

Report No. 69673-XK

The Inspection Panel 

Report and Recommendation

**Republic of Kosovo
Kosovo Power Project (proposed)**

June 20, 2012

The Inspection Panel
Report and Recommendation
On
Request for Inspection

Republic of Kosovo: Kosovo Power Project (proposed)

A. Introduction

This Report

1. In accordance with the Resolution (hereinafter “the Resolution”)¹ establishing the Inspection Panel (hereinafter “the Panel”), the purpose of this Report and Recommendation on Request for Inspection (hereinafter “the Report”) is to make a recommendation to the Board of Executive Directors as to whether the Panel should investigate the matters alleged in this Request, based on the Panel’s confirmation of the technical eligibility of the Request and its assessment of other factors as stipulated in the Resolution. The Panel’s determination of the technical eligibility of the Request, in accordance with the 1999 Clarification,² is set out in Section E(b) below, and section E(c) summarizes the Panel’s observations on others factors to be considered before making a recommendation to the Board. The Panel’s recommendation is presented in Section F.

Panel process

2. On March 29, 2012 the Inspection Panel received a Request for Inspection concerning two Projects: the proposed Kosovo Power Project (KPP; hereinafter “the Project”) and the Lignite Power Technical Assistance Project (LPTAP).
3. The Request was submitted by representatives of the villages of Dardhishte, Lajthishte/Sibovc, Palaj/Cerna Vidoca, Hade of Obiliq Municipality and the town of Obiliq in Kosovo; by the Kosovo Energy Corporation’s independent Kosovo Energy Trade Union³, and by three Kosovar civil society organizations, namely the Institute for Development Policy (INDEP), the Institute of Advanced Studies, and the Forum

¹ International Bank for Reconstruction and Development (Resolution IBRD 93-10) and International Development Association (Resolution 93-6), “The World Bank Inspection Panel”, September 22, 1993 (hereinafter “the Resolution”), para 19. Available at:

<http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/ResolutionMarch2005.pdf>

² “1999 Clarification of the Board’s Second Review of the Inspection Panel”, April 1999 (hereinafter “the 1999 Clarification”). Available at:

<http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/1999ClarificationoftheBoard.pdf>

³ The Kosovo Energy Corporation is also known by its Albanian acronym KEK and the Kosovo Energy Trade Union is also known by its Albanian acronym SPEK.

for Civic Initiative (hereinafter “the Requesters”). The Request was accompanied by 14 annexes, including an annex containing copies of communications with the World Bank, a detailed Technical Annex, and a Letter of Delegation which authorized Mr. Nezir Sinani of INDEP to act as the Requesters’ representative during the Panel process.

4. The Panel registered the Request on April 12, 2012. The Panel notes that the IDA grants for the LPTAP closed on December 31, 2011 and in accordance with Paragraph 14 (c) of the Resolution, the Panel’s registration did not cover LPTAP.⁴
5. Management requested an extension for the submission of its Response⁵ to the Request for Inspection which was received on May 21, 2012.

Key concerns raised in the Request

6. The Requesters state that they are “concerned about the very serious social, economical and environmental impacts related to KPP and LPTAP” and that they have “already felt the impacts of these projects and are worried about what will happen after KPP has been built.”

B. The Project

7. The Project Information Document (PID) of the proposed Kosovo Power Project states that the Government of Kosovo (GoK) has “requested that the World Bank provide support in the form of a partial risk guarantee from IDA for a proposed independent power project that would use domestic lignite coal.”^{6 7}
8. The PID explains that GoK’s “Energy Strategy of Kosovo (2009-2018)” seeks to reduce the energy sector’s carbon dioxide emissions and significantly reduce local air pollution. According to the PID, the “objective of any prospective World Bank financial support to the proposed Kosovo Power Project would be to reduce the environmental impact of electricity generation and strengthen security of supply in

⁴ Paragraph 14 (c) of the Inspection Panel Resolution states that the Panel shall not consider “Requests filed after the Closing Date of the loan financing the project with respect to which the request is filed or after the loan financing the project has been substantially disbursed”. Substantial disclosure is defined as when at least ninety-five percent of the loan proceeds have been disbursed.

⁵ Management Response to Request for Inspection Panel Review of the Kosovo Power Project (Proposed), May 21, 2012, World Bank.

⁶ Project Information Document (PID), Concept Stage, Kosovo Power Project, July 27, 2011, World Bank, p.1.

⁷ The World Bank document titled “World Bank Guarantee Products: IDA Partial Risk Guarantee (PRG)” describes a PRG as “World Bank Guarantees catalyze private financial flows to developing countries by mitigating critical government performance risks that the private financiers are reluctant to assume. Guarantees cover private debt against a government’s (or government entity’s) failure to meet specific obligations to a private or a public project” and “Partial Risk Guarantees (PRGs) cover private lenders, or investors through shareholder loans, against the risk of a government (or government-owned entity) failing to perform its contractual obligations with respect to a private project. International Development Association (IDA) PRGs are available for all countries eligible for IDA credits.” For more details, please visit: http://siteresources.worldbank.org/INTGUARANTEES/Resources/IDA_PRG.pdf

*Kosovo in an economically efficient, environmentally sustainable, and a carbon-neutral manner.*⁸

9. According to Management, Kosovo's domestic energy needs are currently met by the Kosovo A and Kosovo B power plants which produce between 840-900 MW of electricity.⁹ The installed capacity of Kosovo A, built in 1962, was 610 MW but it currently produces about 350 MW. Similarly, the installed capacity of Kosovo B, commissioned in 1987, was 540 MW but it too is not operating at full capacity due to damages to key components and maintenance issues. Kosovo B's economically useful life is up to the year 2030.¹⁰
10. The proposed KPP, according to the PID, is "*envisaged to replace the Kosovo A Power Station*" which is planned to be decommissioned by 2017 in compliance with the European Union Energy Community Treaty to which Kosovo is a signatory.¹¹
11. The Management Response states that the proposed KPP "*would comprise three components: (i) rehabilitation of the existing Kosovo B plant; (ii) construction of a new 600 MW power generation plant ("Kosova e Re Power Project" or "KRPP") using modern technology that is compliant with the European Union Industrial Emissions Directive;¹² and (iii) development of the lignite mine, Sibovc South, that will supply fuel to the new KRPP, as well as to Kosovo A and Kosovo B for their remaining operational lifetimes*".¹³
12. The PID states that the new power plant would be developed as an extension of the Kosovo B power plant site, and will share some common facilities. According to the Integrated Safeguards Data Sheet (ISDS) "*the associated infrastructure that might prospectively be needed would include an electrical interconnection upgrade, a water buffer reservoir, a suitable disposal site for ash, as well as other potentially associated infrastructure such as any necessary upgrades to the Iber-Lepenc water canal.*"¹⁴
13. The total cost of the Project is estimated to be US\$2 billion which is proposed to be financed by the private sector and supported by a US\$50 million IDA partial risk guarantee.¹⁵ Management states that the Bank has provided a "*non-binding, in principle*" expression of support, with the caveat that WBG [World Bank Group]

⁸ PID, p. 2.

⁹ Management Response, p. 4.

¹⁰ Management Response, p. 2.

¹¹ PID, p. 2.

¹² The proposed KRPP would be required to be built as a carbon-capture and sequestration-ready facility to comply with another relevant EU Directive.

¹³ Management Response, p. v.

¹⁴ Integrated Safeguards Data Sheet (ISDS), Concept Stage, Kosovo Power Project, July 27, 2011, World Bank.

¹⁵ Project Profile, Kosovo Power Project, World Bank external website

<http://www.worldbank.org/projects/P118287/kosovo-power-project?lang=en> (information updated as of April 12, 2012).

support is contingent on the proposed Project complying fully with applicable Bank policies, including environmental, social and fiduciary safeguard policies” and the Bank’s Strategic Framework for Development and Climate Change (SFDCC).¹⁶ The Project is categorized as Category “A” and is proposed to be implemented by the Kosovo Ministry of Economic Development.

14. According to available project documents, the Lignite Power Technical Assistance Project (LPTAP) supported the preparation of the Project by financing “*several key activities.*” Such activities included the preparation of a Strategic Environmental and Social Assessment (SESA) for a proposed 2000 MW power plant referred to as Kosovo C, a Resettlement Policy Framework (RPF) consistent with World Bank OP/BP 4.12 on Involuntary Resettlement, a Resettlement Action Plan (RAP) for Hade village, and the purchase of air monitoring equipment.¹⁷ The LPTAP was classified as Category “B” triggering OP/BP 4.01 (Environmental Assessment) “*because of the safeguard impacts of possible follow-on investment projects, the feasibility of which are studied under the LPTAP.*”¹⁸ The project was supported by two technical assistance grants of about US\$8.5 million and was approved by the Board on October 12, 2006. The project closed on December 31, 2011.

C. The Request

15. What follows is a summary of the Request for Inspection. The Request is attached to this Report as Annex I.
16. In their submission to the Panel, the Requesters express concerns about potential serious social, economic and environmental impacts of the proposed Project, and raise concerns about the already high level of environmental degradation in the Project area. Furthermore, the Requesters are concerned about the loss of jobs related to the proposed privatization of energy generation and mining.
17. According to the Request, the proposed new power plant will be built in Obiliq, about 7 km from Pristina, Kosovo’s capital, where two coal power plants - Kosova A and Kosova B - already operate. The Requesters state that the burning of lignite for these two plants has made Obiliq and the surrounding villages the “*most polluted area in Europe*”. The Requesters fear that the increased quantity of lignite likely to be burned in the new plant will worsen such pollution, which, they state, already affects agricultural land, surface and ground waters and air.
18. **Environmental and Health Impacts.** According to the Request, pollution from the existing power plants affects people’s health and pollutes water resources. The

¹⁶ Management Response, p. vii. Management also states (p. vi) that the Expert Panel found KPP to be consistent with the SFDCC and suggested some improvements which are being incorporated in the project design.

¹⁷ ISDS, Concept Stage, Kosovo Power Project July 27, 2011.

¹⁸ Project Appraisal Document, Lignite Power Technical Assistance Project, Kosovo, September 13, 2006, World Bank, page iii.

Requesters state that the people living in the area already confront rising health issues – e.g. higher incidence of cardiovascular and neural diseases and harm to children’s cognitive abilities – due to the release of pollutants from coal combustion. In addition, they state that discharges of some pollutants in the water adversely affect people and livestock, and the general health of the population who use domestic animal products.

19. The Technical Annex attached to the Request provides additional details on the Requesters’ concerns and raises questions about the adequacy of the Strategic Environmental and Social Assessment (SESA) carried out under the LPTAP. More specifically, the Technical Annex states that since the Bank has not made it clear whether the SESA will serve as the Environmental Assessment for the proposed KPP, it can be assumed that this is the only analysis prepared to meet the requirements of OP 4.01 (Environmental Assessment). Furthermore, it states that the SESA does not meet requirements of OP 4.01 related to environmental, health and social impacts, consideration of alternatives, and consultations with affected communities.
20. **Water Shortages.** The Request also points to water shortages which, in the Requesters’ view, will be caused by the Project. According to the Requesters, the existing power plants get their water supply from the Iber-Lepenc canal, whose waters are used to irrigate agricultural land in three municipalities, including Obiliq, and to supply water to the Badovc Lake which is the main source of potable water for Pristina. The Requesters state that the new power plant will also use water from the Iber-Lepenc canal and claim that increased use of this water for power generation will result in water cuts for Kosovo’s capital and less water for irrigating agricultural land.
21. **Economic Impact.** According to the Requesters, the Project will cause negative economic impacts in the Obiliq area. They maintain that 70% of the Obiliq Municipality has been declared a zone of national interest for lignite mining in order to supply lignite to the power plants. As a result of this declaration, local people cannot develop existing or new homesteads. According to the Request, potentially affected people have not been included in any resettlement project that could relocate them to a new area. In addition, power cuts occur systematically in the area and this, in the Requesters’ view, *“increases the risk of accidents for the population who live in the ‘backyard’ of power plants and existing mines.”* Moreover, the Requesters claim that the villages of Hade, Dardhishte and Lajthishte were not included in any plan to receive compensation for air, water, and land pollution.
22. **Impact on Employment.** The Requesters also claim that hundreds of workers of the Kosovo Energy Corporation (KEK) will be dismissed when the Kosovo A plant will be decommissioned by 2017 and the supply and distribution grid will be privatized. They state that the Kosovo Energy Corporation’s independent Energy Trade Union (SPEK) was not consulted about the impacts on employment, and that incentive packages to workers were not developed. They point to technical and commercial losses in the energy distribution system and state that more jobs could be created if projects specific to curbing these problems are developed.

23. **Displacement.** The Request expresses concerns about the need to displace inhabitants of the villages that fall within the area designated for the proposed power plant and the mining field. They allege displacement was already initiated in Hade village for the proposed KPP by KEK under the LPTAP. According to the Requesters, this displacement occurred contrary to World Bank policies and the terms of compensation were unfair.
24. Moreover, they state that any future displacement should occur according to World Bank policies but caution this may not happen as affected people would not be able to relocate within the territory of Obiliq since 70% of it is designated a zone of national interest; they note that resettlement in the remaining 30% of Obiliq's territory may hinder the achievement of World Bank resettlement requirements.
25. **Absence of Transparency and Consultations.** The Requesters state that they have been excluded from the decision-making process regarding the proposed new power plant. They claim they have not had access to relevant information and project documents related to the proposed project and thus were deprived of their right to be involved in the preparation process.
26. **Absence of Studies on Alternative Energy Sources.** Finally, the Requesters assert that civil society in Kosovo has been requesting the World Bank for a full analysis of the energy options of Kosovo and an economic analysis but the World Bank "*still does not have a full overview of what Kosovo provides in term of alternative energy sources.*" They add that the Bank has embarked in the proposed project in a way that violates World Bank's policies and best practices. The Request further mentions analysis prepared by civil society and the University of California, Berkeley which "*showed that Kosovo has a great potential of alternative sources and this potential is economically viable, serves the purpose of protecting health and environment in Kosovo, and creates 30% more jobs.*"
27. The Requesters state that "*Kosovo could meet its energy needs by using a combination of an upgraded Kosovo B, energy efficiency measures, and renewable energy sources.*" They state that stopping transmission losses could yield enough electricity such that a decommissioned Kosovo A would not need to be replaced by new generating capacity. They also allege that the Bank did not adequately consider the potential of renewable energy resources such as hydro power, wind and solar energy,¹⁹ and that the Bank's analysis does not examine a meaningful mix of base, load-following and peaking units.²⁰
28. The Requesters state that they have raised these issues with relevant World Bank staff on numerous occasions, most recently in a letter dated March 5, 2012, and are not satisfied with the response received. The Requesters ask the Board of the World Bank to "*immediately address all demands and concerns raised on the concerned projects.*"

¹⁹ Technical Annex to Request for Inspection, p. 17.

²⁰ Technical Annex to Request for Inspection, p. 27.

29. The above claims may constitute, *inter alia*, non-compliance by the Bank with provisions of the following operational Policies and Procedures:

OP/BP 4.01	Environmental Assessment
OP/BP 4.12	Involuntary Resettlement
OP/BP 10.04	Economic Evaluation
OMS 2.20	Project Appraisal

30. The Panel notes that the Office of the Compliance Advisor/Ombudsman (CAO) of the International Finance Corporation (IFC) received a complaint in August 2011 related to the IFC-financed Kosovo KEK Project (#29107). The IFC Project provides assistance to GoK to privatize KEK's energy distribution functions. The concerns raised in the CAO complaint relate to the social and environmental impacts of the privatization of KEK, access to information, and the lack of an appropriate Social and Environmental Assessment. The CAO concluded in its April 18, 2012 Appraisal Report that the case merited a compliance audit of IFC. The CAO Appraisal Report states “[d]ocumentation reviewed by CAO show that the IFC followed the applicable procedures within what it defined as the Advisory Services project. However, it is unclear whether appropriate guidelines exist to ensure that IFC delineates the scope of Advisory Services projects, and the scope of the due diligence review, so that the outcomes of the Advisory Services are consistent with the desired effect of IFC policy provisions.”²¹ The CAO is presently developing a Terms of Reference for its compliance audit.

D. The Management Response

31. As stated earlier, the Management Response was submitted on May 21, 2012. A brief summary follows, and a complete copy is attached to this Report as Annex II.
32. Management states that the Project is presently at a concept stage and major parts of project assessment are yet to be completed. Therefore, according to Management, it would not be able to decide for another year whether to propose the KPP for Board consideration.
33. Management asserts that because of the stage of the project processing, there has been no violation by the Bank of its operational policies and procedures which has, or is likely to, cause harm to the Requesters. Management notes that the Request describes pre-existing conditions and is based on an assumption that the Bank will fail to follow its policies and procedures. Management states that the claims of harm relate to “(i) existing and historical conditions on the ground (air, water and land pollution, economic impact from zoning, water usage); (ii) issues that are outside Bank policy and Panel mandate; or (iii) are based on the general assumption that the proposed

²¹ CAO Appraisal Report, Kosovo KEK, April 18, 2012. Available at: http://www.cao-ombudsman.org/documents/CAO_Appraisal_Report_C-I-R7-Y12-F158_ENG.pdf

Project would be carried out in noncompliance with Bank policy leading to direct and serious harm” which are unlikely to arise from the proposed Project.

34. Management agrees that the impacts noted in the Request are “*severe and have persisted since the two power plants began operation in 1962 (Kosovo A) and 1983 (Kosovo B).*” However, Management notes that new power generation is needed to allow the decommissioning of Kosovo A and the rehabilitation of Kosovo B, both of which are “*responsible for the associated adverse impacts.*”²²
35. Management states that a comprehensive Environmental and Social Impact Assessment (ESIA) will be undertaken for the Project, and is expected to be prepared in 12-15 months. According to Management, the ESIA will meet all requirements of OP 4.01 (Environmental Assessment), and a draft Terms of Reference for the ESIA has been prepared and will be publicly disclosed to seek comments.
36. **Kosovo Energy Sector.** Management states that energy supply is a key constraint to Kosovo’s economic and social development. Priorities in the sector are reconstruction and rehabilitation of the power generation and distribution systems, and the restructuring of corporate governance of the power utility KEK. Management notes that energy consumption and peak demand for energy in the country has grown in the past decade by almost 90 percent. According to the Bank’s December 2011 Options Study, the peak demand on the Kosovo Power System is forecasted to grow from 1,158MW in 2010 to 2,152MW in 2025 – i.e. 85% over a period of about 5 years.²³
37. Kosovo has the third largest lignite reserves in Europe, and Kosovo A and B power stations, though highly polluting, produce about 840-900MW of electricity. However, according to Management, these sources are unreliable – out of the five generating units of Kosovo A, two are out of operation and the remaining three produce up to 350 MW of electricity which is below their installed capacity of 610 MW; similarly, Kosovo B is frequently out of operation due to maintenance issues. Additional supply of about 5-17 percent of annual consumption is imported.
38. Management states that between 2001 and 2006, the Bank provided three Energy Sector Technical Assistance Projects which assisted in developing a long-term strategy, a long-term investment program, and technical and institutional capacity. Furthermore, the LPTAP assisted in developing a safeguards framework and the SESA for the then proposed 2000 MW Kosovo C power plant.
39. According to Management, after considering environmental, social, and financing concerns, it was decided to plan for a power plant of 600MW capacity, now known as KRPP, whose objective is to meet only domestic demand. Hence, according to Management, the Government, with support from donors, has adopted an approach which entails (i) closing Kosovo A by 2017, and replacing it with a privately operated

²² Management Response, p. 6.

²³ Economic Base Case Demand Forecast. Background Paper: Development and Evaluation of Power Supply Options for Kosovo. December 2011. Prepared by DHInfrastructure and reviewed by World Bank staff.

KRPP; (ii) rehabilitating and upgrading Kosovo B with private investment while ensuring compliance with EU environmental standards, (iii) privatizing electricity distribution in an effort to reduce technical losses; (iv) improving payment enforcement and raise tariffs to reflect full cost recovery; (v) addressing Kosovo A and B's environmental legacy; (vi) investing more in energy efficiency; and (vii) increasing the use of renewable energy.

40. Management points out that the decommissioning of Kosovo A and upgrading of Kosovo B are also legal obligations which Kosovo has under the EU Energy Community Treaty.

41. **Environmental Pollution.** Management states it is *“aware of the severe adverse environmental legacy and ongoing environmental concerns associated with the Kosovo A and B power plants”* which have *“caused significant deterioration of the air, soil, and water quality in the vicinity of the plants – with likely negative impacts on the health of households living in the area.”*²⁴

42. Management states that the Government's energy strategy is expected to lead to a reduction of environmental impacts of the power sector, and the proposed ESIA will assess *“alternatives to the proposed KPP...as well as investigate and assess the emissions and impacts of the proposed Project”*. The ESIA is expected to assess *“in detail (i) the reduction in impacts due to proposed decommissioning of Kosovo A; (ii) impacts likely to be caused by emissions from the proposed KRPP; (iii) the (reduced) impacts from proposed improvements to Kosovo B; (iv) impacts from the proposed development and operation of the Sibovc South lignite mine; and (v) implications of the proposed KPP for air, soil and water quality and other environmental parameters such as noise levels.”*²⁵

43. **Water Shortages.** Management states that the concern regarding water shortages will be analyzed in the ESIA. Management points to a number of studies that have examined water availability and competing water uses, including one by the Bank in 2011 titled *“Water Security in Central Kosovo”*. The latter concluded that investments are needed in the Iber-Lepenc canal to enable its improved functioning. Management notes that in response to the findings of this 2011 study and suggestions made during the Country Partnership Strategy (CPS) FY 12-15 consultations, a water supply project has been included in the FY 12-15 CPS. Moreover, a feasibility study for the maintenance of the Iber-Lepenc canal is being considered by the Western Balkans Investment Framework. Management states that the issue of water shortages will be *“carefully analyzed in the context of the preparation of the proposed Project.”*²⁶

44. **Economic Impact.** Management agrees that a 2004 Government decision limited the rights of households located in Hade, Sibovc, Leshkooshiq and Cerna Vodice villages of the Obiliq municipality by not allowing new construction or expansion. These

²⁴ Management Response, p. 7.

²⁵ Management Response, p.8.

²⁶ Management Response, p. 8.

villages fall within a “Zone of Special Economic Interest” and these restrictions may have affected the livelihoods of some residents. These restrictions, according to Management, were reconfirmed in 2009 and superseded in 2011 when the Spatial Plan for the Zone, also known as the New Mining Field (NMF), was adopted by the Assembly. Management states that the NMF covers a 150 square kilometer (km²) area, and is considerably larger than the 10.5 km² area likely to be affected by the Sibovc South mine expansion.

45. Management further states that the ESIA will analyze the potential livelihood related impacts of the proposed KPP on the residents in the KPP affected area and propose mitigation. Also, should the Bank decide to support the proposed KPP, it will “*draw the Government’s attention to the need to address the legitimate concerns of residents in the non-KPP portion of the NMF area.*”²⁷
46. **Displacement.** Management states that the Resettlement Policy Framework (RPF), developed with financing from the LPTAP in accordance with Bank policies, “*will apply to all resettlement associated with the proposed KPP.*” The Resettlement Action Plan (RAP) of Hade village, according to Management, was also prepared with financing from the LPTAP in accordance with the RPF. Management states that the Shala neighborhood of Hade village “*will be relocated from the Sibovc South mine field since it is close to the edge of the mine from which extraction of lignite has started.*” Management notes that infrastructure and housing plots are “*already being developed*” at the Shkabaj relocation site.²⁸
47. Management agrees that issues remain in relation to the resettlement carried out in 2004/5 by the United Nations Mission in Kosovo (UNMIK) when, on an emergency basis, a number of Hade households that were at risk of a landslide were evacuated. Management notes that this evacuation was not part of any Bank-financed project, but that the Bank provided technical advice on the resettlement process to UNMIK and the then Kosovo Provisional Institutions of Self Governance (PISG). Management states that this resettlement is “*ongoing*” and the Government is “*planning to accommodate the people displaced in 2004 from Hade village at the new resettlement site (Shkabaj)*” and that the Bank will provide the Government “*technical advice and use its good offices to encourage the Government to engage the resettled households to resolve outstanding issues.*”²⁹
48. **Absence of Transparency and Consultations.** Management states that it has met with the Requesters several times in the past few years, corresponded with them, disclosed many documents, and responded to meeting invitations sent by them. Furthermore, Management states that in addition to the more recent consultations held in relation to the report of the External Expert Panel related to the SFDCC and the CPS, more than 50 consultations were held during the past 6 years in preparation of

²⁷ Management Response, p. 8.

²⁸ Management Response, p. 9.

²⁹ Management Response, p. 9.

the SESA, RPF, and RAP and summaries of these documents were shared in English and the local language.

49. **Impact on Employment.** Management states that while the overall impact of the proposed KPP on Kosovo's economy will be positive, it recognizes there may be potential job losses due to the closure of Kosovo A and the privatization of mining and generation operations. Management notes a number of steps already taken by the Government to analyze the impacts on KEK workers, including a requirement that the prospective private sector operator "*retain workers for an initial 3-year period and match terms of service with those provided by KEK, among others.*" Furthermore, Management states that the Bank will carry out a "*detailed analysis of the impact of the proposed KPP on the current employees of KEK to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures.*"³⁰
50. **Absence of Studies on Alternative Energy Sources.** Management states that the Bank and other donors have commissioned several studies in the past 10 years about Kosovo's energy sector. Furthermore, Management notes that a December 2011 study titled "*Development and Evaluation of Power Supply Options for Kosovo*" was commissioned by the Bank prior to providing its "in principle" PRG support. This study concluded that "*the lowest cost reliable energy supply to meet Kosovo's base load and peak demand is a mix of thermal and renewable energy sources that includes about 750 MW from hydropower and other renewable sources, rehabilitation of Kosovo B and construction of the 600 MW KRPP.*"³¹ Management states that its findings differ from the findings of the University of California, Berkeley study cited by the Requesters and the study prepared by the Sierra Club, and that the Bank team does not share the conclusions of the latter two studies.

E. Panel Review of the Request and Management Response

51. The Panel has carefully reviewed the Request and the Management Response. Panel Chairperson Alf Jerve, together with Deputy Executive Secretary Dilek Barlas and Operations Officer Mishka Zaman, visited Kosovo from May 31-June 2, 2012. During its visit, the Panel team met with the Requesters, their representative, other members of the communities, World Bank staff in Kosovo, KEK officials, officials of the Ministry of Economic Development, and representatives of the European Union and World Health Organization. The Panel's review is based on information presented in the Request, on the Management Response, on other documentary evidence, and on information gathered during the site visit, and meetings with Requesters and Bank Management.
52. The Panel wishes to express its appreciation to all those mentioned above for sharing their views and exchanging information and insights with the Panel. The Panel also

³⁰ Management Response, p. 10.

³¹ Management Response, p. 11.

wishes to thank the World Bank Country Office in Kosovo for providing relevant information and assisting with logistical arrangements.

53. This review includes determination of the technical eligibility of the Request, according to the criteria set forth in the 1999 Clarification (see subsection E(b)), and the Panel's assessment of other factors to be taken into consideration when making a recommendation to the Board, as stipulated in the Resolution and the 1999 Clarification (subsection E(c)). Prior to these subsections, the Panel defines the scope of its assessments with respect to the Project and the role of the Bank (subsection E(a)).

a. Scope of Panel's review and the proposed KPP project

54. The Panel notes that the Government of Kosovo, together with several international donor agencies, is implementing a multi-faceted energy strategy to address Kosovo's increased energy needs and related environmental issues. Important activities under the strategy include decommissioning Kosovo A and replacing it with a new 600 MW power plant (KRPP), rehabilitating and upgrading Kosovo B, developing the Sibovc South lignite mine, and privatizing electricity distribution with the aim to improve efficiency and demand side management. The strategy also includes developing renewable energy sources.
55. The Request raises concerns regarding several aspects of this strategy and related activities, including environmental and social impacts of the project currently under preparation (i.e. the Project or KPP). The Requesters complain about pollution from the operations of Kosovo A and Kosovo B which affects "*agricultural land, surface and ground waters, and air*", and adverse health impacts as a result of such pollution. They are also concerned about previous emergency resettlement in the area and its adverse impacts. Furthermore, the Requesters fear that the decommissioning of Kosovo A and the privatization of energy operations, in general, will result in dismissal of a significant number of workers of KEK. The Request also raises concerns related to the LPTAP, which financed several activities to support the preparation of the proposed KPP project.
56. Management Response notes that while the Government has requested that IDA provide a Partial Risk Guarantee (PRG) for the proposed KPP project, the costs associated with the closure of Kosovo A and rehabilitation of the site will most likely be financed by the European Commission (EC). The International Finance Corporation (IFC) is providing advisory services to the Government to privatize electricity distribution and supply business in Kosovo.
57. In its assessments, the Panel focused on the activities to be financed by the Bank under the proposed KPP project. Management Response states that the Project presently is at a concept stage (including the issuance of a Project Information Document), and also confirms that the Bank has provided a "*non-binding, in principle*" expression of support for the proposed KPP. The Panel was informed by both the Bank and the Government that this expression of support is an important element of

the Request for Proposals recently issued to potential investors for KPP. As noted clearly in the definition of “project” in the 1996 Review of the Resolution Establishing the Inspection Panel “[t]he word “project” as used in the Resolution has the same meaning as it generally has in the Bank’s practice, and includes projects under consideration by Bank management as well as projects already approved by the Executive Directors”.³² Thus the ongoing preparation process for the Project falls within the mandate of the Panel.

58. The Panel understands the scope of the proposed KPP, as explained in the Management Response, to be that it “would comprise three components: (i) rehabilitation of the existing Kosovo B plant; (ii) construction of a new 600 MW power generation plant (“Kosova e Re Power Project” or “KRPP”) using modern technology that is compliant with the European Union Industrial Emissions Directive; and (iii) development of the lignite mine, Sibovc South, that will supply fuel to the new KRPP, as well as to Kosovo A and Kosovo B for their remaining operational lifetimes.”
59. As the Panel noted in its Notice of Registration,³³ the Lignite Power Technical Assistance Project (LPTAP) closed on December 31, 2011 and the Panel’s registration did not cover LPTAP. The Panel also noted that, regardless of the source of financing, studies carried out to support the preparation of the KPP need to be considered as part of the KPP project and thus come under the purview of the Panel in the context of this Request.

b. Determination of technical eligibility

60. The Panel is satisfied that the Request meets all six technical eligibility criteria provided for in paragraph 9 of the 1999 Clarification.
61. The Panel notes that its confirmation of technical eligibility, which is a set of verifiable facts focusing to a large extent on the content of the Request as articulated by the Requesters, does not involve the Panel’s assessment of the substance of the claims made in the Request. It follows from this interpretation, that technical eligibility in and of itself would not be a sufficient basis for recommending an investigation.
62. Criterion (a): “The affected party consists of any two or more persons with common interests or concerns and who are in the borrower’s territory.” The Panel confirms that the Requesters share common concerns with respect to the Bank’s compliance with its policies and that different categories of Requesters have common interests

³² First Review of the Resolution Establishing the Inspection Panel: 1996 Clarification of Certain Aspects of the Resolution, paragraph on “Eligibility and Access”. Available at:

<http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/1996ReviewResolution.pdf>

³³ Notice of Registration, Re: Request for Inspection Republic of Kosovo: Kosovo Power Project (proposed), Inspection Panel, April 12, 2012. Available at:

http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/NOR_Kosovo.pdf

related to issues of current or potential harm linked to the proposed KPP project. Furthermore, the majority of the Requesters reside in areas that might be impacted by the investments being considered by the Bank. Hence, the requirement of paragraph 9(a) is met.

63. Criterion (b): *“The request does assert in substance that a serious violation by the Bank of its operational policies and procedures has or is likely to have a material adverse effect on the requester.”* The Panel confirms that the Request raises issues of actual and potential material adverse effects on the Requesters, and that the Request asserts that these harms are linked to serious violation by the Bank of its policies and procedures. The Requesters are also concerned that the Bank may not be able to implement some of these policies in the future, which the Requesters believe is likely to result in harm to them. The Panel is satisfied that the requirement of paragraph 9(b) is met.
64. Criterion (c): *“The request does assert that its subject matter has been brought to Management’s attention and that, in the Requester’s view, Management has failed to respond adequately demonstrating that it has followed or is taking steps to follow the Bank’s policies and procedures.”* The Requesters state that they have raised their concerns with World Bank staff on several occasions but are not satisfied with the response they have received. The Requesters also state in the Technical Annex that they have raised resettlement related concerns with the Bank as far back as 2007, and that their representative has raised their concerns with the World Bank over the past two years in writing and in various meetings and relevant fora. The Requesters also provide details of the written correspondence between their representative and Management. The Panel is satisfied that this criterion has been met.
65. Criterion (d): *“The matter is not related to procurement”*. The Panel is satisfied that the claims with respect to harm and non-compliance included in the Request for Inspection do not raise issues of procurement under the Project.
66. Criterion (e): *“The related loan has not been closed or substantially disbursed”*. As noted earlier, the IDA grants for the LPTAP closed on December 31, 2011 and in accordance with Paragraph 14 (c) of the Resolution, the Panel’s registration did not cover LPTAP.³⁴ As explained in subsection (a) above, the proposed KPP however is a project under preparation with support of the Bank and is within the Panel’s mandate. The Panel is thus satisfied that this criterion has been met.
67. Criterion (f): *“The Panel has not previously made a recommendation on the subject matter or, if it has, that the request does assert that there is new evidence or circumstances not known at the time of the prior request”*. The Panel confirms that it has not previously made a recommendation on the subject matter of the Request.

³⁴ Paragraph 14 (c) of the Inspection Panel Resolution states that the Panel shall not consider *“Requests filed after the Closing Date of the loan financing the project with respect to which the request is filed or after the loan financing the project has been substantially disbursed”*. Substantial disbursement is defined as when at least ninety-five percent of the loan proceeds have been disbursed.

c. Observations on other factors supporting the Panel's recommendation

68. Before making a recommendation on whether to investigate, the Panel further considered certain other factors, in line with the Resolution. These included: the likelihood that there may be a causal link between the Project and the harm alleged in the Request; whether the harm and the possible non-compliance may be of a serious character, noting that the Panel cannot make any definitive assessment of non-compliance and related harm at this stage³⁵; and review of Management Response with respect to how it has dealt with, or intends to deal with, the subject matter of the Request and possible policy non-compliance. These considerations are outlined below in the context of the key concerns raised by the Requesters.
69. The Panel notes that the Request raises a diverse set of issues and that different groups represented in the Request have their distinct concerns. The Panel met with all these groups to understand whether there is likelihood of a causal link between the harms alleged and the proposed Project, and the Bank's lack of follow-up of its operational policies. Furthermore, the Panel has carefully reviewed Management Response with respect to these issues. The Panel provides observations on the following four subsets of issues of potential serious harm: (i) adverse health effects as a consequence of air, soil and water pollution; (ii) adverse effects on water resources; (iii) adverse effects on livelihoods as a consequence of loss of employment in KEK; and (iv) adverse effects of land acquisition and resettlement.
70. In addition, the Panel also considered whether at this stage the allegations with respect to (v) potential serious violation of Bank policy provisions pertaining to analysis of alternatives to power generation using coal, consultation, and assessment of environmental and social impacts of the proposed Kosovo KRPP (Kosovo e Re) would warrant a Panel investigation. This is considered in subsection (v) below.

i. Adverse health effects as a consequence of air, soil and water pollution

71. The Panel team visited **Dardhishte village**, located in the vicinity of Kosovo A. The main concern of the inhabitants of Dardhishte village is their proximity to Kosovo A, its ash dumps, and the possibility that their village will not be resettled. Dardhishte residents said that they have been living near the Kosovo A plant and its ash dump for almost 60 years, and that the environmental impacts on soil, water, and air have been severe, causing serious health problems. They were concerned that there had not been a proper study of health impacts on the population living in the vicinity of the plant. The Panel was informed that there are some preliminary studies indicating high prevalence of cancer in the area.

³⁵ Paragraph 7 of the 1999 Clarification provides that at the eligibility stage "...the Panel will not report on the Bank's failure to comply with its policies and procedures or its resulting material adverse effect; any definitive assessment of a serious failure of the Bank that has caused material adverse effect will be done after the Panel has completed its investigation."

72. Representatives of the village complained that the work of covering the ash dump close to the village, under the World Bank-financed Energy Sector Clean-up and Land Reclamation Project, is moving slowly and no trees have yet been planted in the areas that have been covered with soil. In the Panel's view, the Request raises concerns of a serious nature with respect to peoples' exposure to historical and current levels of environmental pollution, and reflects a genuine fear of potential harm from the continued combustion of lignite in the power plants.
73. The Panel notes that the Management Response confirms that these conditions will be analyzed in the ESIA for the proposed KPP through baselines studies before Management makes a final decision on its support to the Project and recommends it for Board approval. The Panel notes, however, that it is not clear whether the ESIA would include a survey of existing health conditions.

ii. Adverse effects on water resources

74. The Panel heard from the Requesters and several villagers in the vicinity of the mine and Kosovo A and B that their drinking water, mostly derived from ground water sources, was polluted as a result of the mine and the power plants. They were concerned about the impact drinking this water was having on their health. The Request also states that the population in Obiliq and in Pristina will suffer water shortages when the KRPP is built as it too will use the waters of the Iber-Lepenc canal, which already has many other users.
75. The Panel notes that Management agrees that Kosovo A and Kosovo B and their associated activity have had an impact on water quality in the area, with likely impacts on the health of the residents of the vicinity.³⁶ Management states that the proposed ESIA will analyze in detail the implication of the proposed KPP on water quality.
76. The Panel notes that, with respect to the allegation of water shortages, Management confirms that the issues of water availability for the Project and effects on other water users will be studied and analyzed in the ESIA for the proposed Project. Moreover, the Management Response states that a 2011 Bank study titled "Water Security in Central Kosovo" looked at the issue of adequate supply and quality of water from the Iber-Lepenc canal for domestic and industrial uses in all the municipalities mentioned in the Request, including Pristina and its suburbs. This study concluded that investments are needed to improve the maintenance of the Iber-Lepenc canal and consequently the Bank has included a water supply project in the CPS (FY 2012-2015). Management also states that this issue would be carefully analyzed in the context of the preparation of the proposed Project.

³⁶ Management Response, p. 7.

iii. *Loss of employment of KEK workers and adverse effects on livelihoods*

77. The Request raises concerns of the KEK workers who may be adversely affected by restructuring and privatization of the company. During the Panel team's meeting with SPEK, union members said that the privatization of supply and distribution grid, decommissioning of Kosovo A, refurbishment of Kosovo B and privatization of the Sibovc South mine will lead to retrenchment of approximately 4,100 employees from KEK. They said that neither the government nor KEK is consulting with the employees or their trade union to understand their needs and concerns. They added that the process is not transparent.
78. KEK employees said that they will receive only nine months of salary in case of retrenchment under the Labor Law. They added that there is no social security fund and there is no health insurance. They also claimed that under the circumstances they feel pressured to accept KEK's optional scheme, leave voluntarily, and receive 24 months of salary. They referred to the Government letter indicating the Government's intention to require the private company to retain the employees for three years after the takeover, but they said that this is a short period of time and will not be enough to sustain their livelihood. They said that most of the employees are over 50 years of age and it will be almost impossible for them to find new employment.
79. The Management Response recognizes potential job losses associated with the proposed closure of Kosovo A and privatization of generation and mining operations. Management states that the Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK so as to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures.
80. The Panel notes Management's recognition of the potential of job losses associated with the proposed Project, and the detailed analysis which it plans to conduct with a view to providing recommendations to the Government on how to mitigate adverse impacts. The Panel, therefore, expects that the concerns raised by the Requesters will be adequately considered in this proposed study and that the study will be conducted in consultation with all relevant stakeholders.

iv. *Adverse effects of land acquisition and resettlement*

81. The Requesters raise serious concerns related to land acquisition and resettlement caused by, or likely to be caused by, the expansion of the Sibovc South mine field that will supply the new power plant (KRPP) as well as Kosovo B. In order to understand the concerns of the Requesters, the Panel team visited and met with the residents of Hade village, Palaj/C. Vodica village, Lajthishte/Sibovc village, and Dardhishte village. Hade village is located inside the Sibovc south mining field boundary, Palaj/C. Vodica and Lajthishte/Sibovc are on the immediate edges of the boundary,

and Dardhishte is located next to the existing ash dumps and the existing KEK mining license boundary, but outside the Sibovc South mining field.³⁷

82. **Hade village.** The Requesters claim that displacement of Hade residents for the proposed KPP project already started in 2004. They claim that this displacement took place without developing any plan for resettlement, and in the absence of a national resettlement policy in line with World Bank standards.
83. During its visit, the Panel team met with the residents of the Shala neighborhood in Hade village. Resettlement from Shala neighborhood of Hade village started in 2011 as the Sibovc South mine field is being expanded and the Shala neighborhood is close to the current edge of the Sibovc South mine. Shala residents told the Panel team that while five families moved to temporary locations during the summer of 2011, there are 30 families or more waiting to move. They said that they agreed to resettle and signed an agreement with the Ministry of Environment and Spatial Planning and Municipality of Kastriot/Obiliq. Moreover, they said that due to landslide risk, operation of heavy machinery close to their houses, and pollution, *“life is very difficult in Shala neighborhood and conditions are grim.”* They added that the children are in danger because of a steep slope caused by excavation for the mine field and a new coal conveyor belt which is only 20m away from their houses. They stated that their preference is to move as soon as possible, but are not able to do so for the following two reasons.
84. Firstly, they are not satisfied with the implementation of the agreement with the Ministry. They said that their land and houses were expropriated and compensation paid in October 2011. However, contrary to Article 3.3 of the Agreement,³⁸ they are not receiving any payment for temporary housing and food, and as a result they do not have the funds to be able to move from their houses.
85. Secondly, the Shala community is proposed to relocate to a new site (Shkabaj) which is closer to Pristina city. The Shala residents said that since the construction work in the new relocation site in Shkabaj is very slow, they do not know when they will be able to start building their new houses in this new site. The residents showed the Panel

³⁷ See Map IBRD 39302 attached to Management Response for locations of these villages with respect to the Sibovc mining field.

³⁸ Paragraph 3.3 of Article 3 of the Tripartite agreement between the Ministry of Environment and Spatial Planning, Municipality of Kastriot/Obiliq, and Representatives of the inhabitants of Shala neighborhood of Hade village states the following *“Emergency (Lease and Food) – According to the Law on Expropriation (Article 20 – temporary accommodation) compensation for lease and food is provided for a 4 months period following the expiration of 30 days period from the compensation of property and assets (Article 11, paragraph 9), however if during the abovementioned period the allocation of parcels fails, in that case the compensation of emergency shall continue, until the allocation of parcels, transfer of ownership and (completion of) the infrastructure at the Location “New Hade” – Shkabaj, which shall be provided by the Expropriating Body (MEST), with the budget of the Requesting Entity (KEK j.s.c.)”* (This is an unofficial translation of this paragraph provided by the Inspection Panel.)

team the relocation site in Shkabaj. They said that while they like the site and they want to move to this new site quickly, they are not sure when the Municipality will be able to finish the infrastructure works in the site and allocate the land to them.

86. The Shala residents also said that they cannot access their land which is behind their houses because of a canal that KEK has opened which cuts through the middle of their land. They said that this land was not expropriated and they did not receive compensation for it.

87. **Palaj/C. Vodica, and Lajthishte/Sibovc villages.** The Panel team met with residents of these villages who have similar concerns. The residents said that they do not object to projects of national interest, however, they do not want the situation of the villagers to worsen. They said that they have been informed that they will have to relocate sometime in the future due to expansion of the Sibovc South mine field. In the meantime, they fear that *"their lives are frozen"*. Since the area has been declared an *"Area of Special Interest"*, further public investments in their villages are unlikely, and people also believe that they may not be allowed to improve their houses or that such improvements may not be compensated when expropriation eventually takes place. It may take 10-15 years before mining reaches some of these villages, and people do not want to live under such conditions of uncertainty. In fact, they requested that resettlement should take place well in advance of the mine boundary reaching them, in accordance with a RAP that is of international standards, and that it be done in a carefully planned manner which allows for the relocation of the entire village and not neighborhood by neighborhood as is being done in Hade village. They said that they do not want to wait until the mine comes very close and be resettled on an emergency basis, similar to what happened in Hade village in 2004/2005.

88. Management Response notes that a Resettlement Policy Framework (RPF) has been developed under the LPTAP and will apply to all resettlement associated with the proposed KPP. Management notes that a Resettlement Action Plan (RAP), also financed through LPTAP, has been prepared for the Shala neighborhood of Hade village, in consultation with the affected communities. Management states that the RPF, the existing RAP and any additional RAPs which will be developed for other affected communities based on the RPF, would govern the relocation and resettlement of any population that may be displaced for the proposed Project. Management also states that the ESIA, which will be prepared for the proposed KPP project will analyze impacts from the proposed development and operation of the Sibovc South mine. It is the Panel's understanding that this will include the ongoing resettlement from the Shala neighborhood.

89. The Panel notes that currently the Bank does not have a monitoring role with respect to ongoing resettlement activities related to the proposed KPP project, including the Hade resettlement. The LPTAP grant, which financed the preparation of the Resettlement Policy Framework and the RAP for Hade village, is closed, there is no other active WB project that includes supervising resettlement actions, and the ESIA still needs to be prepared for the proposed KPP project. As noted earlier, Management states that all resettlement related to the proposed KPP will be in accordance with the

Bank Policy on Involuntary Resettlement. It is the Panel's understanding that the Bank will assess the implementation of all resettlement activities related to the proposed KPP project, which includes the resettlement from Hade village, to ensure compliance with Bank policies before the proposed financing for the KPP is submitted for approval to the Board. Failure by the Bank to properly carry out this responsibility would give affected people the option to seek recourse under the Panel process.

v. *Allegations of serious violation of Bank policies*

90. **Analysis of Alternatives.** Several Requesters told the Panel team that they were not convinced of the need for a new power plant as they felt Kosovo's energy requirements could be met by curbing transmission losses which they believed were in the range of 37%-50%. Moreover, they believed Kosovo's base load demand gap was 450 MW and not 600 MW (the proposed production of KRPP); they alleged the latter was the gap in peak demand. The Requesters also stated that the Bank has failed to consider sustainable alternatives and that there were no studies on Kosovo's alternative energy sources. Moreover, the Requesters disagree with the findings of the World Bank's independent External Panel of Experts, which assessed the proposed Project against the six screening criteria of the SFDCC.
91. Management notes that several studies have been carried out in the past 10 years on Kosovo's energy sector, including some financed by the World Bank. Management states that the December 2011 World Bank study "Development and Evaluation of Power Supply Options for Kosovo", after taking into account the economic, financial and environmental costs (including local and global externalities), concluded that "*the lowest cost reliable energy supply to meet Kosovo's base load and peak demand is a mix of thermal and renewable energy sources that includes about 750 MW from hydropower and other renewable sources, rehabilitation of Kosovo B and construction of the 600 MW KRPP.*"³⁹
92. The Panel notes that the External Panel of Experts found the Project to be in compliance with the SFDCC screening criteria subject to certain recommendations. While reviewing energy alternatives in the coming 10-15 years, the External Expert Panel unanimously concluded that even with energy efficiency measures and utilization of renewable energy potential, Kosovo's base-load energy generation could only be met by thermal power plants in the foreseeable future.⁴⁰
93. The Panel notes that Management states in its response that the proposed ESIA for the Project will assess alternatives to the proposed KPP to meet energy needs, in addition to assessing the emissions and impacts of the proposed Project.⁴¹ It is the Panel's understanding that the study of alternatives under the ESIA will include both a 'non-project scenario' (i.e. assessing foreseeable developments without implementing the

³⁹ Management Response, p. 11.

⁴⁰ Beér, Mielczarski and Taylor, (2012). *Kosovo: Kosovo Power Project Report of the SFDCC External Expert Panel to the World Bank.*

⁴¹ Management Response, p. 8.

Project) and an 'alternative energy scenario' (i.e. assessing the potential to use alternative energy sources and energy efficiency measures to meet required energy demands).

94. **Consultation.** The Panel was told by some Requesters that the Bank had not shared relevant documents with them upon request on the pretext that the documents were either in draft form or were deemed confidential. Some Requesters mentioned that they had had consultations about resettlement some years ago, and the villagers the Panel met in the Shala neighborhood confirmed that they had been consulted on the drafting of their RAP.
95. Management states in its response that it has met and corresponded with the Requesters several times over the past few years, and disclosed dozens of documents online in both English and Albanian. Management further states that more than 50 consultations were held in the past six years with local communities with respect to the preparation of the SESA, Resettlement Policy Framework, and the Shala village RAP. Moreover, Management states that civil society has been consulted on the proposed KPP related energy sector studies and assessments.
96. The Panel notes that Management emphasizes in its Response that the proposed ESIA will be prepared in consultation with the Requesters, that Management will continue to interact with civil society during the preparation of the proposed Project, and that Management will disclose all documents in line with the Bank's Access to Information Policy. Management mentions that some documents requested by the Requesters did not exist at the time the initial disclosure request was made, but that these will be disclosed when available.
97. **Assessment of environmental and social impacts of Kosovo A and B and proposed KPP.** The Panel team heard from many villagers about the profound environmental and social impacts in the area from the existing Kosovo A and B power plants and the lignite mines, and the fear that these may be compounded with the construction of the proposed KRPP and the expansion of the Sibovc South mine. Air pollution, water pollution, soil degradation, and corresponding health impacts were the most commonly heard concerns with regard to the existing facilities. Job losses as a result of the closure of Kosovo A and privatization of the generation and mining entities was another common fear.
98. Management states in its response that *"any involvement by the Bank in providing such support [to the proposed KPP] will depend on a series of activities that include economic, financial, environmental and social assessment of the proposed KPP, other Bank initiated studies (in addition to those already conducted), sharing and discussion of studies with relevant stakeholders, and scrutiny by an independent Panel of Environmental and Social Experts. Only if these activities indicate, in the judgment*

of Management, that the proposed KPP is viable, will the proposed Project be submitted to the Bank's Board for its consideration."⁴²

99. The Panel notes, with respect to the analysis of alternatives, consultations, and the assessment of environmental and social impacts of the existing power projects and the proposed KPP, that Management is aware of the importance of these concerns and has committed to carry out adequate studies, which meet Bank policies and procedures, in consultation with relevant stakeholders. During its field visit, the Panel was informed by several Requesters and community members of their hope that the existing environmental and social impacts suffered by their villages would be mitigated, and any future adverse impact from the proposed KPP would be prevented as much as possible.

F. Recommendation

100. The Panel considers that the Requesters raise important and legitimate concerns about potential future impacts of the proposed Project. Non-compliance with Bank policies, if it were to occur, could potentially contribute to the harms of the type raised in the Request and noted above.

101. The Panel understands that important analytical work, such as the ESIA, the RAPs for villages that may be resettled, and the proposed labor study, are yet to begin. The Panel notes Management's explanation that it intends to ensure all analytical and relevant preparatory work will comply with Bank policies and procedures moving forward. The Panel understands that this commitment also implies ensuring that the ongoing and future resettlement will be implemented in accordance with Bank policy and provisions, as laid out in the respective RAPs and land acquisition and compensation agreements with the affected households.

102. It is the Panel's assessment that, at this early stage in the Project preparation process and prior to the start of the ESIA for the Project, there are no key Bank activities or decisions relevant to the concerns raised in the Request with respect to the Project that can be reviewed by the Panel as a matter of policy compliance. The Panel, therefore, does not recommend at this stage an investigation of whether the Bank has complied with its operational policies and procedures. The Panel notes that affected people will have recourse to the Panel at a later stage in the Project cycle if they so wish.

⁴² Management Response, p. 11.

Annex I

Obiliq, Kosovo
March 29, 2012

Mr. Alf Morten Jerve
Chairperson
Mr. Peter Lallas
Executive Secretary

Inspection Panel
World Bank
1818 H Street NW Washington DC, 20433
USA

Complaint addressed to the World Bank Inspection Panel regarding the Kosovo Power Project

Dear Alf Morten Jerve and Peter Lallas,

We are writing to ask that the Inspection Panel investigate two World Bank projects: Kosovo Power Technical Assistance Project (LPTAP no. P097635) and Kosovo Power Project (KPP no. P118287). This complaint is signed by the representatives of the following villages: Darshishtë, Lajthishte/Sibofc, Cerna Vodica and Hade of Obiliq, and the town of Obiliq. The complaint is also filed by the KEK Independent Union – SPEK, signed by Izet Mustafa on its behalf. The complaint is also supported and filed by the Kosovo Civil Society, respectively Krenar Gashi on behalf of the Institute for Policy Development, Agron Demi from the Institute for Advanced Studies and Mexhide Spahija from the Forum for Civic Initiative.

We are concerned about the very serious social, economical and environmental impacts related to KPP and LPTAP. We have already felt the impacts of these projects and are worried about what will happen after KPP has been built.

We have raised these issues with the responsible WB staff,¹ but were not satisfied by the response that we received.

With regards to both abovementioned projects, we believe that the following WB Policies have been violated:

OP 4.01 – Environmental assessment;
OP 4.12 – Involuntary displacement
OP 10.04 – Economic evaluation
OMS 2.20 – Project evaluation

¹ Community letter sent on 5th of March 2012; Regular communication of the civil society, respectively Nezir Sinani and his colleagues addressed to the World Bank;

Project summary

Power Technical Assistance Project – LPTAP

This project span was 2006 until present day, as far as we understand, and was implemented as preparation for the Kosovo Power Project – KPP. During implementation, the project has produced some important documents on KPP. Such documents include Strategic Environmental and Social Assessment in 2008 and framework policy on displacement in 2011. Another economic assessment of the project was performed by the World Bank, as a part of the project although it is unclear if it was implemented as a project component. During the implementation of the project, we faced increasing social, economic and environmental problems, since displacement of population continued from the certain area of the Kosovo Power Project (KPP), while due environmental protection measures were not taken.

Kosovo Power Project – KPP

World Bank has made it official to the Kosovo Government that it will consider a partial guarantee for the risk from construction of the new lignite-based power plant. The same project provides for expanding the current mining throughout Obiliq villages.

Many of our neighbours have been displaced and we do not know how many more will be moved; it will not result in reducing power price for the affected inhabitants and shall negatively impact many aspects of social-economic and environmental life, as described hereunder.

Social, economic and environmental problems

Environmental pollution

KPP is foreseen to be implemented in Obiliq, an area where ‘Kosova A’ and ‘Kosova B’ power plants already operate. Use of lignite for the needs of both existing power plants and technological treatment in this area turned Obiliq and surrounding villages into the most polluted area in Europe². Pollution is comprehensive and also affected agricultural land, surface and ground waters, and air.

This area is only 7 km from the Kosovo’s capital, Prishtina. Consequences of burning coal for power generation, directly affects our lives and those of the other 500.000 inhabitants of the capital.

Increasing quantity of lignite burned for power generation through power plant “New Kosovo” will make things worse for the inhabitants of Obiliq and surrounding villages, as well as people living in Prishtina.

We are facing health issues as a result of releasing various pollutants to the environment, resulting from coal combustion. Release of smoke, sulphide dioxide, iron, zinc, mercury and other pollutants, has direct impact on increasing incidence of cardio-vascular and neural diseases among our communities. Our children are especially vulnerable and their cognitive abilities will be affected from

the release of mercury and iron to the environment, while release of hydrogen chloride will affect their lungs.

The greatest impact comes as a result of water pollution. Water is polluted from the discharge of lignite ashes, airborne ash and other pollutants from the lignite discharge. Since 60% of the communities living in the polluted area are farmers, our flocks of animals are also affected by pollution, since they use the river and ground waters for their animals. Thus pollution affects the human health as a result of using domestic animal products.

Water shortage

KPP provides that current supply of power plants in Obiliq and supply to the new power plant is done using the Iber Lepenc canal, which supplies water from Iber Lake in the north of Kosovo. The same canal is used for irrigation of agricultural land in three municipalities of Kosovo: Obiliq, Vushtrri and Mitrovica. The same canal supplies water to the Badovc Lake, which supplies Prishtina with potable water. Prishtina and its suburbs constantly face potable water shortage. Increasing use of water from this canal as a result of increasing the generating capacity will necessarily result in water cuts for Prishtina. This may also leave agricultural land with no water resources for irrigation.

We need water for our homes and our farms. But if the new plant is built there will be no water for us to use.

Economic impact

Around 70% of the Obiliq territory since 7 years has been declared a zone of national interest. This is because the area shall be used for lignite mining for the needs of power generation in the country. Upon declaration of the interest zone, local inhabitants of the zone did not enjoy the right of developing their households, and they were not allowed to develop new households in order to advance the social-economical situation of their families. Meanwhile when we were deprived of this right, we were not included in any special project for displacement, in an area where they would exercise such rights. This applies to Hade, Dardhishte and Lajthishte villages of Obiliq.

During the deprivation of this right, we have not received any benefits, just like we did not enjoy any compensation for pollution of the water, air and land. We have enjoyed such a right during 70' and 80', but not since 90'.

Moreover, we are subject to systematic power cuts and we were never spared by this corporation. This increases the risk of accidents for the population who live in the "backyard" of power plants and existing mines.

Displacement of population

Since the LPTAP initial implementation stage, KEK started expropriation of Hade inhabitants for KPP. The displacement started without developing any plan of activities for displacement of inhabitants and with no national displacement policy that would be in line with World Bank displacement policies. Thus the displacement was conducted in contradiction with such policy and resulted in unfair and low displacement compensation paid to inhabitants of such villages.

In order to open a new lignite mining field and start construction of the new power plant, the inhabitants living in the same villages should be displaced in order to make way for the KPP. National displacement policies provide that us and our neighbours in Obiliq shall be displaced within the territory of Obiliq. Knowing that around 70% of the Obiliq's territory is of national interest, it means that the displacement shall be done in the remaining part of the territory. This no doubt creates a serious problem to the displacement process, because it hinders the proper displacement required by World Bank displacement policies.

Displacement should be performed in line with these policies, while displacement of the population in the future shall no doubt require revision of current displacement policies and each criterion in this regard should be met.

Absence of transparency and consultations

Since the engagement of the World Bank in power projects in the country, Obiliq community, Union of KEK Workers and civil society have been excluded from the decision-making processes. Requests of the civil society for access to official documents, which is provided by the national legislation, have been constantly turned down by the Ministry of Economic Development, project leading agency, and also by the World Bank almost in all cases. Thus absence of authentic information and absence of access to official documents has deprived us the right to get involved in these projects. This is in contradiction with the World Bank policies on the right of information and data disclosure.

Through the present complaint, we would like to refer once again to all requests filed to the World Bank and the Ministry of Economic Development, for access to information regarding LPTAP and KPP. Such requests were submitted mainly by Mr. Nezir Sinani on behalf of civil society, and the community of Obiliq and surrounding villages.

Impact on employment

Opening of new lignite mining area and construction of 'New Kosovo' power plant shall be accompanied with permanent decommissioning of "Kosova A" power plant in 2017 and revitalization of "Kosova B" power plant. This will be accompanied with privatization of supply and distribution grid. Combination of these projects will result in dismissing hundreds of current workers of the Energy Corporation.

World Bank and the Kosovo Government have never consulted the Union of KEK Workers about the problem, and did not take any other activity to handle the problem. WB is obliged through best working practices to take specific measures towards workers who are affected by the KPP implementation process. Development of incentive packages to such workers is not seen in the horizon, while WB has failed to include in this project the investments in other areas of power development in Kosovo.

Kosovo now loses about 40% of generated and imported power as a result of technical and commercial loses in the grid, while power demand is 30% higher as a result of such loses, and as a result of absence of projects for energy efficiency and proper insulation of houses. Development of specific projects to handle these two problems would result in increasing number of employees, and according to current international trends, the number of jobs in this area is much higher than

investment in the new power plant. While not having the Poverty Reduction Strategy for Kosovo, WB has failed in analyzing the needs for economic development of the country, and consequently failed to focus investments in projects that generate more jobs for Kosovans.

Absence of studies on alternative energy sources

Kosovo civil society, since months, has requested the World Bank a full analysis of energy potential in Kosovo and an economic analysis on advantages of this potential versus various options. World Bank still does not have a full overview of what Kosovo provides in term of alternative energy sources.

Civil society worked closely with the Berkeley University of California to analyze the sector, while this analysis showed that Kosovo has a great potential of alternative sources and this potential is economically viable, serves the purpose of protecting health and environment in Kosovo, and creates 30% more jobs.

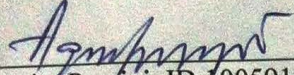
Failing to have such an analysis and failing to have a Partnership Strategy in Kosovo in effect, World Bank has embarked its engagement in this project in a way which contradicts its policies on such projects and fully contradicts the best work practices held and implemented by the Bank.

Requests

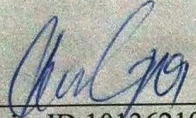
We request the Inspection Panel to closely analyse all abovementioned complaints identified and analyzed in details in Annex “Technical Annex to the Request for Inspection on the Proposed Kosovo Power Project”. This Annex should be considered a composite part of the complaint.

We request the Inspection Panel to immediately review the complaint and request the Board of the World Bank to immediately address all demands and concerns raised on the concerned projects.

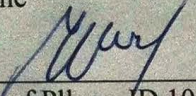
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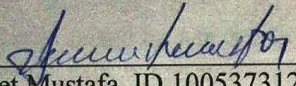
Agim Prelliqi, ID 1005912217
Parliamentary Representative for Hade
Address
Phone



Shaip Paloja, ID 1013621981
Community Representative for Palaj/C. Vodica
Address
Phone

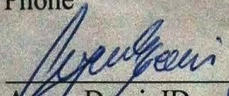


Eshref Pllana, ID 1014706018
Community Representative for Lajthishte/Sibofc
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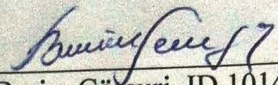


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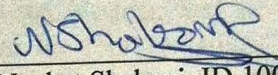
Head of the Kosovo Energy Trade Union
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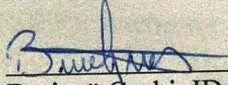
Agron Demi, ID 1003567148
Institute for Advanced Studies
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Phone



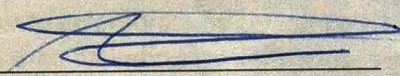
Burim Gërguri, ID 1014702144
Community Representative for Dardhishte
Address
Phone



Nexhat Shabani, ID 1005913019
Community Representative for Obiliq
Address
Phone

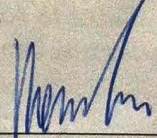


Besianë Gashi, ID 117246332
Community Representative for Obiliq
Address
Phone



Mexhide Spahija, passport nr 84082963

Forum for Civic Initiatives
Address
Phone



Krenar Gashi, ID 1000393573
Institute for Development Policy
Address
Phone

As specified in the letter of delegation, the Requesters authorize Mr. Nezir Sinani from the Institute for Development Policy (INDEP) to represent them in this process.

Nezir Sinani
Senior Researcher/Analyst, INDEP
Mobile: +386 49 609 906; +1 202 674 0024
Email: nezir.sinani@indep.info

LETTER OF DELEGATION

AUTHORIZATION

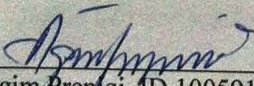
Obiliq, Prishtina March 22, 2012

We, the signatories of this document, designated community representatives of the villages of Hade, Dardhishte, Lajthishte/Sibofc, and Palaj/Crkvena Vodica, and of the town of Obiliq, located within the Municipality of Obiliq, as well as the representatives of the Civil Society Organizations, authorize Mr. Nezir Sinani from the Institute for Development Policy (INDEP) to represent us in the Inspection Panel complaint process. We understand that, in this matter, INDEP participates in a coalition including the following non-governmental organizations: Dokufest; Forum for Civic Initiatives (FIQ); GAP Institute; Prishtina Institute for Political Studies (PIPS); Institute for Development Policy (INDEP); Internews Kosova; Youth Initiative for Human Rights (YIHR); Balkan Investigative Reporting Network (BIRN); Saferworld and Group for Legal and Political Studies.

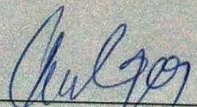
We have also been advised of Mr. Sinani's communications with the World Bank, raising concerns relating to the LPTAP and KPP. We would like to incorporate by reference all concerns raised by Mr. Sinani and colleagues in the coalition, including the following: impacts of pollution (air, water, and land) to the environment and human health; impacts on workers, in particular relating rights to collective bargaining and freedom and association, as well as safe working conditions; unsustainable water usage; social impacts on agriculture; social impacts on local employment; concerns about involuntary resettlement; lack of consideration of viable alternatives; inadequate consideration of social and environmental costs in project economics; and the general lack of information disclosure and consultation.

We authorize Mr. Sinani to be our representatives for this process in official communications with all levels of World Bank, regarding our concerns about the energy projects in Kosovo. This authorization is valid until further notice.

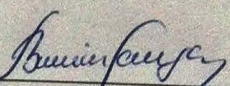
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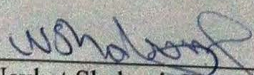
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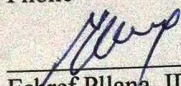


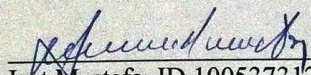
Burim Gerguri, ID 1014702144
Community Representative for Dardhishte
Address
Phone



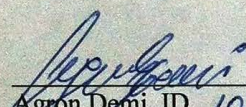
Nexhat Shabani, ID 1005913019
Community Representative for Obiliq
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Phone

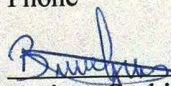

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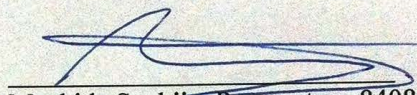

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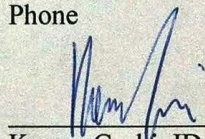

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Address
Phone


Krenar Gashi, ID 1000353973
Institute for Development Policy
Address
Phone

Contact Information for Mr. Sinani

Nezir Sinani
Senior Researcher/Analyst, INDEP
Mobile: +386 49 609 906; +1 202 674 0024
Email: nezir.sinani@indep.info

**TECHNICAL ANNEX TO
THE REQUEST FOR
INSPECTION ON THE
PROPOSED KOSOVO
POWER PROJECT**

March 29, 2012

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I. SUMMARY

The Requesters asked CIEL and BIC¹ to analyze their complaint against the Inspection Panel Procedures and World Bank policies and procedures. In their request, the Requesters ask the World Bank Inspection Panel to investigate World Bank (“Bank”) involvement in two projects in Kosovo’s energy sector: the Kosovo Power Project (KPP) and the Lignite Power Technical Assistance Project (LPTAP). Both of these projects, and in particular the new lignite power plant and the expanded lignite mine contemplated by the KPP, are likely to cause significant environmental and social impacts and incur associated costs in an area that is already heavily affected by lignite mining and power generation. At present, these impacts and costs have not been sufficiently addressed by the Bank, in violation of Bank policy, and many could be avoided through more environmentally sustainable alternative projects. As part of the LPTAP, the Bank completed a number of studies in preparation for the KPP, but these studies are inadequate and, at a minimum, without completing new studies the project would violate Bank policies. Furthermore, both projects suffer from a lack of transparency and insufficient community consultation, which should be remedied before a decision is taken. Requesters ask that the Inspection Panel review the projects’ consistency with Bank policies, including OP 4.01 on Environmental Assessment, OP 4.12 on Involuntary Resettlement, OP 10.04 on Economic Analysis, OMS 2.20 on Project Appraisal, and the Bank’s Strategic Framework for Development and Climate Change (SFDCC).

The Requesters are particularly concerned that:

- (a) the Strategic Environmental and Social Assessment (SESA), the Resettlement Policy Framework (RPF), and the Economic Analysis developed through the LPTAP and reviewed by the SFDCC Expert Panel are inadequate;
- (b) the KPP, particularly the new mine and plant, will significantly extend the life span of activities that cause substantial environmental degradation and related health harms, in an area that is already heavily contaminated, resulting in cumulative impacts;
- (c) the KPP is likely to create the need for significant resettlement in an area without sufficient arable lands, degrade households and cultural sites, and lead to loss of livelihoods without adequate compensation;
- (d) the KPP is likely to cause harm to workers and the local economy;
- (e) the Bank has failed to adequately consider sustainable and effective alternatives; and
- (f) the lack of transparency and consultation demonstrated so far will only continue as the KPP appraisal process continues.

II. PROCEDURAL REQUIREMENTS

The Requesters herein meet the procedural requirements to bring this request because they are a group of two or more individuals likely to suffer harms as a result of Bank-financed activities in Kosovo, and they have raised their concerns with Bank Management without receiving a satisfactory response.

¹ Critical assistance was provided by the Transnational Development Clinic and International Human Rights Law Clinic of Yale Law School, with additional comments and suggestions provided by the Sierra Club.

A. Identification of Requesters

The Inspection Panel has authority to receive requests from (a) a group of two or more people in the country where the Bank-financed project is located who believe that as a result of the Bank's violation their rights or interests have been, or are likely to be adversely affected in a direct and material way or (b) a duly appointed local representative acting on explicit instructions as the agent of adversely affected people.²

The Requesters all live in Kosovo, in the area affected by the project, where the KPP power plants and mine will be built.

B. Projects at Issue

Requesters raise concerns relating to the following projects: the Kosovo Power Project (No. P118287) and the Lignite Power Technical Assistance Project (No. P097635), as described below. The KPP is under consideration, with a projected Board approval date of November 17, 2012, and, as far as can be ascertained, the LPTAP is less than 95% disbursed.

The Requesters believe they have suffered or are likely to suffer the environmental, health and labor harms alleged herein as a result of the Bank's failure to adhere to its policies with respect to the KPP and the LPTAP. Moreover, Requesters are concerned about the Bank's failure to follow its requirements for disclosure and consultation resulting in a lack of transparency and consultation associated with the projects to date.

C. Efforts by Requesters to Raise Concerns with Bank Management

The Requesters have attempted to raise their concerns with the Bank Management on numerous occasions but have received few and unsatisfactory responses. Requesters have raised numerous issues, including concerns about plans for resettlement, environmental and health impacts, access to electricity, and reduction in local employment, however they did not receive satisfactory responses. Requesters also raised concerns about resettlement (as far back as the 2007 consultations) but to date are not aware of when and how resettlement will take place. Some Requesters also expressed a desire to be informed and consulted about the privatization process, but have received little to no information about this process from the Bank. In fact, the Bank has not had contact with representatives from the villages for over three years. These representatives sent a letter to Bank management on March 6, 2012 summarizing their concerns with the proposed project.³

In addition, Mr. Nezir Sinani (contact point for the Requesters) and other representatives from civil society organizations have raised several concerns with the Bank over the past two years. A brief summary of the written correspondence between Mr. Sinani and Bank officials is given below. Additional details may be found in Appendix 1.

² World Bank Inspection Panel Operating Procedure, *available at* <http://web.worldbank.org/WBSITE/EXTERNAL/EXTINSPECTIONPANEL/0,,contentMDK:20175161~pagePK:64129751~piPK:64128378~theSitePK:380794,00.html>.

³ *See id.*

On November 8, 2010, representatives of several Kosovo civil society organizations sent a letter to the Bank's President and Board Members criticizing the lack of transparency in the energy sector review process, and requesting comprehensive public disclosure of all available documents, including procedures used to evaluate Kosovo's compliance with environmental and other relevant policies.

On May 31, 2011, Mr. Sinani sent an e-mail to Scott Sinclair and other Bank officers inquiring about additional funding for the LPTAP, requesting the Expert Panel's Terms of Reference (ToR) and related documentation, and requesting a hydrological study on the Ibar Lake in northern Kosovo.

On June 6, 2011, Mr. Sinani sent an e-mail to several Bank officers requesting information about studies on alternative energy sources.

On August 25, 2011, Mr. Sinani sent an email to Bank staff raising concerns about the SFDDC Export Panel Terms of Reference.

On September 9, 2011, Mr. Sinani sent an e-mail to Jane Armitage, World Bank Country Director and Regional Coordinator for Southeast Europe, asking the Bank to publish online the studies related to the work of the Expert Panel and the ToR for the Least Cost Supply Option study. On September 12, 2011, Mr. Sinani sent an e-mail response to Mohinder Gulati, Country Sector Coordinator, Western Balkans, restating that the studies referred to in the Expert Panel ToR were unavailable. Mr. Gulati had erroneously asserted that these documents were available online; in actuality, only 7 of the 29 documents listed in the ToR were available. On September 15, 2011, Mr. Sinani sent an e-mail to Bank officers reiterating a request for the Bank to make available documents 2, 11, 12, 17, 21, 22, 24, 25, 28, and 29 of the Expert Panel's ToR. On September 29, 2011, Mr. Sinani sent an email to Jane Armitage following up on an in-person meeting, and inquiring about the Least Cost Supply study for the Expert Panel.

Mr. Sinani attests that he sent several Bank staff a copy of the publication "Energy Projects in Kosovo" outlining concerns and recommendations about the proposed energy project (attached) in October 2011.

On February 23, 2012, Mr. Sinani sent a letter to the Bank expressing concerns about air pollution monitoring for the proposed project.

On March 14, 2012, Jane Armitage met with several community members and civil society groups. Requesters raised several concerns during this meeting, but again did not receive satisfactory responses to their concerns.

After these attempts to discuss their concerns with Bank officials, Requesters are not satisfied with the Bank's response and bring this complaint before the Inspection Panel.

III. PROJECT DESCRIPTIONS

A. The Proposed Kosovo Power Plant (KPP) (No. P118287)

The Bank is proposing to assist the Government of Kosovo to address problems associated with the energy sector through the KPP. Kosovo's energy sector is plagued with a host of problems: regular electricity outages and blackouts, continuing reliance on polluting lignite power, and an inefficient transmission grid that results in enormous losses.⁴ The stated objective of the KPP, a Category A project, is "to reduce the environmental impact of electricity generation and strengthen security of supply in Kosovo in an economically efficient, environmentally sustainable, and a carbon-neutral manner."⁵

Kosovo's major lignite-based power plant ("Kosovo A") is due to be decommissioned in 2017 and is expected to cause a shortfall in power supply. As currently proposed, the KPP will have three components: (1) replacing the lost capacity of Kosovo A by rehabilitating the existing Kosovo B Power Plant ("Kosovo B"); (2) construction of a new lignite-based Kosovo C Power Plant ("Kosovo C"), also known as Kosova e Re, with an installed capacity of 600MW⁶ and associated infrastructure; and (3) the development of a new lignite coal mine in Sibofc to meet the fuel needs of the power plants ("Sibofc mine"). If approved, all three components of the KPP will be financed through private sector investment, with support of a partial risk guarantee (PRG) from the International Development Association of the Bank.

The new Kosovo C plant is expected to be developed in the Obiliq municipality, one of the most polluted municipalities in Kosovo,⁷ near the site of the existing Kosovo B, which is ten kilometers southwest from Prishtina, Kosovo's capital, and five kilometers from the Sibofc mine. The mine project will acquire approximately 13% of the territory of the Obiliq municipality, and the Bank notes that this area is "largely composed of fertile land."⁸ Within the municipality, a number of areas will be impacted by the proposed activities, including: the town of Obiliq; and the villages of Dardhishte, Hade, Cerna Vodica, Sibofc, Shipitulle, Leshkoshiq, Fushe Kosova, Vushtrria, and Drenas.⁹ The municipality is more densely populated than the rest of Kosovo: according to the latest Kosovo census from April 2011, 21,548 people live in Obiliq, with density of approximately 205 persons per km², which is above the Kosovo average of 175 per

⁴ See Kosovo Institute for Policy Research and Development (KIPRED), Forum for Civic Initiatives (FIQ), and Gap Institute, *Energy projects in Kosovo*, 8 (Sept. 2011), http://www.kipred.net/web/upload/Energy_Projects_in_Kosovo.pdf.

⁵ World Bank, *Project Information Document for the Kosovo Power Project* (July 27, 2011), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/08/04/000001843_20110808120850/Rend ered/PDF/1108030Kosovo00PID000concept0stage.pdf [hereinafter KPP PID].

⁶ Strategic Framework for Development and Climate Change Expert Panel, *Kosovo: Kosovo Power Project, Report of the SFDC Expert Panel to the World Bank* (Jan., 2012) [hereinafter SFDC Expert Panel Report].

⁷ Municipality of Obiliq, *Local Economic Development Plan 2007-2010* (Nov. 2007), available at <http://lgi.osi.hu/publications/2008/389/Obiliqi.pdf> [hereinafter Obiliq Municipality Development Plan].

⁸ Government of Kosovo, Ministry of Energy and Mining, *Strategic Environmental and Social Assessment: Executive Summary*, 31 (June, 2008), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/07/16/000333038_20080716005201/Rend ered/PDF/E13670VOL1020Box327408B.pdf [hereinafter SESA Ex. Sum].

⁹ This is not exhaustive, but Requesters are particularly concerned about these areas. Additionally, the SESA and Resettlement documents confirm that these areas will be impacted as discussed below.

km².¹⁰ The land surrounding the villages is mainly used for agriculture;¹¹ 48% of the municipality is composed of agricultural land (6800 hectares)¹² and the majority of the local population (approximately 60%) are farmers, many of whom are subsistence farmers.¹³

The estimated date of the KPP's approval by the Bank's Board is November 17, 2012.¹⁴ At present, the Expert Panel tasked with assessing the project's compliance with the SFDC has screened the project and recommended that it go forward.¹⁵ However, for reasons discussed in Section VI below, this assessment (including the underlying studies conducted under the LPTAP) is inadequate and incorrectly finds that the project is consistent with SFDC criteria.¹⁶ If the project proceeds as proposed, it will cause significant harm to the Requesters and the communities they are from.

B. The Lignite Power Technical Assistance Project (LPTAP) (No. P097635)

The proposed KPP is closely linked to the existing technical assistance project, the LPTAP, spanning from 2006 - 2011. The stated objectives of the LPTAP are: (1) to help the Kosovo government strengthen the enabling policy, legal, and regulatory frameworks conducive to new investments in the energy sector; and (2) to assist the Kosovo government in attracting qualified private investors.¹⁷ The project focused on three areas: an assessment of expanded lignite mining in the Sibofc Basin, to determine feasibility for providing sufficient raw material to fuel a 600MW thermal power plant for 25 years; feasibility and market analysis for the construction and interconnection of a new power plant; and technical assistance to the Government of Kosovo to develop policies and strategies to promote renewable energy and energy efficiency in Kosovo.¹⁸ It was also to provide capacity-building assistance to relevant government ministries; provide a mechanism for civil society input into the design of a new plant; and provide funding to the government to improve public consultations.¹⁹

Through the LPTAP, a Category B project, the Bank has supported certain preparatory activities related to the KPP, including completion of a Strategic Environmental and Social Assessment

¹⁰ Population and Housing Census in Kosovo, Preliminary Results (June, 2011), available at <http://esk.rks-gov.net/rekos2011/repository/docs/REKOS%20LEAFLET%20ALB%20FINAL.pdf>.

¹¹ SESA Ex. Sum., *supra* note 9, at 13.

¹² Obiliq Municipality Development Plan, *supra* note 7, at 17.

¹³ SESA Ex. Sum., *supra* note 9, at 31.

¹⁴ KPP PID, *supra* note 5.

¹⁵ SFDC External Expert Panel Report, *supra* note 6.

¹⁶ See Steve Herz, Sierra Club, *Issues of Non-Compliance with World Bank's Criteria for Screening Coal Projects Under the Strategic Framework for Development and Climate Change* (Mar. 6, 2012) (on file with author) [hereinafter *Issues of SFDC Non-Compliance*]; see also Bruce C. Buckheit & Sierra Club, *Affordable Electricity for Kosovo?: A Review of World Bank Group Cost Estimates For New Lignite-fired Plants in Kosovo* (Oct. 2011), available at http://action.sierraclub.org/site/DocServer/Review_of_TOR_Final.pdf?docID=8341 [hereinafter *Affordable Electricity*]; GAP, KIPRED & FIQ Press Release: *Significant errors in the Terms of Reference document for the World Bank's Expert Panel assigned to review new Kosovo lignite based power plan* (Sept., 2011), available at <http://institutigap.org/repository/docs/ToREnglish.pdf>.

¹⁷ World Bank, LPTAP Project Information Document (Mar. 22, 2006), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/03/27/000104615_20060327144114/Rend ered/PDF/finalaprp32206.pdf.

¹⁸ *Id.* at 5-6.

¹⁹ *Id.* at 6.

(SESA) in 2008²⁰ and a Resettlement Policy Framework (RPF) in 2011.²¹ The Bank also prepared an Economic Analysis, but it is unclear whether this was developed through the LPTAP. Nevertheless, this analysis was presented for consideration by the Expert Panel and, in this complaint, is assumed to have taken place in the context of the LPTAP.²² Additionally, during the Expert Panel's deliberations, the Bank released a more recent analysis of power supply options, updating aspects of an economic analysis, which for the purposes of this complaint, is considered together with the 2006 Economic Analysis.²³ These studies are inadequate and violate a number of World Bank policies, as detailed below in Section V. Moreover, given the nature of the proposed activities under the KPP, a Category A project, these preparatory studies should have followed the higher standards applicable to Category A projects, particularly on consultation and disclosure.

IV. SUMMARY OF HARMS

The Requesters will suffer numerous harms from the KPP due to violations of Bank policies and procedures, including but not limited to: adverse impacts to the environment and human health; inadequate compensation for resettlement; and infringements of labor rights and other human rights.

A. Environmental and Health Harms

Obiliq is one of the most polluted municipalities in Kosovo.²⁴ The main source of pollution is the existing coal-burning power stations (Kosovo A and Kosovo B), along with heating and drying processes associated with coal production. The burning of coal releases toxic substances and dust

²⁰ Republic of Kosovo Government, Ministry of Energy and Mining and Ministry of Environment and Spatial Planning, *Strategic Environmental and Social Assessment* (July 11, 2008), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/07/16/000333038_20080716012909/Rend ered/PDF/E13670VOL130Box327408B.pdf [hereinafter SESA].

²¹ Republic of Kosovo Government, Ministry of Environment and Spatial Planning, *Resettlement Policy Framework for Land Acquisition for the New Mining Field Zone*, (July 29, 2011), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/08/03/000333037_20110803021703/Rend ered/PDF/RP11800v20P0970F0ECA0RI0P0976350RPF.pdf [hereinafter RPF] (noting that the 2008 SESA also contains a version of the RPF in Annex D). The RPF draws from the Government of Kosovo's Spatial Plan. Kosovo Government Ministry of Environment and Spatial Planning, *Spatial Plan: Area of Special Interest 'New Mining Field'* (Mar. 2011), available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/08/03/000333037_20110803021315/Rend ered/PDF/RP11800v10P0970IP0976350SpatialPlan.pdf [hereinafter Spatial Plan].

²² World Bank, Kosovo Lignite Power Initiative, *Proposed Lignite Power Development Project: Economic Analysis* (2006), available at http://siteresources.worldbank.org/INTENERGY2/Resources/27_KosovoLignite_EconomicAnalysis.pdf [hereinafter Economic Analysis].

²³ World Bank, *Background Paper: Development and Evaluation of Power Supply Options in Kosovo* (Dec. 2011) available at http://siteresources.worldbank.org/INTENERGY2/Resources/Kosovo_generation_options_report_12312011.pdf [hereinafter Kosovo Power Supply Options]. While this analysis contains more information on project economics, it still does not adequately consider viable alternatives or provide complete information on externalities. See Bruce C. Buckheit & Sierra Club, *Reevaluating Kosovo's Least Cost Electricity Option*, (Jan. 2012), available at <http://www.youtube.com/watch?v=bnVUHWcynig&ob=av2e> [hereinafter Kosovo's Least Cost Option].

²⁴ Obiliq Municipality Development Plan, *supra* note 7, at 19.

into air and ground water, causing significant contamination of the surrounding environment. Despite deficiencies in pollution monitoring in the area, preliminary studies indicate that emissions levels and heavy metal contamination is concerning. In this context, replacing Kosovo A with a new power plant would significantly extend the time span during which this area would have to continue facing pollution from coal mining and combustion. Although both Kosovo B and the new plant will be more efficient than the existing plants, efficiency will also increase capacity, therefore it is unclear (absent strict pollution controls, which are as yet undecided) how much the project will result in diminished pollution overall. Due to the already fragile environmental conditions in this area, the cumulative impacts of the KPP are substantial.

The proposed project will contribute significantly to the pollution in the area. While effects of pollution can be far ranging, the Obiliq municipality and the dense urban capital of Prishtina will be the most heavily impacted by the proposed project. The Requesters will suffer health risks arising from the construction and operation of both the proposed lignite power plants and the lignite mine. These harms include specific disease burdens caused by pollutants and industrial waste, nuisances caused by noise or dust from the operation of the coal mine and coal-fired power plants, and the effects of pollution on vulnerable populations, like children. The Sibofc coal mine and the operation of the Kosovo B and Kosovo C power plants will release toxic pollutants into the atmosphere, including particulate matter, sulfur dioxide, mercury, lead, heavy metals, oxides of nitrogen, carbon dioxide, and acid gases. These air pollutants cause damage to the nervous and circulatory systems. They also exacerbate existing health conditions, like asthma, prevalent in the populations living in the project area due to years of exposure to air pollution. Prishtina Children are also at risk from exposure to lead and mercury, which impair cognitive development, and the acid gases like hydrogen chloride, which cause lung damage.

The Requesters will also suffer harms from water and land pollution. Pollution of the water will occur from industrial materials including coal ash containing heavy metals, fly ash laced with mercury, wastewater from the washing of lignite coal containing selenium, and overflow or failure of impoundments storing “coal sludge,” a toxic waste product.²⁵ Impoundments can fail, causing toxic floods of sludge that render rivers dead zones and contaminate ground water sources. The harm from this water pollution will be exacerbated because the riparian systems of the Kosovo Valley are already highly stressed.²⁶ The impact of water and land pollution on farmers, who comprise 60% of the population in the affected area, will be particularly profound: farmers rely on agricultural land and water for crop cultivation (including commercial and subsistence farming), thus their livelihoods will be significantly affected by pollution. Food contamination from such pollution is also likely. Moreover, coal waste not only creates surface water contamination, it also pollutes soil and ground water.

B. Labor Harms

The proposed activities, particularly the proposed privatization of mine and plant operations, could adversely affect labor rights. In light of past experience with privatization in Kosovo, it is

²⁵ A study by the University of Prishtina concludes that the disposal of ash is a major contributor to the high concentration of phenols in the Sitnica River. L. Berisha, T. Arbnesi, and M. Rugova, *The Level Concentration of Lead, Cadmium, Copper, Zinc and Phenols in the Water River of Sitnica*, University of Prishtina (2008).

²⁶ *Id.*

highly likely that this will harm the rights of Requesters to unionize, organize, and bargain collectively. Requesters are concerned that privatization will lead to job cuts, salary reductions, worsened working conditions, and create a situation in which legal procedures are neglected. The Bank has not sufficiently analyzed the dynamics of the labor market, job creation or unemployment. The Bank assumes that the mine and coal-fired power plants will create jobs, the wages of which will then spill over to the local economy.²⁷ However, the Requesters are concerned that the jobs that are created will be either temporary, in the case of construction, or will not employ the local workforce without extensive and costly education and job training. The Bank has provided no analysis or accounting of the training necessary to ensure that the economic growth created by the new jobs is local and permanent. Furthermore, the Requesters are concerned that if employees are laid off as a result of the project, there will be no programs to help compensate them.

C. Resettlement Harms

Coal mining and the operation of coal-fired power plants will require the resettlement of populations throughout the 150 km² area of the “New Mining Field” (NMF), assessed in the spatial plan for the KPP prepared under the LPTAP.²⁸ Impacts resulting from involuntary resettlement will cause widespread harm to Requesters. Many Requesters expressed concern during consultations about the adequacy of the resettlement plans, and in particular about proper compensation for destroyed homes and impacts on their work and livelihoods. Physical and economic displacement will also harm subsistence farming in the region, and diminish the livelihoods earned from forest timber products and other secondary income streams. Resettlement will require compensation for agricultural families in the form of productive agriculture lands. However, there is significant doubt that sufficient fertile land exists for this purpose. Resettlement will also harm the social and cultural fabric of communities such as Hade, Leshkoshiq, Shipitulle, and Sibofc. Resettlement could also mean the destruction of important mosques, schools and historic monuments in the region.²⁹

V. POLICY VIOLATIONS

The studies and plans conducted through the LPTAP, and reviewed by the Expert Panel, do not meet Bank requirements for Category A projects, the classification for the KPP. If the KPP proceeds as planned, the Bank’s failure to comply with its policies will result in significant harms to the Requesters.

A. OP 4.01 – Environmental Assessments

OP 4.01 “requires environmental assessments (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision

²⁷ SESA, *supra* note 20, at 337.

²⁸ Spatial Plan, *supra* note 21, at 19.

²⁹ See section V(B)(2), *infra*, on “Consideration of the Full Extent of Impacts” from Involuntary Resettlement. The destruction of these landmarks such as the Holy Tomb of Sultan Murat II near Obiliq, mean a reduction in cultural tourism.

making.”³⁰ While the Bank has not made clear whether the SESA conducted under the LPTAP will serve as the Environmental Assessment for the KPP, at this stage it can only be assumed that this SESA, reviewed by the Expert Panel, is the sole document intended to meet the requirements of OP 4.01. Hence, the SESA is analyzed against the standards of OP 4.01. Further, because the nature of the project assessed by the SESA is a Category A project, it should be assessed against OP 4.01 standards for Category A projects.³¹

There is a fundamental assumption in the SESA that construction of a new power plant (Kosovo C) and the shuttering of an outdated plant (Kosovo A) will be more efficient and hence better for the environment and the people of Kosovo.³² However, better efficiency would result in increased capacity, and without knowing pollution control measures, it is unclear to what extent overall pollution will diminish.³³ Nevertheless, even if efficiency does result in a marginal improvement, and prospective harms are distinguished from existing ones, the assumption is flawed because of the SESA’s failure to account for the full range of environmental impacts of the project. Replacing Kosovo A with Kosovo C will condemn an already heavily contaminated environment with significant health impacts to decades of the same harms that have led to its existing condition. Such prolonged exposure to those harms could cause long-lasting, and possibly irreversible, impacts to the area. It is therefore necessary that the Bank consider existing environmental conditions and assess the long-term cumulative effect of continuing lignite-based power generation.

The current SESA fails to meet the requirements of OP 4.01 in the following areas: inadequate consideration of environmental, health and social impacts; inadequate consideration of viable alternatives; and inadequate and unrepresentative consultations with affected communities. Thus, the Inspection Panel should find that the Bank must conduct a more comprehensive assessment that complies with the requirements of OP 4.01.

1. Consideration of Environmental, Health, and Social Impacts

The SESA did not adequately consider relevant environmental, health, and social impacts that would arise from the KPP. OP 4.01 requires evaluation of a “project’s potential environmental risks and impacts.”³⁴ It also provides in relevant part that the “EA take[] into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects.”³⁵ Further, the assessment must examine ways of improving the project by “preventing, minimizing, mitigation, or compensating for adverse environmental impacts.”³⁶

³⁰ World Bank Operational Policy 4.01, *Environmental Assessment*, 4.01(1) (revised Feb., 2011), available at <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,contentMDK:20064724~menuPK:64701633~pagePK:64709096~piPK:64709108~theSitePK:502184~isCURL:Y,00.html> [hereinafter OP 4.01].

³¹ *See id.*; see also OP 4.01 Annex B.

³² SESA, *supra* note 20, sec. 6 (discussing potential mitigation measures).

³³ *See* Kosovo’s Least Cost Option, *supra* note 23 (discussion of baseload and peak capacity).

³⁴ OP 4.01(2), *supra* note 30.

³⁵ *Id.* at OP 4.01(3) (emphasis added).

³⁶ *Id.* at OP 4.01(2).

The SESA notes in a number of instances that appropriate monitoring devices or data were not available to conduct certain assessments, thus conceding from the outset an inability to fully assess relevant impacts.³⁷ Failures to adequately consider relevant impacts in the SESA include: air pollution; water and land pollution; unsustainable water usage; transboundary impacts; impacts to the workforce; agricultural impacts; and cumulative impacts.

a. Air Pollution

Operation of the lignite mine and power plants will result in the emission of toxic gases and particulates that have adverse effects on health. The current state of the environment is already very poor; the air is difficult to breathe, and dust from emitted substances lines the ground throughout surrounding villages. The toxicological effects arising from exposure to emitted substances including fine particulates, carbon dioxide (CO₂), sulfur dioxide (SO₂), oxides of nitrogen (NO_x), acid gases, dioxins, mercury and other heavy metals, are significant and are discussed below. The Requesters are concerned about continued exposure to these pollutants because they already face significant health impacts from existing operations.

In general, there is insufficient information on expected pollution controls and resulting emissions estimates, as well as data on air quality for the SESA to adequately assess the impacts of air pollution.³⁸ With respect to emission levels, OP 4.01(6) presumes that in the absence of a “full and detailed justification for the levels and approaches chosen for the particular project or site[.]” the recommended limits in the Bank’s Environment, Health and Safety Guidelines (“EHS Guidelines”) apply to Bank projects.³⁹ For “[p]rojects with significant sources of air emissions,” the Bank’s EHS Guidelines recommend emissions levels of particulates, NO₂, and SO₂ lower than 150, 200, and 125 µg/m³,⁴⁰ respectively. The SESA does not identify what specific emission controls would be implemented at the refurbished Kovoso B and Kosovo C, and thus does not adequately assess what emission levels are expected.⁴¹ Without this information it is impossible to assess whether the project would comply with EHS guidelines or OP 4.01 more generally. Furthermore, while the concentration of the acid gases may be effectively reduced through systematic use of scrubbers,⁴² the Bank’s SESA has not provided a detailed plan to show how Kosovo, with its limited resources and chronic history of underinvestment in maintenance of infrastructure, is equipped to control emissions of acid gases over the long term. Indeed, the Requesters have already expressed concerns that existing filters in Kosovo B are switched off at convenient moments to reduce costs, and that operating more

³⁷ See e.g., SESA, *supra* note 20, at 77, 150 (noting unavailability of air quality data and water flow rates from plants, respectively).

³⁸ See *id.* at 77.

³⁹ OP 4.01(6); see World Bank Group, *Environmental Health and Safety Guidelines*, available at <http://www1.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES> (last visited Feb. 28, 2012). [EHS GUIDELINES]

⁴⁰ *Id.* The current emissions from the Kosovo plants are even higher than the higher limits that the Bank recommends over short periods. For particulates that are smaller than 10 micrometers, the 150 µg/m³ value refers to the daily recommended limit over a 24-hour period; the annual exceedance limit is less than 70 µg/m³. The EHS Guidelines recommends daily limits of 75 µg/m³ for particulates smaller than 2.5 micrometers. For NO₂, the EHS Guidelines recommend daily and annual limits of 200 and 40 µg/m³, respectively. For SO₂, the EHS Guidelines recommend 10-minute and 24-hour limits of 500 and 20-125 µg/m³, respectively.

⁴¹ See SESA, *supra* note 20, at sec 6 (mitigation measures, in most instances noting the need for feasibility studies).

⁴² *Id.* at 39.

advanced scrubbers will result in water shortages in the area. The Bank must demonstrate how pollution controls would be managed to alleviate these concerns. The Bank must also assess whether ambient air quality will be within accepted limits, current monitoring data on air quality is inadequate and needs to be updated.

Noting that the impact of air pollution cannot be fully assessed without knowing the pollution controls and emission levels, a few examples of gaps in data and impacts of air pollution are highlighted below. At the outset, the SESA acknowledges that air quality data is unavailable and that monitoring systems need significant capacity development.⁴³ In assessing the impact of fine particulates, the SESA notes that the main component of emissions is generated by the mines,⁴⁴ but that data on air emissions inside the mines is not available⁴⁵ and thus cannot be assessed. Additionally, the SESA does not detail mechanisms that will ensure that monitoring devices to measure emissions levels function as designed over the life of the project. Inefficient removal processes and inadequate monitoring device create uncertainty as to the amount of particulates being emitted and therefore are cause for concern. The World Health Organization⁴⁶ has reported a link between fine particulates and respiratory illnesses such as asthma, reduced lung function, and higher incidence of bronchial infections in children.⁴⁷ Due to their small sizes, fine particulates easily enter the bloodstream from the lung, and may result in inflammation of the heart and cardiac system.⁴⁸ These particulates are also believed to exacerbate the development of lung cancer. Pneumoconiosis or black lung disease is also a serious problem, particularly for mine workers. Without reliable information on the emissions and the related health impacts, it is not possible to adequately consider these impacts.

With respect to sulfur dioxide the SESA fails to adequately detail how sulfur-containing compounds will be effectively removed from the power plants' gas flues. The SESA recommends that a feasibility study be completed for updating of Kosovo B's electrostatic precipitators,⁴⁹ which means that further analysis is required to evaluate what abatement measures can be implemented, including any additional impacts. Additionally, as noted above, the SESA fails to adequately detail what, if any, mitigation technologies will be used at Kosovo C.⁵⁰ The SESA assumes that Kosovo C will have mitigation technology installed; yet, the SESA also states that "SO₂ could increase from present 13.8 Mt/y to 19.1 Mt/y,"⁵¹ possibly due to a capacity increase. Thus, it is unclear what SO₂ emission levels are likely to be. Health impacts of SO₂ pollution, which include coughing, wheezing, inflammation of breathing passages, and in some cases, can destabilize heart rhythms,⁵² are also inadequately discussed in the SESA. The Bank's SESA also fails to adequately consider how nitrogen-containing compounds will be

⁴³ *Id.* at 77.

⁴⁴ *Id.* at 100.

⁴⁵ *Id.*

⁴⁶ World Health Organization, *Air Quality and Health*,

<http://www.who.int/mediacentre/factsheets/fs313/en/index.html> (last visited Oct. 26, 2011).

⁴⁷ PHYSICIANS FOR SOCIAL RESPONSIBILITY, COAL'S ASSAULT ON HUMAN HEALTH (Nov. 2009), available at <http://www.psr.org/coalreport> citing W.J. Gauderman et al., *The Effect of Air Pollution on Lung Development from 10 to 18 Years of Age*, 351 NEW ENGL. J. MED. 1057 (2004). [2009 PSR Report]

⁴⁸ *Id.* tbl.2.2 at 9.

⁴⁹ SESA, *supra* note 20, at 333.

⁵⁰ *Id.* at sec. 6 (discussing mitigation measures).

⁵¹ *Id.* at 295.

⁵² 2009 PSR Report, *supra* note x, at 47.

removed from the new and existing power plants' gas flues. Inhalation of NO_x results in decreased lung function and respiratory diseases in children.⁵³ Children, the elderly and asthmatic patients are most at risk of harm.⁵⁴ There is also insufficient consideration of the health impacts of other pollutants, such as mercury, dioxins, polycyclic aromatic hydrocarbons ("PAHs"), and acid gases.⁵⁵

b. Water and Land Pollution

The Bank's SESA overlooked the impact of heavy metal contaminants (principally mercury and lead) on surface and groundwater sources. For example, mercury emissions can contaminate surface water, and effluent containing mercury can contaminate soil and ground water. This can result in damage to the environment including elevated levels of heavy metals and PAHs in soil and ground water.⁵⁶ The contaminated water may become non-potable and unsafe for recreational purposes. Requesters state that surface mining has already contaminated wells in the surrounding area causing health problems for local communities, for example in the village of Cerna Vodica. In addition, preliminary results from the geochemical studies in the SESA showed that concentrations of mercury and nickel in soil already exceed threshold safety levels.⁵⁷ An adequate assessment of heavy metal pollution from emissions and effluent and measures that would minimize or mitigate impacts is therefore necessary to comply with Bank policy. However, the Bank did not adequately assess the health and environmental impacts of heavy metals such as mercury. For instance, there is a correlation between environmental pollution and bioaccumulation of heavy metals in some produce.⁵⁸ Ingestion, of mercury-contaminated produce can cause damage to the brain,⁵⁹ nervous system, kidneys, and skin. Mercury has also been linked to reproductive problems and birth defects.⁶⁰ Lead is another heavy metal, released during the combustion of coal, that contaminates water. Exposure to lead has adverse health effects including damage to the developing nervous system, memory, and kidneys.⁶¹

More generally, the Bank did not adequately consider adverse impacts from the disposal of coal ash and other waste primarily due to insufficient data.⁶² It does, however highlight some significant problems with respect to storage of coal ash, noting that some dump sites are not rehabilitated and there is monitoring.⁶³ Coal ash poses significant health hazards: ash contains

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ See SESA, *supra* note 20.

⁵⁶ *Id.*

⁵⁷ SESA, *supra* note 20, at 128.

⁵⁸ See J. Falandysz and L. Bielawski, *Mercury Content of Wild Edible Mushrooms Collected near the Town of Augustow*, 10 Polish Journal of Environmental Studies 67, 68 (2001) (noting higher concentration of contaminants in produce grown in areas that were closer to a smelting plant in Slovakia).

⁵⁹ *Id.* at 25.

⁶⁰ 2009 PSR Report *supra* note 47, citing NATIONAL RESEARCH COUNCIL, COMMITTEE ON THE TOXICOLOGICAL EFFECT OF MERCURY, TOXICOLOGICAL EFFECT OF METHYLMERCURY (Washington D.C.: National Academy Press 2000).

⁶¹ American Lung Association, Emissions of Hazardous Air Pollutants from Coal-Fired Power Plants, 19 (Mar. 7, 2011), available at <http://www.lungusa.org/assets/documents/healthy-air/coal-fired-plant-hazards.pdf> [hereinafter 2011 ALA Study].

⁶² SESA, *supra* note 20, at 177.

⁶³ *Id.* at 177-178.

arsenic, lead, cadmium and mercury, and depending on how it is stored may leach into the soil and contaminate groundwater sources. Noting that Kosovo's waste inventory is incomplete, at the time of the SESA, ash made up the largest component of the inventory;⁶⁴ and the ash landfills for Kosovo A and B have exceeded their originally intended volume capacities. New mining and power plant operations will compound this problem. Studies to date have not adequately considered these disposal issues.⁶⁵ Thus, the Bank needs to provide measures that will adequately address ash disposal as well as other waste.

The Bank's SESA has not adequately addressed reclamation of mining lands following cessation of mining operations. Mitigation of long-term harms could be achieved by reclamation of abandoned mine lands in the future. However, the Bank's SESA has neither provided plans for future reclamation of land at mining sites following cessation of mining activities nor allocated adequate funds to complete restoration of mining sites.

c. Unsustainable Water Usage

The Bank failed to fully evaluate the sustainability of water usage, in violation of OP 4.01(1) and (2). According to the SESA, water flow rates at the existing power plants are not measured,⁶⁶ calling into question the accuracy of the water consumption rates that were used in the SESA. Additionally, due to the lack of clarity on air pollution controls, it is unclear to what extent current water estimates include increased water consumption as a result of measures like sulfur scrubbing and carbon capture and storage (CCS).⁶⁷ Given competing water demands for irrigation and other uses, this oversight prevents development of meaningful strategies to mitigate the risk of water shortage. The proposed project therefore requires a more accurate water supply analysis and a sustainable water management plan to ensure reliable water supply to all relevant sectors. Furthermore, the Bank must investigate how the project will affect any vested water rights in the area as part of their due diligence.⁶⁸

Kosovo A and B are supplied by the Llapi River and the Iber-Lepenc Canal, respectively;⁶⁹ during summer months when the river flow rate is low, water is taken from the Iber-Lepenc canal.⁷⁰ The new Kosovo C power plant is expected to get its water supply from the Iber-Lepenc water system.⁷¹ Even if the Bank's projections of water usage are accurate, the heavy water usage at Kosovo C raises questions about the long-term sustainability of the KPP. In fact, communities in the villages of Dardhishte and Cerna Vodica are particularly concerned that a new plant will result in water shortages in the area, and lead to a trade-off between operating the plant and domestic water consumption. According to the SESA, consumption of water at Kosovo C could account for almost 25% of the total demand across the country depending on the

⁶⁴ *Id.* at 177.

⁶⁵ *See id.* at 176-180.

⁶⁶ *Id.* at 150.

⁶⁷ *See generally, id.* at sec. 6, 141.

⁶⁸ Even though most of the municipality is an area of special economic interest, the Bank must assess whether this process is consistent with rights protected under Kosovo's constitution. *See infra*, sec. V.D.

⁶⁹ SESA, *supra* note 20, at 142.

⁷⁰ *Id.*

⁷¹ *Id.* at 152.

land acreage under irrigation.⁷² This projection is based on assumptions that might not hold – no significant changes in weather and rainfall patterns,⁷³ loss of water in the waterways can be capped at less than 25%,⁷⁴ and reducing water consumption by almost 42% in the Prishtina and Mitrovica municipalities by 2016.⁷⁵ As the SESA itself notes, reducing consumption in the Prishtina and Mitrovica municipalities “is realistic only if significant investments in the internal potable water distribution network are made.”⁷⁶ Despite identifying that significant investments in the water management infrastructure will be required, the SESA does not detail how this task will be accomplished.

In addition, unresolved water usage issues, and attendant effects on irrigation, could have adverse effects on attempts to achieve reconciliation among the various ethnic groups within Kosovo. Limited water resources could impose a heavy burden on Kosovo’s agricultural industry and could lead to competition between the farmers in rural areas and industrial users in urban areas.⁷⁷ SESA has acknowledged the possibility of “competing water demands . . . emerg[ing] in the medium-term (5-10 years) and . . . longer term.”⁷⁸ The history of civil strife within Kosovo and the region at large underscores the need to monitor catalysts with the potential to rekindle remnant tensions.

d. Transboundary Impacts

The Bank did not adequately consider transboundary effects of the KPP in violation of OP 4.01(3), which requires consideration of “transboundary and global environmental aspects.”⁷⁹ Air pollution can have significant transboundary impacts on the environment and human health. While CO₂ does not directly affect human health, the costs of increased emissions and global warming disproportionately affect members of the developing world within the Balkans and beyond. Transboundary impacts from SO₂ and acid rain were not adequately considered in the Bank’s SESA. Acid rain has devastating impacts on the environment including damage to lakes, streams, and forests.⁸⁰ In addition, the transboundary impacts from exposure to toxins were inadequately accounted for in the Bank’s SESA.⁸¹ Hydrogen Fluoride particulates can travel distances as far as 500 km.⁸² Given that major metropolitan capitals of the Balkans are less than 500 km from Prishtina, the potential scope of injury is significant with individuals in Albania and Macedonia most at risk of injury due to winds blowing in from the north-east.⁸³

⁷² *Id.* tbl.5.1.2.4.a at 301 and tbl.5.1.2.4b at 301.

⁷³ *Id.* at 303. As the SESA acknowledges, there have been instances in the past where rainfall amounts have been lower than expected. It is also possible that global warming could disrupt weather patterns.

⁷⁴ *Id.* at 302.

⁷⁵ *Id.* at 303.

⁷⁶ *Id.*

⁷⁷ In 2005, farmers reported that about 30% of agricultural land was irrigated. European Commission, *Kosovo report*, 11 (Dec. 2006), available at http://ec.europa.eu/agriculture/analysis/external/applicant/kosovo_en.pdf [hereinafter 2006 Kosovo Report].

⁷⁸ SESA, *supra* note 20, at 303.

⁷⁹ OP 4.01(3), *supra* note 30.

⁸⁰ U.S. EPA, <http://epa.gov/cidrain/>.

⁸¹ See generally SESA, *supra* note 20.

⁸² 2011 ALA Study, *supra* note x, at 61.

⁸³ SESA, *supra* note 20, at 114. See also Economic Analysis, *supra* note 22, at 22, 23, 25 (observing that health impacts will be felt well beyond the Republic of Kosovo).

The Bank has also failed to ensure or to effect notification of riparian states of potential changes in allocated water quotas, in violation of OP 7.50(4). OP 7.50(4) requires that “[t]he Bank ensure[] that the international aspects of a project on an international waterway are dealt with at the earliest possible opportunity. If such a project is proposed, the Bank requires the beneficiary state, if it has not already done so, to formally notify other riparians of the proposed project and its details. If the prospective borrower indicates to the Bank that it does not wish to give notification, normally the Bank itself does so. If the borrower also objects to the Bank's doing so, the Bank discontinues processing of the project. The executive directors concerned are informed of these developments and any further steps taken.”⁸⁴ OP 7.50(8) also requires that if no consent is obtained, the Bank staff have to assure the board that the project will not adversely impact the other riparian states. It is unclear whether Kosovo has notified riparian states regarding either foreseeable changes in its allocated quota of water or discharges of industrial effluents into the river without treatment. The KPP could place large burdens on Kosovo's allocated quota of water. For example, while the concentration of SO₂ and other acid gases may be effectively reduced through systematic use of scrubbers,⁸⁵ use of scrubbers could have implications for enhanced water usage at the power plant.

e. Impacts on Workforce

The Bank has also not adequately considered potential impacts of the local work force.

Local Unemployment: The Bank's assumption that the Sibofc mine and the coal plants will employ a meaningful number of local workers is questionable.⁸⁶ According to the Bank, “the number of people employed in mining activities will decrease (due to modernization of technology), will be more than compensated by the increase of people employed at the plants.”⁸⁷ However, the updated plants will operate with technology that could well eliminate many jobs. Further, Requesters are concerned that employees who are laid off from mining activities and decommissioning Kosovo A will not be re-hired or provided programs for financial support. Additionally, the Government decision to give the management of the existing Kosovo B power plant to the same company that would win the contract for the construction of the new power plant would simply transfer the current monopoly from the public (state-owned enterprise, KEK) to the private sector. This is against the interests of current local employees because they are concerned that privatization will lead to significant salary reductions and job cuts, and infractions of existing laws. Furthermore, due to a lack of adequate provisions in the plan for training, Requesters also fear that skilled labor may be brought in from outside the local region.⁸⁸ Without programs to either retrain and/or help provide financial support to workers who are laid off, local communities will suffer significant harms, and the SESA should have taken these considerations into account.

⁸⁴ World Bank Operational Policy, *International Waterways*, OP 7.50(4).

⁸⁵ 2011 ALA Study, *supra* note 61, at 39.

⁸⁶ SESA, *supra* note 20, at 337

⁸⁷ *Id.* at 292.

⁸⁸ GOVERNMENT OF KOSOVO, SMALL, MEDIUM ENTERPRISE DEVELOPMENT STRATEGY FOR KOSOVA 2012-2016, 10 (2011) (“Kosovo has a young, growing labour force that needs to be educated and trained to meet the needs of the country's market economy [m]ore than 50% of the population of Kosovo is under 25 years old, and 70% under 35.”)

Work Safety: Work safety is another significant concern for the local work force. In the last decade, more than 30 work-related fatalities and injuries have been recorded in the whole complex.⁸⁹ In some cases, the injuries resulted in significant physical impairment. The use of outdated technology is a contributing factor to these fatalities and injuries. Additionally, during working hours, employees are exposed to emissions of gases, dust, smoke, loud noises, and other health and safety threats. Even though current management has done little to resolve these problems, Requesters are concerned that without strict state regulation, the conditions will only worsen under a private monopoly. This is in light of past instances where, when daily operations were handled by a private company, working conditions worsened. The Bank should have considered the impacts of privatization in this respect in the SESA.

Beyond the occupational dangers of coal mining, the proposed privatization of mine and plant operations could interfere with the right to associate and organize among the coal and power plant workers, as discussed below in section V.D. This is due in large part to past experiences with privatization in Kosovo.

f. Impacts on Agriculture

The Bank has not fully considered the KPP's impact on agriculture within Kosovo, in violation of OP 4.01(3). Heavy metal contamination of produce could reduce demand for Kosovo's produce. In 2006, the agriculture sector accounted for the largest share of employment in Kosovo and contributed to 25% of the Gross Domestic Product.⁹⁰ In rural areas, where approximately 60% of the population lives, agriculture provides the main source of income.⁹¹ As of 2005, export of agricultural produce accounted for 16% of the country's export earnings.⁹² Decreases in GDP from reduced agricultural exports could reverberate through the economy and threaten delivery of services to vulnerable members of society. Additionally, the expansion of the mine will displace sizable portions of land currently under cultivation for which there is no adequate replacement; much of it used for subsistence farming.⁹³

g. Cumulative Impacts

As noted above, consideration of cumulative impacts is particularly important in the context of these projects. OP 4.01(1) provides that the environmental assessment "helps to ensure that [the project is] . . . environmentally sound and sustainable."⁹⁴ OP 4.01(3) requires that the "EA consider[] natural and social impacts in an integrated way."⁹⁵ These requirements support the consideration of cumulative effects. The project environment is already under significant stress; air pollution, soil and water contamination, and associated health impacts, when taken together, have considerable cumulative impacts for communities living in the area. Simply continuing the same pattern of pollution will only exacerbate the harms to human health and the environment suffered earlier. Even though an older plant would be replaced by a new one under the KPP, the

⁸⁹ See Appendix 2.

⁹⁰ 2006 Kosovo Report, *supra* note x, at 77.

⁹¹ *Id.* Nationwide, the agricultural labor force accounts for about 49% of the total labor force. *Id.*

⁹² *Id.* at 10.

⁹³ See generally, Spatial Plan, *supra* note 21.

⁹⁴ OP 4.01(1), *supra* note 30.

⁹⁵ *Id.* at 4.01(3).

continued contamination of an environment that has suffered significant harms from existing mines and power plants over the past decades could cause irreversible impacts to the environment and human health.⁹⁶ And, the KPP would lock the region into decades of the same or worse harms. Furthermore, given the difficulty and length of time involved in cleanup, the burden on affected communities will persist for a very lengthy period into the future, well beyond the lifetime of the power plants.

In short, the KPP will commit the region to a pattern of development that could push the local environment past the tipping point. The SESA has failed to account for this possibility.

2. Consideration of Project Alternatives

OP 4.01(2) requires examination of project alternatives. It also states that the Bank “favors preventive measures over mitigatory or compensatory measures, whenever feasible.” In this instance, the Bank has not adequately considered alternatives that would eliminate the numerous social and environmental harms associated with coal mining and combustion identified above. Particularly given the cumulative impacts involved, project scenarios that *prevent* environmental and social harms are preferred. Recent analyses by the Renewable and Appropriate Energy Laboratory at the University of California Berkeley, and the Kosovar Institute for Development Policy and Sierra Club support the conclusion that a combination of energy efficiency measures and renewable energy sources are meaningful alternatives to the current proposal for Kosovo’s energy sector.⁹⁷

The SESA reflects the Bank’s failure to meaningfully consider viable alternatives in two important respects. First, the Bank did not adequately consider alternative energy efficiency projects that would reduce base load demand and mitigate risks from operation of the power plants.⁹⁸ The marginal abatement benefits from such projects are high, they are generally cheaper to implement, and they create more jobs.⁹⁹ For example, providing insulation to buildings could significantly reduce existing inefficiencies, and result in many jobs. Furthermore, elimination of transmission losses would reduce base load demand and significantly curtail production of CO₂ and other toxic substances. Transmission losses accounted for almost 50% of the electricity generated between 2000 and 2006;¹⁰⁰ the magnitude of these losses exceeded the electricity that was generated from Kosovo A.¹⁰¹ With upgrades to the transmission grid, Kosovo A could be decommissioned without compromising the production of electricity relative to the status quo. It appears that the Bank is counting on privatization of

⁹⁶ The assumption is based on the Development Plan for the Sibofc mine, which is expected to function for 4-5 decades, at least. SESA, *supra* note 20, at Annex B.

⁹⁷ See Daniel M. Kammen, M. Mozafari and D. Prull, *Sustainable Energy Options for Kosovo An Analysis of Resource Availability and Cost* (Jan. 15, 2012), available at, <http://rael.berkeley.edu/energyforkosovo> [hereinafter Kosovo Alternatives Study]; Kosovo’s Least Cost Option, *supra* note 23; Affordable Electricity, *supra* note 16.

⁹⁸ See Kosovo’s Least Cost Option, *supra* note 16.

⁹⁹ See, e.g., Per-Anders Enkvist et al., *A Cost Curve for Greenhouse Gas Reduction*, McKinsey Quarterly (Feb. 2007).

¹⁰⁰ SESA, *supra* note 20, tbl.4.1.1.1b at 235.

¹⁰¹ *Id.* at tbl.4.1.1.1a & tbl.4.1.1.1b. In 2006, about 900 GWh was generated from Kosovo A; transmission losses accounted for about 2190 GWh.

the grid to remedy these losses.¹⁰² Instead, the Requesters urge the Bank to consider the sector as a whole and stem these losses before deciding to invest in building new generating capacity.

Second, the Bank did not adequately consider the potential of renewable energy sources. While the Bank's Project Information Document references hydropower generation,¹⁰³ the SESA made no significant mention of this resource. In fact, development of hydropower resources could add up to 365 MW without attendant pollution problems¹⁰⁴ because the energy from a 365-MW hydroelectric plant over 24 hours in a year equals about 3200 GWh. Additionally, despite "initial indications of some limited potential," "the full wind potential has not been studied."¹⁰⁵ The potential for solar energy, particularly small-scale systems, is also not fully examined.¹⁰⁶

The CO₂ reduction strategy in the Bank's SESA is also at odds with OP 4.01(2). The SESA notes that CCS is an option for reducing CO₂ emissions.¹⁰⁷ However, it also acknowledges that CCS technology is a "relatively untried concept" over the long term.¹⁰⁸ In addition, "the fuel needs of a coal-fired plant with [C]CS [would increase] by about 25%," thereby increasing electricity prices and environmental impacts of the plant.¹⁰⁹ Investment in energy efficiency projects and renewable energy sources would eliminate or reduce the need for CCS and other mitigatory projects.

3. Inadequate Disclosure and Consultation

The Bank did not adequately follow the requirements for public consultation and failed to ensure that access to information in affected communities occurred in a meaningful manner, in violation of OP 4.01(15). OP 4.01(15) addresses disclosure requirements and states that "[f]or meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted."¹¹⁰

Requesters state that local consultations were limited, that the harms associated with the project were not meaningfully discussed, that their concerns were rarely addressed in a satisfactory manner, and that the local union was not included in the consultations despite the concerns around local employment. Furthermore, for the last three years, there has been no Bank contact with the local communities about the proposed project. Some of the specific concerns raised during consultations include: uncertainty about the resettlement process and which villages will be resettled; what measures would be taken to improve environmental conditions and access to

¹⁰² This is through a related IFC Advisory Services Project. *See* <http://www.ifc.org/ifcext/spiwebsite1.nsf/0/852568b10055270d852576b0007a3338?opendocument&Highlight=0,ko> sovo.

¹⁰³ KPP PID, *supra* note 5, at 2.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*; *see also* SESA, *supra* note 20.

¹⁰⁶ *See generally*, SESA, *supra* note 20.

¹⁰⁷ *Id.* at 294.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ OP 4.01(15), *supra* note 30; *see also* World Bank Information Disclosure Policy.

water for domestic uses; electricity prices, particularly given the expected privatization; and the impact on local employment. In one instance, the Requesters expressed their desire to be informed and consulted in the tendering process for the privatization, however, to date, neither the Kosovo Government nor the Bank have provided them with any information in this regard.

Additionally, even though consultations and meetings were arranged with affected villages in Kosovo, the consultations were insufficient and non-representative, for the following reasons: (a) while approximately 20% of the individuals in ten villages within the Obiliq municipality participated in surveys to determine residents' concerns regarding the KPP, in four villages the participation rates were significantly lower than in the other six: less than 100 people participated in the surveys in each of these four villages;¹¹¹ (b) the studies do not indicate the extent to which participation across gender and ethnic lines was achieved; (c) at subsequent consultation meetings to disclose survey findings to villages within the Obiliq municipality, the average attendance was seventy;¹¹² and (d) the proximity of the Obiliq municipality to Prishtina suggests that the 500,000 residents within the greater metropolitan area should have been informed and consulted. These shortcomings underscore the inadequacy of the consultation process.

B. OP 4.12 – Involuntary Resettlement

The Bank's Resettlement Policy Framework (RPF) and associated documents, developed under the LPTAP and "intended to apply to all aspects of the Lignite Power Project,"¹¹³ does not fulfill the requirements laid out by OP 4.12 to avoid, minimize, and fully compensate for involuntary resettlement that the KPP will cause.¹¹⁴ Thus, the KPP will likely violate numerous provisions of OP 4.12 necessary to mitigate the "long-term hardship, impoverishment, and environmental damage that involuntary resettlement causes."¹¹⁵

Although final Resettlement Action Plans ("RAPs") are yet to be developed, the RPF and associated documents, which establish the parameters for the RAPs, can be assessed against OP 4.12 to determine whether the framework adequately incorporates relevant considerations and whether it was developed with adequate consultation. In this regard, the following aspects are particularly relevant: consideration of project alternatives; consideration of the full extent of impacts; compensation for lost agricultural land, and community consultation.

1. Consideration of Project Alternatives

OP 4.12(2) states that "[i]nvoluntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs."¹¹⁶ This means that when a proposed project is likely to lead to involuntary resettlement, the Bank must explore all viable alternative projects. As noted above, the Bank has not considered viable alternative projects, particularly

¹¹¹ SESA, *supra* note 20, tbl.3.4.4a at 201.

¹¹² *Id.* at 194.

¹¹³ RPF, *supra* note 21, at 4.

¹¹⁴ In addition to the RPF, the Spatial Plan is relevant in this context.

¹¹⁵ World Bank Operational Policy 4.12, *Involuntary Resettlement*, OP 4.12(2).

¹¹⁶ *Id.*

those that could be carried out with minimal or no resettlement, in contrast to the substantial displacement anticipated by the KPP. Such minimally disruptive alternatives include project scenarios that address transmission losses and increase energy efficiency projects, as well as promote renewable energy projects.¹¹⁷

2. Consideration of the Full Extent of Impacts

The KPP will lead to widespread displacement, both in terms of outright confiscation of land and in terms of environmental and health impacts that will render areas within the Obiliq municipality unlivable. It will also result in loss of agricultural lands and livelihoods, and degradation of sites of cultural, historic, and religious importance. These impacts fall within the “direct economic and social costs” that OP 4.12 requires resettlement programs to cover and will likely exceed those accounted for under the RPF. Additionally, when physical resettlement is envisioned, the Bank must ensure that displaced persons are “provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors *is at least equivalent to the advantages of the old site.*”¹¹⁸ As discussed below, this is unlikely to happen, based on current proposals.

While the SESA and the Government Spatial Plan examine a number of impacts associated with resettlement, some issues are not fully analyzed, including: land tenure issues; the extent of displacement; and lost livelihoods as a result of lost agricultural land. Requesters note that because most villages have been designated areas of special economic interest by the Government, they can be relocated at any moment and the municipality cannot function effectively with this uncertainty. The Government has already resettled some residents, and others do not know if or when they will be resettled. Thus, there is great urgency to clarify plans for resettlement and compensation schemes, including for those who have already been displaced.

Bank documents make clear that impacts will extend throughout the New Mining Field (150 km² area), as well as areas affected by plant operations.¹¹⁹ As part of its due diligence, the Bank should ensure that issues relating to property claims are resolved prior to resettlement. There are two main ways in which property rights issues may arise in this instance: the confiscation of the land itself; and the ownership of land in areas where people will be resettled. Requesters state that in 2004, the Government of Kosovo declared the villages of Hade, Sibofc, Leshkoshiq and Cerna Vodica as areas of special economic interest, which effectively allows the Government to initiate relocation of residents as needed. In March 2009, three additional Obiliq villages of Fushe Kosova, Vushtrria, and Drenas were declared an area of special economic interest due to the granting of the New Mining Field. The Bank must examine whether this government designation of special economic interest and subsequent relocation is in line with Bank policy as well as relevant national and international law.¹²⁰ Additionally, the RPF states that in terms of eligibility for resettlement and compensation, if an individual claims ownership of land but cannot show full legal title, the Project Company’s resettlement office will review the claim.

¹¹⁷ See section V.A.2, *supra*, on “Consideration of Project Alternatives.”

¹¹⁸ OP 4.12(6).

¹¹⁹ Spatial Plan, *supra* note 21, at 19.

¹²⁰ For example, is it consistent with rights respected under the Constitutions, as discussion in Section V.D.

But, it is not clear what this office is and how it would be managed.¹²¹ The Inspection Panel should consider whether this process is adequate to ensure that any resettlement occurs in line with Bank policy. Further, controversy exists over ownership of lands designated for restoration and resettlement, as “previous land owners (whose lands were expropriated during the nationalization period) have filed cases to regain property rights.”¹²² These issues must be resolved before further resettlement takes place. While the RPF does envision a grievance process,¹²³ this is hardly a replacement for resolving land titles beforehand.

Due to the declaration of special economic interest and the resulting uncertainty as to when homes will be condemned to make way for the new mine and plant, the economic and social development of the municipality of Obiliq is effectively paralyzed. To date resettlement documents do not clarify the extent of intended resettlement and do not fully consider the fact that the municipality has been in this state since 2004.¹²⁴ The impacts of the KPP will require significant resettlement and associated compensation.¹²⁵ According to the SESA, KPP development will most adversely affect the Obiliq municipality, which has a population of approximately 21,500.¹²⁶ Four villages will be severely affected by new lignite extraction and will require physical relocation. These villages include: Hade (5 km² and 2900 inhabitants); Leshkoshiq (3.7 km² and 1300 inhabitants); Shipitulle (1 km² and 100 inhabitants); and Sibofc (7.4 km² and 2020 inhabitants).¹²⁷ So far, the Government has partially relocated residents of Hade; those who remain continue to live in homes next to the Kosovo Electric Corporation (KEK) mine site. Of the relocated residents, some were relocated to Shkabaj village in Obiliq, others were moved to two residential complexes in Obiliq: Hade 1 and Hade 2. The Government has failed to adequately compensate displaced inhabitants, or ensure their economic stability and social integration.

The remaining settlements, including the municipal center of Obiliq itself, will experience significant impacts from lignite power generation. In particular, three settlements (Dardhishte, Cerna Vodica, and Berisha), with over 3300 inhabitants, lie “within a triangle of degrading influence” and will be heavily affected by facilities for electricity generation, ash dumps, waste landfills, and mineral developments.¹²⁸ For example, in Cerna Vodica, coal transportation belts run right through the village and cause significant disturbance to residents. Additionally, several government documents (attached) indicate that the village of Dardhishte, separated only by a road from the Kosovo A plant, is not fit for inhabitation and should be relocated. However, despite attempts to raise these concerns, residents have received no response from the Government or the Bank, as to whether they will be relocated and if so, how that will happen. Currently, the remaining residents of Hade do not know when relocation will occur. Residents of other villages do not know if they will be relocated or not. Requesters urge that they be

¹²¹ RPF, *supra* note 21, at 12.

¹²² Environmentally and Socially Sustainable Development Unit, Report No: 35870-XX, *Project Appraisal Document on a Proposed Grant*, 14, (May 15, 2006)

¹²³ See RPF, *supra* note 21.

¹²⁴ See *id.*

¹²⁵ Spatial Plan, *supra* note 21, at 65.

¹²⁶ Kosovo Census, *supra* note 10.

¹²⁷ Spatial Plan, *supra* note 21, at 40.

¹²⁸ *Id.*

informed and consulted about current plans for resettlement, and that any resettlement process be supervised to ensure that they are implemented effectively.

The RPF also does not adequately consider the loss of agricultural lands and livelihoods in this context. According to the Kosovo government, approximately 60% of the population living in the region are farmers, working in agricultural enterprises or for subsistence.¹²⁹ The majority of residents have “very low” incomes and “depend on extensive agriculture for [their] survival.”¹³⁰ A quarter of the population also supplements family income by 10% through the harvesting and sale of timber. The new Sibofc mine will directly convert 13% of the land in the Obiliq municipality, comprising fertile agricultural lands, settlements, roads, and forests on which these populations depend for food and livelihoods.¹³¹ The development of infrastructure for transportation of coal and ash, and impacts of dust, acid rain, and ash from landfills will further degrade agricultural lands and forests.¹³² The RPF’s solution to this land shortage – its heavy reliance on the use of rehabilitated lands as alternative farmland for displaced persons¹³³ – is inadequate. For example some land has “residual contamination levels”¹³⁴ that would make it difficult to rehabilitate for agricultural purposes. Requesters are concerned that there is insufficient agricultural land to restore livelihoods, and that there is no commitment from the Government or the Bank to provide programs for alternative economic integration. If resettlement occurs without suitable solutions to these issues, it would violate Bank policy because displaced persons have not been provided options that are equivalent to their previous situation.¹³⁵ Thus, if the Bank cannot provide a better solution for the problems arising from lost agricultural land, it will be unlikely to meet the requirements governing land-based resettlement.

KPP development will further compromise the social and cultural infrastructure of the affected zone. The four villages that will require immediate resettlement contain secondary schools, health facilities, and mosques, as well as historic memorials in both Hade and Shipitulle. The relocation of these communities will “disrupt[] social networks” and “lead to a loss of cultural heritage and local memories.”¹³⁶ These adverse social and cultural impacts will compound the difficulties that these project affected communities have already endured due to the “vagaries of war and the challenges of living near the mine and power plants.”¹³⁷ The KPP may also reduce cultural tourism to the Holy Tomb of Sultan Murat II near Obiliq, which brings approximately 20,000 visitors to the area each May.¹³⁸ The RPF should include these considerations.

¹²⁹ *Id.*, at 68.

¹³⁰ *Id.*, at 69.

¹³¹ SESA ex. sum., *supra* note 8, at 31.

¹³² Spatial Plan, *supra* note 21, at 80.

¹³³ *Id.*

¹³⁴ SESA, *supra* note 20, at 254.

¹³⁵ OP 4.12(6) and (11).

¹³⁶ SESA, *supra* note 20, at 315.

¹³⁷ *Id.*

¹³⁸ Spatial Plan, *supra* note 21, at 69.

3. Compensation for Lost Agricultural Land

OP 4.12 states that “preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land based.”¹³⁹ When land is offered, it should be “at least equivalent to the advantages of the land taken.”¹⁴⁰ OP 4.12 also provides that when land-based options are not available, “non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost.”¹⁴¹ At this stage, resettlement plans do not adequately address the compensation implications of the lack of suitable replacement agricultural land for a resettled population. As noted above, the area planned for mining development is largely composed of fertile land,¹⁴² and it is principally inhabited by large families who work in agricultural enterprises or independently as subsistence farmers. The SESA concluded that “there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods.”¹⁴³ Additionally, the RPF acknowledges that “there is an acute shortage of good agricultural land in the area around the proposed mining and power complex.”¹⁴⁴ Requesters note that relocated Hade residents, mostly farmers, are now housed in apartments with no access to land and little assistance to integrate into their new situations. They are also uncompensated for their lost agricultural land. The Bank must ensure that adequate compensation is provided, and these costs should be included in the externality costs of the proposed project.

4. Inadequate Community Consultation

Inadequate community consultation in development of plans for resettlement to date has led to the underestimation of resettlement and compensation that will be required due to loss of lands, residences, and livelihoods. Community consultation is necessary to appropriately value affected assets,¹⁴⁵ involve the public in decision-making processes, manage impacts on vulnerable groups, and resolve grievances, among other benefits.¹⁴⁶ OP 4.12 Annex A(15) contains requirements for community consultation for resettlement plans, including an RPF.

As noted above, the overall community consultation process was inadequate, and there has been little to no contact with local communities for the last three years. While it is important to note that some resettlement occurred before Bank involvement in the project, subsequent Bank consultation around resettlement is inadequate. With regard to prior consultation, the SESA itself notes that consultation with communities in the area was “poor or non-existent,”¹⁴⁷ and led to widespread discontentment and the migration of residents from surrounding villages.¹⁴⁸ In the village of Hade, for instance, previous activities related to the proposed project activities resulted in the resettlement of 85 families, who have been left with inadequate housing and

¹³⁹ OP 4.12(11).

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² SESA ex. sum., *supra* note 8, at 31.

¹⁴³ *Id.* at 62.

¹⁴⁴ RPF, *supra* note 21, at 13.

¹⁴⁵ *Id.* at 17.

¹⁴⁶ *Id.* at 23.

¹⁴⁷ SESA, *supra* note 20, at 317.

¹⁴⁸ *Id.*, at 313.

compensation.¹⁴⁹ The 495 families remaining in Hade endure economic hardships and suffer from environmental and health impacts,¹⁵⁰ including from “current pollution levels, extensive noise coming from current activities at the power plant and insecurity about the future progress the new mine.”¹⁵¹ Nevertheless, even after Bank involvement, and more than seven years after the decision to relocate Hade residents, the process of relocation is incomplete, residents have not been compensated adequately, and there is little to no information about how residents’ concerns will be addressed. The citizens who are still in Hade, expecting to be relocated, have no information on how their relocation is going to take place, the location of their future settlement, how they will be compensated, or when this process will begin. Residents of other villages where resettlement could take place in the future are also concerned by the lack of information and consultation. These hardships will likely continue under the development of the KPP unless the Bank remedies deficiencies in community consultation and compensation.

C. OP 10.04 – Economic Analysis

The Bank’s current economic analyses for the proposed Kosovo C fail to meet the requirements of OP 10.04. According to OP 10.04(1), the Bank must “conduct [an] economic analysis to determine whether the project creates more net benefits to the economy than other mutually exclusive options for the use of the resources in question.”¹⁵² This includes exploring project alternatives and considering the externalities of a particular project, neither of which were done adequately in this case. OP 10.04(2) explains that the Bank is required to ensure that (1) “the expected net present value (“NPV”) of the project’s net benefits [is] not . . . negative”¹⁵³ and that (2) the NPV is “higher than or equal to the expected net present value of mutually exclusive alternatives.”¹⁵⁴ In conducting an NPV analysis the Bank must consider a number of different factors, including “domestic and cross-border externalities,”¹⁵⁵ long-term sustainability,¹⁵⁶ and risk.¹⁵⁷

Although an economic analysis was conducted, presumably under the LPTAP,¹⁵⁸ this analysis was cursory and incomplete, and does not meet the requirements of OP 10.04. As described below, it fails to adequately account for project costs and externalities, fails to consider alternatives such as, energy efficiency schemes, hydropower, wind power, or solar energy, and fails to adequately consider long-term sustainability. The Expert Panel reviewing the KPP commissioned a new analysis, which the Bank release in December 2011 entitled Background

¹⁴⁹ SESA ex. sum., *supra* note 8, at 31.

¹⁵⁰ “Conditions for those still occupying the village are poor, with 26% earning significantly below average income and 21% living on less than 30 Euros a month. Environmental conditions are also a leading factor. The close proximity of the mine results in impacts from noise, particulate and safety issues related to the large trucks traveling on local roads.” *Id.*

¹⁵¹ SESA, *supra* note 20, at 215-16.

¹⁵² World Bank Operational Policy on *Economic Analysis*, OP 10.04 (1) [hereinafter OP 10.04].

¹⁵³ OP 10.04(2).

¹⁵⁴ OP 10.04(2).

¹⁵⁵ OP 10.04(8).

¹⁵⁶ OP 10.04(5).

¹⁵⁷ OP 10.04(6).

¹⁵⁸ Economic Analysis, *supra* note 22.

Paper: Development and Evaluation of Power Supply Options in Kosovo.¹⁵⁹ However even this analysis falls short of OP 10.04 requirements for similar reasons. Further, even if the Bank corrected the shortcomings of the current analyses and accounted for relevant costs and risks listed below, the KPP would very likely not meet the Net Present Value test required by OP 10.04(2).

1. Project Costs and Externality Costs

The Bank claims “Kosovo’s lignite is currently the least-cost option even after accounting for externalities.”¹⁶⁰ However, the Bank failed to adequately consider project costs, including externality costs. For example, the analysis fails to appropriately account for the costs of: improved water provision and transportation infrastructure; employee training; environmental and health harms, abatement technologies and associated impacts; lost agricultural production and resettlement; and mine closure. These costs, if properly factored in, will significantly increase overall project costs.

The Bank’s analyses are silent on the costs of managing and already stressed water system, and the costs of building adequate transportation infrastructure.¹⁶¹ Stress on the supply of water is a significant concern in the Iber-Lepenc water system,¹⁶² which is the expected source of water for the new mine and power plant. To meet the increased demand, the costs of improving the water systems must be accurately measured.¹⁶³ Additionally, the project will require updating transportation infrastructure. The heavy industrial equipment needed for the KPP may need to be shipped from outside of Kosovo and airlifted into the project site.¹⁶⁴ Updating this infrastructure, or alternatively airlifting industrial parts around it, has not been not adequately priced.

With respect to local employment, although the Bank’s analysis assumes that the project will create jobs,¹⁶⁵ it does not examine the cost of training programs necessary to ensure that local populations will have employment at the coal mine and the coal-fired power plants.

The Bank does not adequately address costs associated with damage to the environment and human health. First, the analyses so far focus *solely* on the environmental costs of air

¹⁵⁹ Kosovo Power Supply Options, *supra* note 97.

¹⁶⁰ KIP PID, *supra* note 5.

¹⁶¹ See generally Economic Analysis, *supra* note 22 (failing to examine water supply costs).

¹⁶² SESA, *supra* note 20, at 303 (“The Water Exploitation Index (WEI), calculated on the basis of the yearly average water demand (198 million m³), and the yearly water availability, equal to 410 million m³ as the multi-annual average and 250 million m³ as the worst year case, is 48% and 79% respectively which are significantly above the WEI warning threshold of 20%, distinguishing the non-stressed from a stressed region.”).

¹⁶³ KIPRED, *World Bank Kosovo Lignite Power Project: Full Cost Accounting*, 2 (Oct., 2011) (citing reports and concluding that “[t]he cost of these required water system improvements needs to be accounted for by the project financial analysis.”) (on file with author) [hereinafter Full Cost Accounting].

¹⁶⁴ *Affordable Electricity*, *supra* note x, at 10 (“Kosovo does not have the capacity to manufacture the specialized components needed – only a few countries do. Accordingly, the plant will essentially be imported and likely have to be shipped several thousands of miles. Kosovo is land locked and so, the large components that will be fabricated elsewhere will then have to be trucked many miles over poorly maintained roads or rails – negotiating switchbacks, tunnels and possibly requiring air lifting of heavy components at certain points.”)

¹⁶⁵ SESA, *supra* note 20, at 337.

pollution.¹⁶⁶ Beyond air pollution, the Bank's analysis fails to cover other relevant costs, such as waste management and health impacts of land and water pollution. Furthermore, the cost of abatement technologies and related impacts, particularly for dealing with harmful air pollutants is not adequately considered.¹⁶⁷ Also, the Bank's economic analysis compares the environmental costs of the lignite power plants only with fuel and gas alternatives, not renewables.¹⁶⁸ This significantly affects the cost benefit analysis in relation to project alternatives. Second, the assumptions used for the 2006 environmental cost estimates are unclear and the estimates do not provide a clear picture of the environmental and health costs associated with the project. The Bank's projection for environmental costs for the Kosovo plants is 15 Euros per MWh, and it is unclear what assumptions were made in the modeling that led to this figure.¹⁶⁹ As yet, it is unclear what specific pollution controls will be in place for Kosovo B and C, and thus what the emission levels and associated costs will be.¹⁷⁰

The Bank's analysis also does not adequately account for lost agricultural land and costs of resettlement. Sixty percent of the population in the project site relies on agriculture for their livelihood, either through subsistence farming or cash crop production.¹⁷¹ In addition to lost production because of competition for water resources, the mine is converting fertile land.¹⁷² The Bank's analysis does not account for these opportunity costs, nor does it account for the lack of agricultural land to resettle persons who rely on farming for their livelihoods.¹⁷³ Furthermore, the SESA contemplates the use of "reclaimed land" for agricultural uses, presumably for populations displaced by the project.¹⁷⁴ Converting reclaimed land into land suitable for farming will entail substantial costs.¹⁷⁵ These costs were not included in the Bank's analysis.¹⁷⁶

¹⁶⁶ *Accord Economic Analysis*, *supra* note 22, at 8 ("The model used here is the latest dispersion modeling (ECOSENSE) developed and maintained by the University of Stuttgart.") with ECOSENSE 4.0: USER'S MANUAL, INSTITUTE OF ENERGY ECONOMICS AND THE RATIONAL USE OF ENERGY 1 (2005), available at http://ecoweb.ier.uni-stuttgart.de/ecosense_web/ecosense4um.pdf ("*Ecosense* provides relevant data and models required for an integrated impact assessment *related to airborne pollutants.*") (emphasis added). Note that Kosovo Power Supply Options analysis also relies on this 2006 analysis.

¹⁶⁷ See generally, *Economic Analysis*, *supra* note 22.

¹⁶⁸ See *id.* at 8 (for the purposes of environmental costs, only "two comparator plants were considered – a heavy oil and a combined cycle gas turbine.").

¹⁶⁹ Kosovo Power Supply Options, *supra* note x, at 97.

¹⁷⁰ Additionally, it is useful to assess whether new models are available for calculating externality costs. European Environmental Agency's (EEA) damage cost figures, based on 2009 data, for damage costs of air pollutants released from coal plants is presented as an aggregated range. See EEA Report, *Revealing the Costs of Air Pollution in Europe*, 25 (2011), available at <http://www.eea.europa.eu/publications/cost-of-air-pollution>. For example, the TETs Maritsa Iztok-2 coal plant in Bulgaria (at 1450MW, which would be 250 MW more than Kosovo B and C combined), has an aggregated damage cost range of 1432-3339 million Euros for select air pollutants. *Id.*

¹⁷¹ Heike Mainhardt-Gibbs, *Kosovo Lignite Power Project: Resettlement Costs* (Dec. 2011) (citing SESA (2008)) (on file with author).

¹⁷² *Id.*

¹⁷³ See generally *Economic Analysis*, *supra* note 22 (failing to evaluate the opportunity cost of agriculture and the economics of agricultural land provision).

¹⁷⁴ WORLD BANK, DRAFT SIBOVIC DEVELOPMENT PLAN, 22 (contained in the SESA, contemplating land reclamation for agricultural activities).

¹⁷⁵ Full Cost Accounting, *supra* note 163, at 2 ("The Resettlement Framework seems to imply that it will rely heavily on the usage of reclaimed land, which would pose substantial costs and time to make it suitable for living/farming – costs currently not accounted for in the World Bank project analysis.")

¹⁷⁶ See generally *Economic Analysis*, *supra* note 22.

Finally, at the end of the project period, the Sibofc mine will need to be closed and the land returned to its previous condition.¹⁷⁷ The Bank's economic analysis does not address these costs, though the costs associated with mine closure and reclamation will be substantial.¹⁷⁸

2. Meaningful Alternatives

The omissions of significant costs and a failure to capture key variables in its risk analysis are symptoms of the Bank's general failure to conduct a proper analysis of meaningful alternatives, which is "one of the most important features of proper project analysis."¹⁷⁹ The Bank's analysis does not examine a meaningful mix of base, load-following and peaking units.¹⁸⁰ It also fails to analyze the cost-effectiveness of a common clean source peaking unit: hydropower.¹⁸¹ Hydropower resources are particularly relevant for the KPP project area, as the Bank describes the Kosovo's river system as a "well developed hydrological network."¹⁸² The Kosovo Energy Plan discusses at least two feasible hydropower sources: the HPP Zhhur and the HPP Ujman.¹⁸³ In another study the Bank and the EU Commission describe Kosovo as having "significantly more potential" for hydropower development than is currently utilized.¹⁸⁴ Furthermore, the analysis does not contain assessments of other renewable energy sources, such as the potential for wind and solar power, nor adequate consideration of energy efficiency measures.¹⁸⁵ As noted above, recent studies show that Kosovo could meet its energy needs by using a combination of an upgraded Kosovo B, energy efficiency measures, and renewable energy sources.¹⁸⁶ The Bank should consider these alternatives before deciding to fund a new power plant in an already stressed environment.

3. Risk Analysis and Long-term Sustainability

The Bank's economic analysis omits critical risk analysis variables that, if included, would significantly impact the NPV. To assess risk, the Bank must conduct a risk analysis that "estimates the switching values of key variables . . . and the sensitivity of the project's net

¹⁷⁷ This is required by THE WORLD BANK, TOWARD SUSTAINABLE DECOMMISSIONING OF OIL FIELDS AND MINES: A TOOLKIT TO ASSIST GOVERNMENT AGENCIES, (2010).

¹⁷⁸ *Id.* at Forward. ("These operations and the associated infrastructure will require complex and costly dismantling; technical and environmental restoration and rehabilitation measures; and socioeconomic investments to counteract retrenchment, post-closure economic downturns and other effects associated with the end of the project's productive life.")

¹⁷⁹ OP 10.04(3).

¹⁸⁰ For definitions of these terms see *Affordable Electricity*, *supra* note 16, at 10-11 ("[B]ase load units [] have a high capital cost, but low operating costs and overall COE ["cost of electricity], load-following units [] have lower capital costs, higher operating costs and overall COE and peaking units, with lowest capital costs, but high operating costs and COE.")

¹⁸¹ *Id.* at 14.

¹⁸² SESA ex. sum., *supra* note 8, at 22 (emphasis added).

¹⁸³ Energy Law Strategy for Kosovo, 25-26.

¹⁸⁴ THE WORLD BANK & EU COMMISSION, KOSOVO: TECHNICAL BACKGROUND PAPER ENERGY SECTOR, 15 (July 7, 2008).

¹⁸⁵ See generally, Economic Analysis, *supra* note 22.

¹⁸⁶ Kosovo Power Supply Options, *supra* note 97; Kosovo's Least Cost Option, *supra* note 23.

present value to changes in those variables.”¹⁸⁷ To perform these calculations, Bank guidance specifies “identifying the variables that most influence a project’s net benefits and quantifying the extent of their influence.”¹⁸⁸

First, the Bank’s analysis did not consider variation in electricity demand due to time of day, season, and weather.¹⁸⁹ This temporal variation in use means that cost-effective energy supply of electricity is best achieved through a mix of base load units, load following units, and peaking units.¹⁹⁰ Second, the Bank’s analysis fails to incorporate volatility in the price of coal. Coal inputs can be a significant and highly volatile variable in the cost of generating electricity¹⁹¹. The Bank erroneously assumes a 10-year old cost estimate of 0.89 € /GJ, substantially lower than estimates for other countries in the region.¹⁹² Third, the Bank’s analysis fails to account for the highly volatile construction costs of the project. Since the Bank’s economic analysis was performed, construction costs have spiked.¹⁹³ These key variables, if adequately addressed, would substantially alter the NPV for the KPP.¹⁹⁴

Additionally, the Bank must “assess[] the robustness of the project with respect to economic, financial, institutional, and environmental risks,” including “whether critical private and institutional stakeholders have or will have the incentives to implement the project successfully.”¹⁹⁵ It appears that the Bank assumes the KPP will provide a significant opportunity to provide electricity to the regional market.¹⁹⁶ An important factor here is the regulatory landscape in the European Union (EU), which is moving towards incentivizing renewable energy-based power generation and disincentivizing dirty energy sources. This could make fossil fuel-based power much less lucrative to export (and exports are expected from Kosovo C), especially to EU member countries, and thus threaten the long-term sustainability of the project and its development impact. Additionally, if Kosovo plans to accede to the EU in even the next 20 years, they would be subject to pollution pricing pursuant to the EU Emissions Trading Scheme or Directive 2003/87, which could be a significant financial burden. The Bank’s due diligence should include these types of legal requirements that are likely to apply during the

¹⁸⁷ OP 10.04(6) (“Switching values” are defined as “the value that each variable must assume to reduce the net present value of the project to zero” about which sensitivity is detailed as “ e.g., delays in implementation, cost overruns, and other variables that can be controlled to some extent.”)

¹⁸⁸ Handbook on Economic Analysis of Investment Operations, Chapter 12 ¶ 3, *available at* <http://siteresources.worldbank.org/INTCDD/Resources/HandbookEA.pdf> (last visited Mar. 2012). The Bank should “[a]t the very least . . . identify the critical variables that determine the outcome of the project, that is, the values that increase [or decrease] the likelihood that the project will have the expected positive net development impact.” *Id.*, at Chapter 2 ¶ 18.

¹⁸⁹ *Affordable Electricity*, *supra* note x, at 11; *see also* Kosovo’s Least Cost Option, *supra* note 23.

¹⁹⁰ *Affordable Electricity*, *supra* note x, at 10-11; *see also* Kosovo’s Least Cost Option, *supra* note 23.

¹⁹¹ Full Cost Accounting, *supra* note 163, at 1.

¹⁹² *Affordable Electricity*, *supra* note x, at 16 (citing figures of 1.71 € /GJ for Bosnia and Herzegovnia, 2.44 € /GJ for Montenegro, and 1.34 € /GJ for Serbia, among others.)

¹⁹³ *Id.* at 8-9 (citing, *inter alia*, DOE figures).

¹⁹⁴ *Id.* at 17 (“Assuming a reasonable load factor for [Kosovo B & Kosovo C] doubles the predicted LCOE of those units. If one then simply adjusts the outdated cost estimates to reflect the change in the Power Capital Cost Index, the effect is to roughly redouble the predicted LCOE. *The World Bank Group should carefully consider the risk of imposing such a large increase in the cost of electricity on the Kosovar economy before participating in such an effort.*”) (emphasis added).

¹⁹⁵ OP 10.04.

¹⁹⁶ SESA, *supra* note 20, at 4.1.2.4.

lifetime of the plant, particularly because of this context. However, the Bank's analysis did not contain any consideration of the EU's regulatory trend and its potential development risk.

D. Compliance with Rights Protected by the Kosovo Constitution

Bank policies require that financed projects do not contravene country obligations as found in “national legislation[] . . . related to the environment and social aspects[] , , , and obligations . . . under relevant international environmental treaties and agreements.”¹⁹⁷ Similarly, the Bank “tries to work within existing law to the extent possible.”¹⁹⁸

Kosovo's Constitution incorporates the following agreements and instruments directly into their constitution: (1) Universal Declaration of Human Rights; (2) European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols; (3) International Covenant on Civil and Political Rights and its Protocols; (4) Council of Europe Framework Convention for the Protection of National Minorities; (5) Convention on the Elimination of All Forms of Racial Discrimination; (6) Convention on the Elimination of All Forms of Discrimination Against Women; (7) Convention on the Rights of the Child; (8) Convention against Torture and Other Cruel, Inhumane or Degrading Treatment or Punishment.¹⁹⁹ Article 22 of the Constitution guarantees the human right and freedoms protected by these instruments. Further, Article 3(2) of the Constitution accords “full respect for internationally recognized fundamental human rights and freedoms.”²⁰⁰ Additionally, Article 53 of the Constitution states that Kosovar interpretation of those “human rights and fundamental freedoms” shall be consistent with the jurisprudence of the European Court of Human Rights.²⁰¹

The human rights guaranteed pursuant to those provisions are incorporated directly into Kosovo's national laws via the Constitution. Thus, the Bank must evaluate whether the project complies with Kosovar law and what effect this project will have on relevant human rights. In accordance with the Panel's decision in the *Honduras Land Administration* claim, the Panel the Bank must also assess the impacts of the domestic legal framework on the protections afforded to affected peoples the Bank's policies.²⁰² There are a number of areas where rights are implicated. The Bank's SESA currently under consideration makes no mention, nor provides even a framework for assessing the impact on the following rights.

1. Impacts on the Labor Union

In addition to the concerns related to local employment and safe working conditions raised in Section V.A, there are significant concerns about the privatization of Kosovo B and Kosovo C. In the past, the state-owned company in charge of mining and plant operations, KEK, has been

¹⁹⁷ OP 4.01(3).

¹⁹⁸ World Bank Operational Policy 7.00, *Lending Operations*, 7.00(14).

¹⁹⁹ Kosovo Constitution, art. 22, available at

<http://www.kushtetutakosoves.info/repository/docs/Constitution.of.the.Republic.of.Kosovo.pdf> .

²⁰⁰ *Id.* art. 3(2).

²⁰¹ *Id.* art. 53.

²⁰² See World Bank Inspection Panel, *Investigation Report: Honduras: Land Administration Project (IDA Credit 3858-HO)* (2007).

managed by private entities, and there is a history of problems associated with collective bargaining and freedom of association. More generally, Requesters are concerned because instances of privatization in other sectors within Kosovo show that at times existing unions have faced significant discrimination. Against the backdrop of these problems, both generally and specific to the energy sector, the Bank must ensure that project activities would respect the following rights:

The right to collective bargaining and freedom of association: Kosovo's Constitution directly recognizes the right to freedom to establish trade unions.²⁰³ The European Convention on Human Rights also protects freedom of association, and is thus guaranteed by the Constitution.²⁰⁴ The right to collective bargaining is necessary to enjoy this right. Through the Universal Declaration on Human Rights (UDHR), the Constitution also recognizes the right of peaceful assembly and association²⁰⁵ and the right to form and to join trade unions for the protection of worker interests,²⁰⁶ the right to freedom of association with others.²⁰⁷ Freedom of association has been recognized by the EU in multiple cases.²⁰⁸

The right to health: (including safe working conditions) Through the UN Declaration on Human Rights (UDHR), Kosovo's Constitution recognizes the right to "just and favourable conditions of work and to protection against unemployment"²⁰⁹ and "the right to a standard of living adequate for the health and well-being of himself and of his family, including ... the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."²¹⁰ European jurisprudence, especially through the Council of Europe's Social Charter,²¹¹ has recognized the right to health with respect to working conditions.²¹² Although Kosovo is not a member of the European Union, as noted above, it does have aspirations to accede. Given the long-term nature of the proposed project and Kosovo's aspirations to accede, the Bank should consider this project in the context of potential accession to the EU; the Bank's due diligence should include legal requirements that will apply during the lifetime of the project.²¹³

²⁰³ *Id.* art. 44.

²⁰⁴ Convention for the Protection of Human Rights and Fundamental Freedoms, art. X, Nov. 4, 1950, Europ.T.S. No. 5; 213 U.N.T.S. 221 [hereinafter ECHR].

²⁰⁵ United Nations, Universal Declaration of Human Rights UDHR, art. 20(1), available at <http://www.un.org/en/documents/udhr/> [hereinafter UDHR].

²⁰⁶ *Id.* at Art. 23(4); ECHR, *supra* note 204, at art. 11(1); Kosovo Constitution, *supra* note x, art. 44.

²⁰⁷ UDHR, *supra* note 205, at art. 17(1).

²⁰⁸ See Case C-499/04, Hans Werhof v. Freeway Traffic Systems GmbH & Co., KG (Mar. 9, 2006).

²⁰⁹ UDHR, *supra* note 205, art. 23(1).

²¹⁰ *Id.* art. 25(1).

²¹¹ European Social Charter, Part I ¶3, available at

http://www.coe.int/t/dghl/monitoring/socialcharter/Presentation/AboutCharter_en.asp#. The Social Charter requires the elimination of occupational hazards so as to ensure that health and safety at work are provided for by law and guaranteed in practice.

²¹² See Case C-256/10, C-261/10, Barcenilla Frenandez and Macedo Lozano v. Gerardo Garci SL (May 19, 2011).

²¹³ It follows that the Bank could look to the Social Charter for context.

2. General Impacts from Proposed Activities

The Bank must demonstrate how project activities would respect the following relevant rights within the context of the broader environmental and social impacts of the project, such as pollution and changes to land use patterns:

The right to health: As discussed above, the Kosovar Constitution guarantees the right to health. The proposed project will have numerous negative, long-term impacts on the health of the population in the affected region. The Bank must assess these impacts in the context of the right to a health.

The right to food: The UDHR recognizes the right to food, and thus guaranteed by the Constitution.²¹⁴ The project will have impacts on land-use patterns in the project area as well as serious broader impacts on access to water for irrigation for agricultural uses. Moreover, pollutants emitted from the power plants and mines can contaminate local produce and livestock. The Bank must assess the impacts of the project on the right to food.

The right to water: The right to water is necessary for the enjoyment of the right to food.²¹⁵ The right to water can be interpreted through the lens of work done in other bodies and could be considered by the Bank. This right should further be viewed in the context of the 2010 United Nations General Assembly resolution recognizing the right to water and sanitation.²¹⁶ The project is likely to have severe impacts on local water supplies and the Bank should assess these impacts in the context of the right to water.

The right to housing: Kosovo recognizes “the right to a standard of living adequate for the health and well-being of himself and of his family, including ... housing.”²¹⁷ Particularly, in the context of resettlement related to the project, the Bank must assess the impacts on this right. Furthermore, the Bank must assess whether the implementation of the resettlement schemes, and the application of the “special economic interest” designations are sufficiently protective of the claimant’s rights under the Kosovo Constitution and their interests under Bank policies.

E. OMS 2.20 – Project Appraisal

OMS 2.20 details the major aspects and associated procedures of the Bank’s project appraisal process. Generally, appraisal involves examining six aspects of a project: “(a) economic, e.g., project costs and the size and distribution of benefits; (b) technical, e.g., engineering design and environmental matters; (c) institutional, e.g., management and organization; (d) financial, e.g., requirements for funds and the financial situation of the implementing agency and of other beneficiaries affected by the project; (e) commercial, e.g., procurement and marketing

²¹⁴ UDHR, *supra* note 205, art. 25(1).

²¹⁵ Economic and Social Council, General Comment no. 15, *The Right to Water*, ¶¶ 2,3 (2002) http://www2.ohchr.org/english/issues/water/docs/cescr_gc_15.pdf.

²¹⁶ United Nations General Assembly Resolution, *The Human Right to Water*, A/Res/64/292 (Aug. 3, 2010) available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/479/35/PDF/N0947935.pdf?OpenElement>.

²¹⁷ *Id.*

arrangements; and (f) sociological aspects, e.g., socio-cultural factors and impact on specific target groups such as women.”²¹⁸ For reasons already detailed above, the Bank has failed to adequately appraise the proposed project, particularly with respect to quantifying economic costs, incorporating environmental and social impacts, and considering the implications of privatizing power generation.

Additionally, OMS 2.20 requires the Bank to ensure that the projects it supports are consistent with international obligations of the host country regarding the environment, health and public welfare. OMS 2.20 provides that:

[A] project’s possible effects on the country’s environment and on the health and well-being of its people must be considered at an early stage... Should international agreements exist that are applicable to the project and area...the Bank should be satisfied that the project plan is consistent with the terms of the agreements.

The Inspection Panel has previously concluded that the Bank has specific, auditable due diligence requirements under this provision of OMS 2.20. In its inspection report on the *Honduras: Land Administration Project*, the Inspection Panel concluded that OMS 2.20 creates an independent obligation for the Bank to consider whether the proposed Project plan and its implementation would be consistent with the host country’s obligations under its relevant international agreements.²¹⁹

In the instant case, the World Bank has not done the due diligence required under OMS 2.20 to ensure that the project’s plan and implementation would be consistent with Kosovo’s obligations under the *Energy Community Treaty*.²²⁰ The *Energy Community Treaty* is an agreement between the European Community, Kosovo, and eight other Contracting Parties in South East Europe to establish an integrated market in natural gas and electricity based on common standards and norms. Towards this end, the *Energy Community Treaty* requires Kosovo to implement the European *acquis communautaire* on energy, environment, competition and renewables, among other standards.²²¹

In particular, the Bank has not properly considered whether the project:

- Is being implemented in a manner consistent with the public consultation requirements of Directives 85/337/EEC, 97/11/EC, and 2003/35/EC referenced in Article 16. See, sections V(A)(3), V(B)(4);
- Complies with the requirements of Directive 2001/80/EC as amended on the limitation of emissions of certain pollutants into the air from large combustion plants, and Directive 96/61/EC on Integrated Pollution Prevention and Control (IPPC) which is closely associated with Directive 2001/80/EC.

²¹⁸ World Bank Operational Manual Statement, *Project Appraisal*, OMS 2.20(9).

²¹⁹ Honduras: Land Administration Project, *supra* note 202, at ¶258.

²²⁰ http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Legal/Treaty

²²¹ *Energy Community Treaty*, Title II.

VI. CONSISTENCY WITH THE BANK'S STRATEGIC FRAMEWORK ON DEVELOPMENT AND CLIMATE CHANGE

The Bank's Strategic Framework on Development and Climate Change (SFDCC) specifically sets out criteria under which the Bank should assess investments in coal projects, such as the KPP.²²² The SFDCCC Expert Panel's report for the KPP found that the proposed activities are consistent with these criteria,²²³ however there is inadequate consideration of numerous issues and thus, the report does not appropriately assess the project against the guidance.²²⁴

In the first instance, the terms of reference for the Expert Panel were insufficient to provide for a full analysis of relevant factors. For example, the terms of reference did not adequately explore viable alternatives; failed to consider Kosovo's need for a mix of base load, load following, and peaking capacity; and underestimated published estimates of electricity prices.²²⁵ The ultimate report still does not adequately address these issues, and, in addition, does not adequately address environmental and health externalities.

The Bank's failure to adequately demonstrate development impacts, such as improving energy access for the poor or energy security, is inconsistent with Criterion I's requirement to demonstrate development impacts.²²⁶ While the Expert Panel concludes that a new plant will address the supply/demand gap, energy access also encompasses issues of price, income, and affordability for vulnerable groups.²²⁷ Additionally, the Bank significantly underestimates electricity rates, as well as the impact of privatization leading to a de facto monopoly on power generation.²²⁸ Thus, it is not clear what the actual development benefits will be.

The failure to adequately consider energy efficiency measures and renewable energy alternatives is inconsistent with SFDCC Criteria II, III, and IV. Criterion II requires that "assistance is being provided to develop low carbon projects,"²²⁹ and Criterion IV requires full consideration of viable alternatives to the least cost (including environmental externalities) options."²³⁰ Without fully examining the role of alternatives in the context of Kosovo's need for a mix of base load and peaking capacity, the project cannot meet the requirements of either criterion. Additionally, the inadequate consideration of energy efficiency solutions is inconsistent with the Criterion III requirement that "energy sources are optimized, looking at the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation." In Kosovo, energy generation is not optimized due to substantial unresolved technical and commercial losses. In 2007, only 53% of the gross energy consumption was billed; and from

²²² World Bank Group, *Criteria for Screening Coal Projects Under the Strategic Framework for Development and Climate Change* (2011) [SFDCC].

²²³ SFDCC Expert Panel Report, *supra* note 6.

²²⁴ See Issues of SFDCC Non-Compliance, *supra* note 16.

²²⁵ See Kosovo's Least Cost Option, *supra* note 23, at 4-5; Affordable Electricity, *supra* note 16.

²²⁶ SFDCC, *supra* note 222, Criterion I.

²²⁷ Issues of SFDCC Non-Compliance, *supra* note 16, at 3.

²²⁸ *Id.*

²²⁹ SFDCC, *supra* note 222, Criterion II.

²³⁰ "After full consideration of viable alternatives to the least-cost (including environmental externalities) options and when the additional financing from donors for their incremental cost is not available." *Id.* Criterion IV.

this billed energy, only 76% was successfully collected.²³¹ In 2007, these commercial losses amounted to 1,333 GWh, equivalent to the sum of the entire production of Kosovo A, all production from the hydro power plants and part of Kosovo B production.²³² It appears that the Bank is counting on privatization of the grid to remedy these losses. Instead, the Requesters urge the Bank to stem these losses before deciding to invest in building new generating capacity.

With respect to externalities, although the report states that the KPP is still the least cost option even after accounting for environmental externalities, the analysis is inadequate. First, as far as Requesters can ascertain, the externalities only extend to air pollution. Second, the modeling for externalities may not reflect the most current standards. Based on the 2011 World Bank Background Paper for the project, it appears that the externality costs were calculated in 2006; these calculations should be updated to reflect current modeling standards, at the very least consistent with European standards.²³³ Furthermore, without specifying pollution controls and expected emission levels, it is impossible to adequately assess externalities. This failure to properly account for externalities coupled with concerns about monitoring pollution (described above) is not only inconsistent with Criterion IV, it is also inconsistent with Criterion VI, which requires “an approach to incorporate environmental externalities in project analysis.”²³⁴ For these reasons, the Expert Panel report does not contain an accurate assessment of the project against the SFDCC guidance.

VII. CONCLUSION

For the reasons described above, Requesters will suffer numerous harms from the KPP due to violations of Bank policies and procedures, including: OP 4.01, OP 4.12, OP 10.04, OMS 2.20, and the SFDCC.

²³¹ Energy Law Strategy for Kosovo, *supra* note 183, at 23-24.

²³² *Id.*

²³³ As noted above, 2009 figures from Europe indicate that environmental and health costs of pollution are significant. EEA Report, *supra* note x.

²³⁴ SFDCC, *supra* note 222, Criterion VI.

VIII. APPENDIX 1: CONTACT WITH THE WORLD BANK

The communications referred to in Section II.C are attached. They are:

1. Letter to the World Bank from community representatives raising concerns about the KPP (March 6, 2012).
2. Letter from Kosovo civil society organizations to World Bank President (November 8, 2011).
3. Email from Mr. Sinani to Scott Sinclair requesting information about LPTAP financing, SFDCC Expert Panel TORs, and a hydrological study of the Ibar Lake (May 31, 2011).
4. Email from Mr. Sinani to several Bank officers requesting information about studies on alternative energy sources (June 6, 2011).
5. Email and attachment from Mr. Sinani raising concerns about the SFDCC Export Panel Terms of Reference (August 25, 2011).
6. Chain of emails from Mr. Sinani to Jane Armitage and Mohinder Gulati requesting that documents (particularly studies) available to the SFDCC Expert Panel be made public (September 2011).
7. “Energy Projects in Kosovo” publication sent to several Bank staff (October 2011).
8. Email from Mr. Sinani raising concerns about air quality monitoring in Kosovo (February 23, 2012).
9. Email confirming the in-person meeting with Jane Armitage about the KPP.

IX. APPENDIX 2: TECHNICAL REPORTS AND ADDITIONAL DOCUMENTS

The following technical reports and documents, in support of the above analysis, are attached:

1. Daniel M. Kammen, M. Mozafari and D. Prull, Sustainable Energy Options for Kosovo: An Analysis of Resource Availability and Cost (Jan. 15, 2012)
2. Bruce C. Buckheit & Sierra Club, Affordable Electricity for Kosovo?: A Review of World Bank Group Cost Estimates For New Lignite-fired Plants in Kosovo (Oct. 2011)
3. Bruce C. Buckheit & Sierra Club, Reevaluating Kosovo’s Least Cost Electricity Option, (Jan. 2012)
4. Steve Herz, Sierra Club, Issues of Non-Compliance with World Bank’s Criteria for Screening Coal Projects Under the Strategic Framework for Development and Climate Change (Mar. 6, 2012)
5. Department for Industrial Safety and Fire Protection (within KEK), Statistics on costs for work related accidents
6. Department for Industrial Safety and Fire Protection (within KEK), Statistics on work-related deaths
7. Letter from Ministry of Environment and Spatial Planning (MESP) Working Group to Kosovo Assembly regarding dangers to villages, including Dardhishte (April 25, 2008), and Internal Memo of the Ministry of Energy and Mines (to the Minister) on dangers to Dardhishte (March 25, 2008).
8. Letter from Independent Commission for Mines and Minerals to KEK, asking KEK to undertake measures to protect Dardhishte from mining impacts (April 16, 2008)

9. Letter from Obiliq Municipality to representative of Dardhiste stating that the MESP is investigating dangers to Dardhishte and that the village should receive free drinking water from KEK (May 8, 2008).
10. MESP document stating that Dardhishte should be relocated (April 16, 2008).
11. Decision by MESP to form an Inspection Group to investigate problems in Dardhishte (June 11, 2008).
12. Report by Inspection Group formed by MESP, recommending relocation of Dardhishte (August 2008).

From: **Besiana Gashi** <besiana.gashi@gmail.com>

Date: Tue, Mar 6, 2012 at 1:06 PM

Subject: Kosovo Community Complaint

To: jarmitage@worldbank.org

Cc: jolters@worldbank.org, tahlers@worldbank.org, nezir.sinani@indep.info, [krenar.gashi@ind
ep.info](mailto:krenar.gashi@ind
ep.info)

Dear Ms. Armitage,

Attached to this email you will find a complaint signed by the representatives of the community of Obiliq, which relates to the New Kosovo Power Plant project. It is available in both languages, English and Albanian.

Best regards,

Besiana Gashi

E-mail: besiana.gashi@gmail.com

Cell Phone: [+377 44 250 612](tel:+37744250612)

March 5, 2012

Ms. Jane Armitage
Country Director and Regional Coordinator for Southeast Europe
World Bank
1818 H Street, NW
Washington, DC 20433
USA

Re: The concerns of the Obiliq community regarding the energy projects

Dear Ms. Armitage:

The undersigned community representatives in the municipality of Obiliq, Kosovo are concerned about World Bank (Bank) involvement in Kosovo's energy sector. The Bank is currently involved in this sector through two projects: the Kosovo Power Project (KPP) (No. P118287) and the Lignite Power Technical Assistance Project (LPTAP) (No. P097635). Both projects, and in particular the new power plant and the new lignite mine contemplated by the KPP, are likely to contribute to significant environmental and social impacts and associated costs, in an area that is already heavily impacted by lignite mining and power generation. At present, these impacts have not been sufficiently addressed by the Bank, and many could be avoided through more environmentally sustainable alternative projects. Community members are particularly concerned that: the KPP, particularly the new mine and plant, will cause substantial environmental degradation and related health harms; the KPP is likely to create the need for resettlement in an area without sufficient arable lands and lead to loss of livelihoods without adequate compensation; the KPP is likely to cause harm to workers and the local economy; and the Bank has failed to ensure adequate transparency and consultation regarding the potential impacts of the project.

Resettlement is a particularly pressing problem in this context. In 2004, the Government of Kosovo declared the villages of Hade, Sibovc, Leshkoshiq and Cerna Vodica as areas of special economic interest, which effectively allowed the Government to initiate relocation of residents as needed. The process of relocating Hade residents by the Government, as well as subsequent World Bank consultations with affected residents, has been inadequate. More than seven years after the decision to relocate Hade residents, the process of relocation is incomplete, residents have not been compensated adequately, and there is little to no information about how residents' concerns will be addressed.

For example, to date, only some of the residents of Hade have been relocated, and those who remain continue to live in homes next to the Kosovo Electric Corporation (KEK) mine site. Of the relocated residents, some were relocated to Shkabaj village in Obiliq, others were moved to two residential complexes in Obiliq: Hade 1 and Hade 2. The Government has failed to adequately compensate displaced inhabitants, or ensure their economic stability and social integration. The citizens who are still in Hade, expecting to be relocated, have no information on how their relocation is going to take place, the location of their future settlement, how they will be compensated, or when this process will begin. These issues are unresolved, even after Bank involvement in the project.

In March 2009, three additional villages, of Fushë Kosova, Vushtrria, and Drenas, were declared an area of special economic interest due to the granting of a "New Mining Zone". The New Mining Zone encompasses an area of 143.254 km², affecting 22 land titles. Currently, over 70% of Obiliq municipal territory has been declared an area of special economic interest, paralyzing the municipality's economic and social development, in part, because residents do not know if or when their homes will be condemned to make way for the new mine and power plant.

Another pressing concern is local employment and working conditions. The Government decision to give the management of the existing Kosovo B power plant to the same company that would win the contract for the construction of the new power plant is against the interests of current local employees. The plants are currently managed by KEK, a state-owned enterprise. Employees are concerned that privatization will lead to job cuts, salary reductions, and a situation where legal procedures are neglected. Such a decision only transfers the current monopoly from the public to the private sector. Furthermore, employees who would be made redundant as a result of decommissioning Kosovo A are concerned that a new company will not hire them, and if not, that the government will not provide programs for them to be compensated.

The Kosovo Energy Trade Union (SPEK) is particularly concerned about job loss. Current management is already publishing high figures for job cuts (eliminating at least 1200 jobs), foreseeing the involvement of private companies in Kosovo's energy sector. Lack of funds dedicated to addressing social issues is likely to cause significant social unrest. Some employees are not good candidates for re-training due to their age, nor is it feasible for them to find jobs outside of the professions that they currently have. Thus, there would need to be adequate financial support for such employees who lose their jobs as a result of this new project.

After the Bank became involved in the project in 2006, it held several meetings with the residents of the villages of Obiliq. However, those meetings were not adequate to ensure that the communities were aware of the impacts or that their feedback was incorporated. The consulting companies hired by the Bank to conduct the community meetings, Community Development Fund and Management and Development Associates, have not been able to answer the questions and concerns raised by community members. All the companies have done is to compile the concerns of the citizens. Since the last consultation with communities, held more than 3 years ago, no one has informed the communities how the World Bank and the Kosovo Government will address their concerns or demands.

Some of the requests and concerns raised by the citizens during these consultative meetings are as follows:

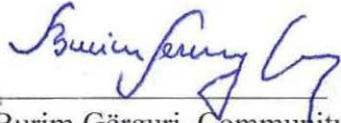
- *Where will the new power plant be built?* The citizens still do not have information about the location of the proposed new power plant. The citizens have, until now, heard three versions of the possible construction sites for the new power plant: near Kosova A power plant, near Kosova B power plant, and in Bivolak village. The citizens have expressed their opinion that if a new plant is built, it should be built near Kosova B power plant (this option has been supported by the Municipal Assembly of Obiliq), but they have received no response from the World Bank or the Kosovo Government and do not know whether their request has been taken into account.

- *How will the new power plant affect drinking water for residents?* The citizens have requested that any the project undertaken should not affect their water supply, which is already under stress. Additionally, the project should not further diminish water quality in the area. Residents of these areas already face problems with the dire quality of drinking water coming out of the wells.
- *What is the plan for the relocation of the residents of Hade village and residents of the surrounding villages?* When is the process of relocating Hade residents expected to restart? And when will relocated residents be adequately compensated? The citizens who are waiting for relocation from their properties have opposed the relocation from their current homes to another location in the Obiliq municipality, fearing that they will have to be relocated again because the majority of the municipality area is a designated area of special economic interest. Additionally, a report by Inkos, the laboratory that measures pollution levels in the area, found that some surrounding villages, such as Dhardhishte, have such poor environmental conditions that it is not safe for residents to continue living there. Despite subsequently raising these concerns, there is no response as to whether residents of Dardhishte and other similar villages will be relocated.
- *How will the construction of Kosovo C (new power plant), the decommissioning of Kosova A, and the privatization of Kosovo B and C affect employment?* Will there be more employment or will the current workers also be laid off? Will working conditions for retained employees be improved? Residents have repeatedly requested that those living in the municipality receive priority for jobs in the existing and new power plants. Also, there are requests for special training programs for workers in the area for clean and renewable energy projects.
- *What technology will be used in Kosovo B and C to reduce negative impacts on the environment and health?* The citizens have expressed their continued concern about the lack of filters in the existing power plants and, in those stacks with filters, accounts that the KEK management has turned them off at night. As a result, citizens have asked for an independent supervisory body, which would consist of representatives of the surrounding communities, to monitor the work of the filters in the power plants. To date, there has been no response to these requests.

We are also aware that Mr. Nezir Sinani and Mr. Krenar Gashi from the Institute for Development Policy (INDEP) have communicated numerous concerns about the LPTAP and KPP to the World Bank. INDEP participates in a coalition including the following non-governmental organizations: Dokufest; Forum for Civic Initiatives (FIQ); GAP Institute; Prishtina Institute for Political Studies (PIPS); Institute for Development Policy (INDEP); Internews Kosova; Kosovo 2.0; Youth Initiative for Human Rights (YIHR); Balkan Investigative Reporting Network (BIRN); and Saferworld. We would like to incorporate by reference all concerns raised by Mr. Sinani, Mr. Gashi, and their colleagues in the coalition, including the following: impacts of pollution (air, water, and land) to the environment and human health; impacts on workers, in particular relating rights to collective bargaining and freedom and association, as well as safe working conditions; unsustainable water usage; social impacts on agriculture; social impacts on local employment; concerns about involuntary resettlement; lack of consideration of viable alternatives; inadequate consideration of social and environmental costs in project economics; and the general lack of information disclosure and consultation.

As demonstrated above, both the Kosovo Government and the World Bank have failed to conduct adequate and transparent consultation processes from 2004 onwards. The proposed project has already resulted in significant harms to residents. Thus, the residents of the villages affected by the proposed project, listed below, require immediate attention from World Bank personnel regarding the concerns raised above.

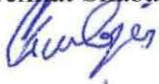
Sincerely,



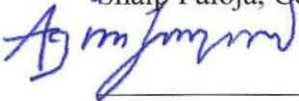
Burim Gërguri, Community Representative for Dardhishte, ID 1014702144



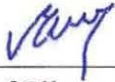
Nexhat Shabani, Community Representative for Obiliq, ID 1005913019



Shaip Paloja, Community Representative for Cerna Vodica, ID 1013621981



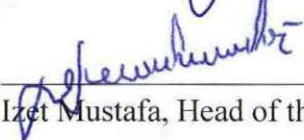
Agim Preniqi, Parliamentary Representative for Hade, ID 1005912217



Eshref Pllana, Community Representative of Lajthishte/Sibofc, ID 1014706018



Besianë Gashi, Community Representative of Obiliq, ID 117246332



Izet Mustafa, Head of the Kosovo Energy Trade Union (SPEK), ID 1005373120

Cc:

Mr. Jan-Peter Olters

Country Director to Republic of Kosovo

Mr. Ted Ahlers

Operations Director for Europe and Central Asia

05 mars 2012

Znj. Jane Armitage
Drejtoreshë vendi dhe koordinatorë rajonale për Evropën jug-lindore
Banka Botërore
1818 H Street, NW
Washington, DC 20433
SHBA

Për: Shqetësimet e komunitetit të Obiliqit lidhur me projektet energjetike

E nderuara znj. Armitage,

Përfaqësuesit e komunitetit në Komunën e Obiliqit, nënshkruar të kësaj ankese janë të shqetësuar në lidhje me përfshirjen e Bankës Botërore (Banka) në sektorin energjetik të Kosovës. Përfshirja e Bankës në këtë sektor po bëhet nëpërmjet dy projekteve: Projekti për energji I Kosovës (KPP) me Nr. P118287 dhe Projektit të Asistencës Teknike për Energji nga Linjiti (PATEL) me Nr. P097635. Të dy projektet, e në veçanti termocentrali i ri dhe miniera e re e linjtit të parashikuara nga KPP, ka të ngjarë se do të kenë ndikime të mëdha mjedisore dhe shoqërore si dhe shpenzime ndër-lidhëse në një zonë e cila tashmë është prekur rëndë nga minierat e linjtit dhe gjenerimi i energjisë elektrike. Gjer më tani, këto ndikime nuk janë adresuar nga Banka ashtu si duhet, ndikime këto të cilat mund të shmangen nëpërmjet projekteve ekologjike të qëndrueshme alternative. Pjesëtarët e komunitetit janë të shqetësuar ngase: KPP, veçanërisht miniera dhe termocentrali i ri, do të shkaktojnë degradim të konsiderueshëm të mjedisit dhe dëmtime në shëndetin e banorëve; KPP ka të ngjarë se do të krijojë nevojën për rivendosjen në një zonë ku tokat nuk janë mjaftueshëm pjellore gjë e cila do të shkaktojnë humbjen e jetesës pa kompensim adekuat; KPP ka të ngjarë se do të u shkaktojë dëm punëtorëve dhe ekonomisë vendase; dhe se Banka ka dështuar në sigurimin e transparencës së duhur dhe konsultimeve në lidhje me ndikimet e mundshme të projektit.

Në këtë kontekst, zhvendosja është problem i një rëndësie të veçantë. Në vitin 2004, Qeveria e Kosovës shpalli fshatrat Hade, Sibovc, Leshkoshiq dhe Cerna Vodice, zona të interesit të veçantë ekonomik me një vendim i cili efektivisht lejon Qeverinë që të fillojë zhvendosjen e banorëve. Procesi i zhvendosjes së banorëve të Hades nga Qeveria si dhe konsultimet pasuese me banorët e prekur nga Banka Botërore ka qenë i pamjaftueshëm. Edhe pas shtatë viteve të vendimit për zhvendosje të banorëve të Hades, procesi i zhvendosjes mbetet i pakompletuar, banorët nuk janë kompensuar në mënyrë adekuate, dhe se ka pak ose aspak informacion rreth asaj se si shqetësimet e banorëve do të adresohen.

Për shembull, tani vetëm një pjesë e banorëve të fshatit Hade janë zhvendosur, gjersa gjysma e banorëve të Hades edhe më tutje vazhdojnë jetën në shtëpitë e tyre afër eskavatorëve të KEK-ut. Një pjesë e Hades janë zhvendosur në fshatin Shkabaj të Obiliqit, gjersa për një pjesë tjetër të banorëve janë ndërtuar dy komplekse banesore në Obiliq: Hade 1 dhe Hade 2. Qeveria ka dështuar së kompensuari drejtë banorët e zhvendosur, apo të iu sigurojë një qëndrueshmëri ekonomike dhe integrim social. Banorët të cilët ende ndodhen në Hade dhe presin zhvendosjen nga ky fshat, nuk kanë asnjë informacion se si do të bëhet zhvendosja e tyre, cili do të jetë vendbanimi i ardhshëm, si do të kompensohen apo kur do fillojë ky proces. Këto çështje janë të pazgjidhura, edhe pas përfshirjen e Bankës në projekt.

Në vitin 2009, zona e interesit të veçantë ekonomik është zgjeruar edhe me tri fshatra tjerë të Fushë Kosovës, Vushtrrisë dhe Drenasit për shkak të dhënies së "Fushës së Mihjes së Re". Fusha e Mihjes së Re përfshin një hapësirë prej 143,254 km² dhe shtrihet në 22 zona kadastrale. Mbi 70% e territorit të komunës së Obiliqit është shpallur zonë e interesit të veçantë ekonomik dhe kjo paralizon komunën në aspektin e zhvillimit ekonomik dhe social, ngase banorët nuk janë të sigurt në planifikim afatgjatë apo për të ndërtuar, ngase nuk janë të informuar se në çfarë afati kohor vendbanimi i tyre mund të shndërrohet në vendmihje për termoelektranat.

Shqetësim thelbësorë tjetër janë punësimi lokal si dhe kushtet e punës. Vendimi i Qeverisë që ta japë në menaxhim termocentralin ekzistues Kosova B, kompanisë së njejtë e cila do të fitojë kontratën për ndërtimin e termocentralit të ri është kundër interesave të punonjësve të tanishëm lokal. Termocentralet aktualisht menaxhohen nga ndermarrja publike KEK. Punonjësit frikësohen se privatizimi do të çojë në shkurtim të vendeve të punës, ulje të pagave si dhe krijimin e një situatë ku procedurat ligjore neglizhohen. Një vendim i tillë vetëm transferon monopolin aktual nga sektori publik në atë privat. Për më tepër, punëtorët të cilët do të mbeteshin pa vende pune, si pasojë e dekomisionimit të Kosovës A, janë të shqetësuar se kompania e re nuk do i punësojë ata, po që se një gjë e tillë do të ndodhë, Qeveria nuk do të ofrojë mundësi që ata të kompenzohen.

Sindikata e Pavarur e Energjetikes së Kosovës (SPEK) është veçanërisht e preokupuar me shkurtimin e vendeve të punës. Menaxhmenti aktual tashmë ka publikuar shifra të larta për shkurtime të vendeve të punës (eliminimi i së paku 1200 vendeve të punës), duke parashikuar përfshirjen e kompanive private në sektorin energjetik të Kosovës. Mungesa e fondeve të dedikuara për të adresuar çështjet sociale ka të ngjarë të shkaktojë trazira të konsiderueshme sociale. Disa punonjës nuk janë kandidatë të mirë për t'u ri-trajnuar duke pasur parasysh moshën e tyre, e po ashtu nuk është i mundshëm që ata të gjejnë punë jashtë profesioneve që aktualisht kanë. Si rrjedhojë, është e nevojshme që këta punëtorë të cilët do të humbin vendet e punës për shkak të projektit të ri të kenë mbështetje të mjaftueshme financiare.

Pasi Banka u përfshi në projekt në vitin 2006, ka realizuar disa takime me banorët e fshatrave të Obiliqit. Megjithatë ato takime nuk ishin të mjaftueshme për t'u siguruar se komuniteti janë të vetëdijshëm për ndikimet apo që brengat e tyre do të merreshin parasysh. Kompanitë konsulente të kontraktuara nga Banka për të mbajtur takime të komunitetit, Fondi për Zhvillim Komunitar dhe Management and Development Associates nuk kanë qenë në gjendje t'i përgjigjen pyetjeve dhe shqetësimeve të ngritura nga anëtarët e komunitetit. E tëra qfarë kompanitë kanë bërë është që të mbledhin shqetësimet e qytetarëve. Që nga konsultimet e fundit me komunitet, të mbajtura më shumë se 3 vite më parë, askush nuk i ka informuar ata se si Banka Botërore dhe Qeveria e Kosovës do i adresojnë shqetësimet dhe kërkesat e tyre.

Disa nga kërkesat dhe shqetësimet e ngritura nga qytetarët gjatë këtyre takimeve konsultative janë:

- *Ku do të ndërtohet termocentrali i ri?* Edhe më tutje banorët nuk kanë informata se ku do të jetë vendndodhja e termocentralit të ri. Qytetarët deri më tani kanë dëgjuar tri versione të vend-ndërtimit të mundshëm të termocentralit të ri: afër termocentralit Kosova A, në afërsi të termocentralit Kosova B dhe në fshatin Bivolak. Qytetarët kanë shpreh mendimin e tyre se termocentrali i ri do të duhej të ndërtohej në afërsi të Kosova B (ky opsion është mbështetur edhe nga Kuvendi Komunal i Obiliqit), mirëpo

nuk kanë marrë asnjë përgjigje nga BB dhe Qeveria e Kosovës dhe nuk e dinë nëse kërkesat e tyre janë marrë për bazë.

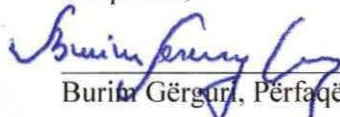
- *Si do të afektoj termocentrali i ri ujin e pijshëm për banorët?* Banorët kanë kërkuar që çfarëdo projekti nuk duhet të dëmtoj furnizimin me ujë, edhe ashtu të paktë. Një problem tjetër me të cilin përballen banorët e këtyre zonave është edhe cilësia jo e mirë e ujit të pijes i cili nxirret nga pusët.
- *Cili është plani për zhvendosjen e banorëve të fshatit Hade dhe banorëve të fshatrave për rreth?* Kur pritet të rifillojë procesi i zhvendosjes në fshatin Hade? Dhe kur do të kompensohen në mënyrë adekuate banorët e zhvendosur. Banorët të cilët presin zhvendosjen nga pronat e tyre kanë kundërshtuar zhvendosjen nga vendbanimi aktual në ndonjë vendbanim tjetër në komunën e Obiliqit ngase kanë frikë se prapë do ju duhet të zhvendosen, për shkak të përfshirjes së pjesës më të madhe të territorit të Komunës në zonë të interesit të veçantë ekonomik. Përveç kësaj, një raport nga INKOS, laborator i që mat nivelin e ndotjes në këtë zonë, gjeti se në disa fshatra përreth, si Dardhishte, kanë kushte mjedisore aq të varfra sa që nuk ka kushte bazike mjedisore për banorët të vazhdojnë të jetojnë aty. Pavarësisht ngritjes së këtyre shqetësimeve në mënyrë të vazhdueshme, nuk ka asnjë përgjigje në lidhje me zhvendosjen e banorëve të fshatit Dardhishte dhe fshatrave të tjera të ngjashme.
- *Si do të afektoj në punësim ndërtimi i termocentralit Kosova C (termocentrali i ri) dhe mbyllja e termocentralit Kosova A, dhe privatizimi i Kosovës B dhe C?* Do të ketë më shumë punësim apo do të largohen nga puna edhe punëtorët aktual? A do të përmirësohen kushtet e punës për punëtorët që do të mbesin? Kërkesat e banorëve në vazhdimësi kanë qenë që banorët e kësaj komune të kenë përparësi në punësim në termocentralet ekzistuese, termocentralin e ri dhe në mihje. Po ashtu, kërkohen programe të veçanta trajnimit për punonjës për afarizëm në fushën e projekteve të energjisë së pastër dhe ripërtërishme.
- *Çfarë teknologjie për zvogëlimin e ndikimit negativ në ambient dhe shëndet do të përdoret në termocentralin Kosova B dhe C?* Banorët kanë shprehur shqetësimet e vazhdueshme për mungesën e filtrave në termocentralet ekzistuese, kurse në rastet kur kanë ekzistuar këto filtra, gjatë natës është ndalur puna e tyre. Andaj, qytetarët kanë kërkuar që të krijohet një grup i pavarur mbikëqyrës, i përbërë nga përfaqësues të komuniteteve të banorëve të zonës, për të monitoruar punën e filtrave në termocentrale. Deri më sot, nuk ka pasur përgjigje në këto kërkesa.

Ne gjithashtu jemi të vetëdijshëm që zotëri Nezir Sinani dhe zotëri Krenar Gashi nga Instituti për Politika Zhvillimore (INDEP) kanë komunikuar shqetësime të shumta në lidhje me PATEL dhe KPP drejtë Bankës Botërore. INDEP bën pjesë në një koalicion që përfshinë organizatat joqeveritare të mëposhtme: Dokufest; Forumi për Iniciativa Qytetare (FIQ); Instituti GAP; Instituti i Prishtinës për Studime Politike (PIPS); Instituti për Politika Zhvillimore (INDEP); Internews Kosova; Kosovo 2.0; Iniciativa Rinore për të Drejtat e Njeriut (YIHR); Rrjeti Ballkanik i Gazetarisë Hulumtuese (BIRN); dhe Saferworld. Ne do të donim t'i inkorporojmë me referencë të gjitha shqetësimet e ngritura nga Z. Sinani, Z. Gashi dhe kolegët e tyre të koalicionit, duke përfshirë këto në vazhdim: ndikimet e ndotjes (ajri, uji, dhe toka) në ambient dhe shëndetin e njeriut; ndikimet në punëtorët, në veçanti në lidhje me të drejtat e marrëveshjes kolektive dhe të drejtën e asociimit, si dhe kushtet e sigurta të punës; përdorimi jo i qëndrueshëm i ujit; ndikimet sociale në bujqësi, ndikimet sociale në punësim

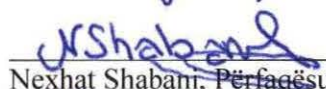
lokal; shqetësimet rreth zhvendosjes dhe rivendosjes së pavullnetshme; mungesa e konsiderimit të alternativave të mundshme; mungesa e konsiderimit të kostove shoqërore dhe mjedisore në ekonominë e projektit; si dhe mungesa e përgjithshme e dhënies së informacioneve dhe konsultimit.

Siç tregohet më lartë, si Qeveria e Kosovës ashtu edhe Banka Botërore kanë dështuar në administrimin e proceseve konsultative adekuate dhe transparente prej 2004 e tutje. Projekti i propozuar tashmë ka shkaktuar dëme të rëndësishme për banorët. Kështu, banorët e fshatrave të prekura nga projekti i propozuar, të listuar më poshtë, kërkojnë vëmendje të menjëhershme nga personeli i Bankës Botërore në lidhje me shqetësimet e ngritura më sipër.

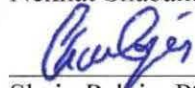
Sinqerisht,



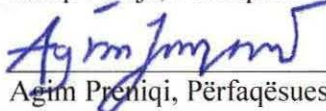
Burim Gërguri, Përfaqësues i Komunitetit për Dardhishte, ID 1014702144



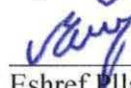
Nexhat Shabani, Përfaqësues i Komunitetit për Obiliqin, ID 1005913019



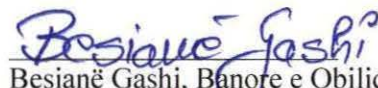
Shaip Paloja, Përfaqësues i Komunitetit për Cerna Vodica, ID 1013621981



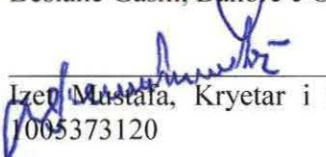
Agim Preniqi, Përfaqësues Parlamentar për Hade, ID 1005912217



Eshref Milana, Përfaqësues i Komunitetit për Lajthishtë/Sibofc, ID 1014706018



Besianë Gashi, Banore e Obiliqit, ID 117246332



Izet Mustafa, Kryetar i Sindikatës të Pavarur të Energjetikës të Kosovës (SPEK), ID 1005373120

Cc:

Z. Jan-Peter Olters

Drejtor i Bankës Botërore në Republikën e Kosovës

Z. Ted Ahlers

Drejtor i operimeve për Evropë dhe Azinë qendrore

Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

TO: Mr. Robert Zoellick (President of the World Bank)

CC: Inger Anderson (VP SDN), and the Board Members of the World Bank

Pristina, November 8, 2010

Dear Mr Zoellick,

Respected Board Members of the World Bank,

We are writing to express our concerns regarding vital major decisions on the energy sector in Kosovo.

The review of the energy sector was initiated while Kosovo was under the UN administration, and was continued by Kosovo authorities following the February 17, 2008 declaration of independence. However, throughout the entire process was critically lacking in transparency.

This lack of transparency was particularly acute in the process of the privatization of state owned and publicly owned enterprises, which in turn contributed to the institutional crisis in Kosovo, resulting in the collapse of the governing coalition this week. Consequently, Kosovo has no elected representatives that would have the support and the legitimacy to draft major policies and undertake crucial decisions.

We are very concerned that despite this, the Kosovo authorities will continue to make hasty and unaccountable decisions on the future of country's energy sector. Ownership and administration of the energy is linked to Kosovo's greatest natural resource – lignite coal – and the country's very future. Furthermore, it is directly linked to Kosovo's prosperity and its path towards the European Union. For this reason, a careful public review of all available options, with full environmental and social impact assessments, is absolutely essential.

We believe that any fast action by authorities with highly questionable legitimacy in a volatile political situation will hamper adequate consideration of alternative sources of energy, environmental impacts and the long-term plans and advisability of coal exploitation and use for energy generation.

Kosovo needs a development approach to the energy sector in accordance with the highest European Union standards, especially when it comes to sources of renewable energy. Thus we respectfully call for your support in ensuring fully transparent, accountable, and socially and environmentally sound procedures to evaluate Kosovo's energy pathways, carried out under the direction of legitimate authorities.

We are fully aware of the deep reorganization that the Kosovo energy sector must go through, with some parts functioning better under private ownership and some under public administration. However, we remain worried that in this political stalemate, any decisions would harm this poor economy even further. Kosovo needs legitimate authorities that would be able to make the best decisions for its people. We call upon you not to engage in any contractual agreements with the Kosovo Government, until the legitimate institutions are formed following the upcoming elections scheduled to take place on December 12, 2010.

We appreciate your attention to our concerns and we thank you in advance for your support.

Sincerely yours,

Representatives of the undersigned Kosovo civil society organisations:

Kosovar Institute for Policy Research and Development (KIPRED),

Institute for Advanced Studies (GAP),

Balkan Investigative Reporting Network (BIRN),

Forum for Civic Initiative (FCI),

Youth Initiative for Human Rights (YIHR),

Internews Kosova,

DokuFest,

Kosovo 2.0,

Prishtina Institute for Political Studies (PIPS),

International Crisis Group (ICG)

From: **Nezir Sinani** <nezir.sinani@kipred.net>
Date: Tue, May 31, 2011 at 1:41 PM
Subject: World Bank & Kosovo!
To: ssinclair@worldbank.org
Cc: Mgulati@worldbank.org, iandersen1@worldbank.org, Chad Dobson <cdobson@bicusa.org>, Aynabat Yaylymova <ayaylymova@bicusa.org>, dkammen@worldbank.org

Dear Mr. Sinclair,

I hope this e-mail finds you well. As already introduced, the Kosovar Civil Society has established a group that is dealing with developments of the energy field in Kosovo. As such, we are interested in a few things that are related to this field and involve the World Bank. Hopefully you will be able to guide us and/or provide us with the information we are looking for, and which is as follows:

1. As we know, the Technical Assistance Project (which we regard as PATEL) is running out of budget. We have learned that a request for the approval of an additional budget has been put up and that it involves a few new initiatives which relate to studies on alternatives. Could you please provide us with ToR for this request? We would also appreciate an information on the expected time frame related to the approval of this request.
2. As we have also learned, the World Bank is moving ahead with the new coal-based power plant project. For this reason, ToR for the Experts Panel we learned has been compiled. We would appreciate if you could provide the document itself and any other information related to this very important project for Kosovo.
3. We learned that there's an ongoing hydrological study being carried out and which involves the Ibar lake in the northern part of Kosovo. We would be very happy if we could receive ToR for the study that is being done and we are very interested to also see the report produced for the study itself (if and when it gets available).

I thank you in advance for your understanding and support.

Best regards,
Nezir

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Nezir SINANI

Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: [+381 38 227 778](tel:+38138227778)
Mobile: [+12026740024](tel:+12026740024)

<http://www.kipred.net>

Subject: Re: World Bank & Kosovo!
From: Nezir Sinani <nezir.sinani@kipred.net>
Date: Mon, 6 Jun 2011 11:47:09 -0400
To: ssinclair@worldbank.org
CC: Mgulati@worldbank.org, iandersen1@worldbank.org, Chad Dobson <cdobson@bicusa.org>, Aynabat Yaylymova <ayaylymova@bicusa.org>, dkammen@worldbank.org, Niranjali Amerasinghe <namerasinghe@ciel.org>, plallas@worldbank.org

Dear Mr. Sinclair,

I hope this email finds you well. In addition to the questions sent last week, we need some more information related to the work of the Technical Assistance Project team. We would appreciate if you could inform us if PATEL provided you with regular reports on their work and how the reporting was structured? We do also look forward to receive the report documents itself that PATEL has sent to WB, especially those related to the environmental and social issues and that were produced since 2006.

In addition, we would be very grateful if you could inform us on or/and provide with other studies on energy alternatives and general data (on wind, solar, geo-termal, hydro) for Kosovo that you have been using for the work until now.

I hope you will be able to provide answers on the questions sent last week as well (please see below).

Thank you for your understanding and support.

Regards,
Nezir

Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: +381 38 227 778
Mobile: +12026740024

<http://www.kipred.net>

Dear Mr. Sinclair,

I hope this e-mail finds you well. As already introduced, the Kosovar Civil Society has established a group that is dealing with developments of the energy field in Kosovo. As such, we are interested in a few things that are related to this field and involve the World Bank. Hopefully you will be able to guide us and/or provide us with the information we are looking for, and which is as follows:

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I thank you in advance for your understanding and support.

Best regards,
Nezir

This email has been scanned by the MessageLabs Email Security System.
For more information please visit <http://www.messagelabs.com/email>

From: Nezir Sinani [mailto:nezir.sinani@kipred.net]
Sent: Thursday, August 25, 2011 11:36 AM
To: jmbeer@mit.edu; Wladyslaw.Mielczarski@electricmarket.neostrada.pl; derek.taylor@cec.eu.int
Cc: khuber@worldbank.org; iandersen1@worldbank.org; tahlers@worldbank.org
Subject: Kosovo - Expert Panel meeting Kosovar CSOs!

Dear all,

I hope this e-mail finds you well! As I have not had the opportunity to introduce myself before to the members of the Expert Panel for the Kosovo project, my name is Nezir Sinani and I represent a group of ten Kosovar NGO's that follow energy projects in Kosovo. On behalf of my group, I wish you success in your work to screen the Kosovo project with the World Bank!

We have analyzed closely the ToR published for your work and our NGO has come across significant issues in this document. We find the information provided with this document is incomplete and incorrect in many parts of it. For this purpose, I am attaching all our comments and remarks related to the ToR to this e-mail. Our remarks are part of the comments on the side of the ToR document itself and also underlined in other parts of the text! An overview is provided in the first pages of the document. I am aware that tomorrow you have scheduled a meeting with our NGO coalition in Kosovo. In this meeting they will present to you all our remarks related to the project you are screening. There are many issues that we do believe need to be addressed and that relate to this project and we do look forward to your understanding and support when considering those.

I remain at your disposal for any additional questions you might have after reading our remarks and following your meeting tomorrow with my colleagues in Kosovo.

Thank you in advance for your understanding and support!

Warm regards,
Nezir

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Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: [+381 38 227 778](tel:+38138227778)
Mobile: [+12026740024](tel:+12026740024)

<http://www.kipred.net>

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Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
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World Bank Proposed Kosovo Lignite Power Project: Key Revisions to the Terms of Reference for the SFDCC Expert Panel

August 23, 2011

A review of the terms of reference (TOR) for the Strategic Framework on Development and Climate Change (SFDCC) Expert Panel assigned with assessing the World Bank proposed Kosovo Lignite Power Project reveals that several elements are missing, inadequate, or inaccurate and need to be revised or completed before the Expert Panel should commence review of the project. The following ten items are essential for the Panel to perform its task:

- 1. Ultimate Purpose of Panel and Climate Criteria** - The TOR fails to provide a fundamental explanation of the ultimate purpose of the Expert Panel and the guiding principles surrounding why WBG coal projects need to be screened against climate criteria in the first place. **The ultimate purpose of the climate criteria is to ensure that the WBG is putting forth the best possible project in terms of benefits to the poor and cleanest energy options (i.e., not simply cleaner than the existing, outdated coal technology) – to ensure WBG support for coal is only as a last resort.**
- 2. Sufficient Scope of Work** - The current SOW does not give the Expert Panel the freedom to reject the proposed project for non-compliance with any of the climate criteria (i.e., coal projects must comply with all six SFDCC criteria). It also implies that if there is a problem, the Panel needs to come up with a “practical” solution to fix the current project.
- 3. Accurate Kosovo Energy Profile** – The TOR does not provide a clear understanding of the power needs in Kosovo. In order to determine the optimal mix of technologies for a power project, it is essential for the Bank to include a breakdown of current demand, according to peak, non-peak, heat, etc. as well as the power capacity represented by other planned power generation projects coming on line and energy efficiency measures.
- 4. Intended End-users** - The TOR does not substantiate its claim for meeting SFDCC Criterion 1 that the project impact will be “significant increase in access to electricity and/or reliability of power supply for sustained economic growth and poverty reduction”. Furthermore, documents from the World Bank’s early assistance to the Kosovo power sector all indicate an intention of developing Kosovo’s lignite resources in large part to be exported. The decision to go forward with developing the purposed coal mine and coal thermal generation was made by the World Bank, UNMIK, and other donors well before the creation of the current government of Kosovo. The TOR needs to clearly define targeted end-users (e.g., domestic, regional grid, greater Europe) and provide assurances that targets will be met.
- 5. Alternatives to Fossil Fuel for Least-cost Analysis** - The TOR claims that the proposed coal project is the least cost option. However, the Bank could not have made that determination given the financial analysis only considered fossil fuel-based options for the project. There is no cost comparison to energy efficiency measures, cogeneration, imports from the regional grid/Albania or any renewable energy alternatives. Thus, the project does not meet SFDCC Criterion III or IV. New, SFDCC-fully compliant financial and economic

Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

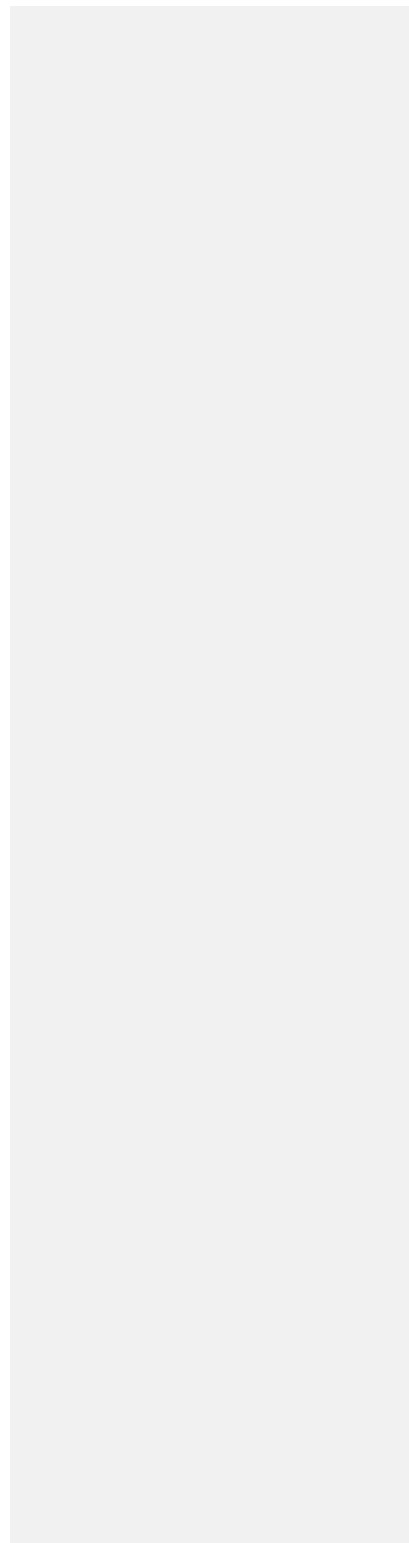
analyses need to be completed and publicly released as input to the Expert Panel's review and prior to the final Request for Proposal (RFP).

- 6. Comprehensive Life-cycle Cost Analysis** – The life cycle cost analysis for the proposed mine-mouth coal power plant does not consider costs associated with the coal mine operations, including mine closure and reclamation or fly ash dump costs. Moreover, the sensitivity analysis does not adequately reflect rising coal prices.
- 7. Adequate Accounting of Environmental Externalities** - The environmental externalities for the proposed mine-mouth coal plant do not include the significant costs associated with the new coal mine operation or from emissions of mercury or lead, which are a big concern for lignite combustion. Moreover, the TOR and economic analysis do not specify the SO_x and NO_x abatement technology that will be required. Thus, the project does not adequately meet SFDCC Criterion VI.
- 8. Resolved Technical and Commercial Losses** – Energy efficiency and conservation measures have not been implemented or adequately planned to address substantial technical losses in Kosovo's inefficient power distribution system (17% of gross production) or commercial losses due to non-payment/theft (30% of gross production). The Bank is largely counting on privatization to remedy these issues. However, the TOR does not provide specific details on what the Bank anticipates will be in the contract terms and how much of this gained energy efficiency can go to supply Kosovo's energy demand. Moreover, the Bank does not suggest any other energy efficiency or conservation alternatives, such as building insulation or compact florescent lights. The TOR does not provide a convincing case that the existing power generation is optimized through energy efficiency and conservation, SFDCC Criterion III.
- 9. Transparent and Tangible Assistance to Low Carbon Development** – The TOR mentions several studies/activities related to low-carbon energy sources, e.g., feed-in tariffs for hydropower and wind, but does not provide the findings, expected results, and any tangible progress made towards low carbon development. Moreover, the planned wind feasibility study and low carbon growth strategy for Kosovo should have been done as part of the Bank's decade-long energy sector assistance and served as input for the current purposed project/Expert Panel assessment. By failing to produce a Renewable Energy Options study promised in 2006¹, the Bank did not meet SFDCC Criterion II in good faith.
- 10. Local Stakeholder Input:** Input provided by local stakeholders should be a part of the Expert Panel's assessment. The LPTAP Appraisal 2006 states that "wide consultations with local institutions, donors, and other stakeholders, have been taken into account in the Project design." A list of who was consulted and the resulting input from the consultations on project design should be provided to the Panel. In addition, at least one local stakeholder meeting should be included in the Panel's visit to Kosovo.

¹ LPTAP 2006 Appraisal Report Procurement Plan.

Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

The rest of the document provides comments and background material related to the above ten elements directly in the text of the World Bank-provided TOR for the SFDCC Expert Panel. When possible, suggested replacement language is provided in track changes.



Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

**Energy Sector Unit
Europe and Central Asia Region
World Bank**

Kosovo: Kosovo Power Project

TERMS OF REFERENCE
for the
SFDCC Expert Panel

June 14, 2011

DESCRIPTION OF THE SCOPE OF WORK
SFDCC External Panel of Experts

Background

The World Bank Group's mission is to reduce poverty. According to the WBG's Strategic Framework on Development and Climate Change (SFDC), "Climate change has the potential to reverse the hard-earned development gains of the past decades, and impede the progress toward achieving the Millennium Development Goals...Developing countries and the poorest communities are likely to suffer earliest and the most. This is due to their geographical location, low incomes, and limited institutional capacity, as well as their greater reliance on climate-sensitive sectors such as agriculture."² **The ultimate purpose of the SFDC climate criteria and, hence, the Expert Panel, is to ensure that the WBG is putting forth the best possible project in terms of benefits to the poor and cleanest energy options (i.e., not simply cleaner than the existing, outdated coal technology) – to ensure WBG support for coal is only as a last resort.**

The WBG's SFDC directly stems from the request of the G8 (*G8 Gleneagles Communique*, July 2005) for the World Bank to take a leading role in financing the "transition to cleaner energy".³ As part of this request, the G8 Communique specified that, *inter alia*: The World Bank will "make the best use of existing resources and financing instruments and develop a framework for energy investment to accelerate the adoption of technologies which enable cleaner, more efficient energy production and use"; and "develop local commercial capacity to develop and finance cost-effective projects that promote energy efficiency and low-carbon energy sources" [emphasis added].

² The largest employer in Kosovo is the agriculture sector.

³ The SFDC was a follow up to the World Bank Group's Clean Energy Investment Framework, 2006.

Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

1. Coming out of post-conflict administration by the UN, Kosovo declared independence on February 17, 2008. However, its political stability and international recognition are not yet fully secured. By April 2011, Kosovo had been recognized by 75 countries. As a poor, post-conflict and fragile state, Kosovo is only eligible for International Development Association (IDA) credits and grants. With a GDP per capita of €1,760 it is one of the poorest countries in Europe without easy access to markets. Out of its population of about 2 million people, about 45% were living below the poverty line in 2007. Kosovo has the weakest employment record in Europe: a very high (45%) unemployment rate (76% for the 15-25 year old age group) and a low (29%) employment rate. Health outcomes are extremely low: according to 2007 UNDP data, Kosovo had the highest child and infant mortality rates and the lowest life expectancy (69 years) in Southeast Europe (SEE). Its unreliable power supply is a major impediment to private sector investment, and the associated substantial and continuing fiscal drain, crowds out priority social sector expenditures. Abundant good quality lignite is virtually the only domestic source of primary energy for base-load electricity production. To achieve energy supply reliability, Kosovo needs to replace its aging, unreliable, and highly polluting power plants. It must also urgently commence lignite production from a new mine since existing mines will be depleted in less than two years. The social and political costs of very high unemployment among a young population, caused in part by an unreliable and inadequate power supply and fiscally burdensome power sector, could be very high for Kosovo and the region.

Comment [A1]: This statement should be revisited/ revised once all renewable energy options have been added to the financial analysis and the costs of coal have been accurately accounted.

2. In July 2009, the Government of Kosovo articulated a five-pronged energy strategy comprising: (a) private sector investment in a new lignite-fired power generation project, (b) privatization of the electricity distribution and supply business, (c) private sector participation in rehabilitation and environmental upgrade of the Kosovo B Power Station (derated capacity of about 560 MW), (d) decommissioning of the Kosovo A Power Station by 2016-17, and (e) development of renewable resources (including small hydropower plants, wind, solar, biomass). The World Bank, in coordination with other development partners such as the European Commission and USAID, is supporting this strategy.

3. The current electricity annual demand in Kosovo is about 5,200 GWh, a high proportion of which is being met by Kosovo A (1,229 GWh/year)⁴ and B (4,319 GWh/year)⁵. Both power plants are old (Kosovo A more than 40 years and Kosovo B 25 years) and poorly maintained, resulting in unreliable power supply. This demand is expected to rise to about 7,400 GWh by 2020. Kosovo is also connected with Serbia, Montenegro, and Macedonia through a 400-kV transmission line and has started the construction of an additional 400-kV transmission line to Albania. This \$X investment to improve exchanges of power with Albania is expected to result in X GWh/year for Kosovo consumption. There have been recent discussions between Kosovar and Albanian system operators to operate as a single control area. Kosovo A is the largest point source of pollution in the region and having outlived its technically and economically useful life needs to be shut down. After the decommissioning of Kosovo A in about 2016-17, there will be a considerable supply shortfall (1,229 GWh/year)⁶. New generation is needed to address this shortage of supply and a portion of the rising demand by adding about 600 MW of new capacity (representing 4,319 GWh/year)⁷, with more generation additions in future years if demand grows as expected. [The Bank needs to provide an accurate energy profile for Kosovo. Electricity demand needs to be broken down according to peak

Comment [A2]: The Bank needs to provide the assumptions for this projected electricity demand. How much is accounted for by heat demand? By the lack of insulation in residential buildings?

Comment [A3]: In May 2010, the Kosovo government asked the Ministry of Energy and Mines and the Ministry of Economy and Finance to establish and instruct a working group to review and revise the Energy Market Model. This Model should be provided to the Expert Panel and the WB should provide it to the public. Local civil society has requested several times, but have yet to receive it.

⁴ Estimate based on: 165 MW * 0.85 (capacity factor) * 8760 hours/year * 1 GW/1000 MW

⁵ Estimate based on: 580 MW * 0.85 (capacity factor) * 8760 hours/year * 1 GW/1000 MW

⁶ This estimate represents the available annual generation capacity of Kosovo A (i.e., 165 MW) according to the LPTAP Appraisal, 2006. Annex 1 lists an assumption of 390 MW of generation capacity for Kosovo A. The Bank needs to confirm what the actual figure is for current generation.

⁷ Estimate based on: 580 MW * 0.85 (capacity factor) * 8760 hours/year * 1 GW/1000 MW

Kosovar Institute for Policy Research and Development (KIPRED), Institute for Advanced Studies (GAP), Balkan Investigative Reporting Network (BIRN), Forum for Civic Initiative (FCI) Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

demand, non-peak demand, heat demand, etc.⁸ to gain an understanding of the types of energy sources that can fulfill Kosovo's specific needs. The Bank needs to provide the Panel with a timeline for when the planned hydropower, wind, and biomass projects will come on line and how much additional generation capacity they represent. The Government has studied two configurations in depth: 1x500 MW and 2x300 MW.

4. The decision between the two configurations was taken taking into account system stability and reliability, comparative plant efficiencies, relative leveled costs and overall CO₂ emissions. It was concluded that a **2x300 MW configuration** would offer significant operational flexibility and lifetime reliability advantages over the larger 500-MW units, and are a more suitable addition to the Kosovo

5. Kosovo is also a participant in the Energy Community of South East Europe (ECSEE) treaty that establishes a regional electricity market governed according to EU directives.⁹ Through United Nations Interim Mission in Kosovo (UNMIK) as a signatory to the treaty, **Kosovo is committed to meet** environmental standards of thermal power plants and mining, and mitigate social impacts, as outlined by various **EU directives**. In addition, the WB's LPTAP Appraisal (2006) states that "Kosovo's participation in ECSEE is expected to create significant opportunities for Kosovo to use its abundant and competitive energy and mining resources to meet growing energy demand in the regional market." In the event that the World Bank Group provides the envisaged financial assistance, the investments will have to **comply with the World Bank policies** on environmental and social safeguards.

6. The recently approved Energy Strategy of Kosovo (2009-2018) is built upon a number of analytical reports funded by the World Bank and other donors in the past ten years. In 2006, the Bank had intended to fund a Renewable Energy Options Study in order to start examining alternative energy projects early enough to influence the current investment decision. However, this study was not completed due to xxxxx. The decision to go forward with developing the purposed coal mine and coal thermal generation was made by the World Bank, UNMIK, and other donors well before the creation of the current government of Kosovo. For example, "A regional review¹⁰ of the energy sector concluded that the development of lignite mining in Kosovo for power generation and sale to the regional market is part of the least-cost solution to close the emerging gap in generation capacity in Southeast Europe. The concern over energy security is increasing the desire for diversification of energy supply across Europe, placing greater emphasis on lignite resources. By developing its power sector, Kosovo can also meet its own demand and improve stability of supply, thereby removing a significant barrier to private sector development currently constrained by rolling blackouts."

Initially, the World Bank funded an Energy Sector Study leading to preparation of a White Paper on Kosovo's energy sector, adopted by the Government of Kosovo as its first Energy Strategy after the conflict, and

⁸ The LPTAP Appraisal (2006) indicates that Kosovo has surplus power during non-peaking time. Power shortages occurred for peaking power and were most pronounced in winter because of heating needs. Such a situation highlights the need to have a completed assessment of the potential for both cogeneration and renewable sources.

⁹ The Athens Memorandum of December 2003 established the ECSEE to create a regional energy market. In October 2005, the ECSEE Treaty was signed by Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro and UNMIK on behalf of Kosovo (collectively called **Regional Members**); Austria, Greece, Hungary, Italy, and Slovenia (**Participants**); and Moldova as an **Observer**. Turkey, though a signatory of the Athens Memorandum, has opted not to sign the Treaty until some issues related to climate change obligations are sorted out.

¹⁰ LPTAP Appraisal, 2006 - Financial Aspects: The GIS objective was to assist the European Commission, IFIs, and donors to identify an indicative priority list of least-cost investments in power generation and related infrastructure from a regional perspective, i.e., in line with the objectives of ECSEE. This study identified a new lignite-based plant in Kosovo as part of the least cost plan in terms of new capacity additions. [See "Regional Balkans Infrastructure Study - Electricity (REBIS) and Generation Investment Study (GIS)", December 2004 by PwC Consortium.]

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periodically updated and revised. The Government strategy aims to: (a) reduce CO₂ emissions per MWh produced, (b) significantly reduce local air pollution, (c) manage end-user demand and create an enabling environment for energy efficiency by instilling payment discipline, and (d) facilitate private sector investment in generation as well as in other sectors of the economy. To that end, the Government has completed a technical analysis of the various technology options for the new lignite-fired thermal power plant. Also, with the help of IDA and Dutch grant funds, the Government has already started environmental encapsulation and clean-up of the old ash dump and a long-abandoned coal gasification plant at Kosovo A. In addition, the EC commissioned a detailed study on Kosovo A which reconfirmed that Kosovo A is a highly inefficient and polluting power plant at the end of its life cycle and that its immediate decommissioning would be advisable. In support of Government's energy strategy, Energy Regulatory Office with support from the World Bank completed an assessment of regulatory and legal framework, and feed-in-tariff, for incentivizing the development of renewable energy sources. The cost of wind and hydropower after the planned Feed-In Tariff policy is applied will be X /kWh for wind and X/kWh for hydropower. The FIT policy is expected to result in X GWh/year of electricity by 2018.

7. A pre-feasibility study was completed for the 300 MW Zhur Hydroelectric Power Plant, while the Government is currently starting a competitive selection process for private sector participation in construction of eighteen small hydro power plants. The planned timeline for the hydropower projects is xxxxx. It is expected that X GWh/year additional capacity will be available to Kosovo by 2020. Going forward, with additional financing from the Bank, the Government proposes to pursue several low-carbon growth opportunities. It aims to create a **low-carbon growth strategy** that would include building an energy sector **greenhouse gas (GHG) inventory**; a study on the potential for **wind power** generation in Kosovo [Note: The wind study is critical as input to the current investment decision and should be completed prior to the Expert Panel's assessment and prior to the final RFP. It should also look at the potential for the coupling of wind and hydropower as a base load option.]; a **carbon capture and storage (CCS)** feasibility study for certain geologic formations in Kosovo; and an **energy efficiency** study.

World Bank Group involvement

8. For the past few years, the World Bank has been active in Kosovo energy sector through the **Lignite Power Technical Assistance Project (LPTAP)**, whose objectives are: (i) to help the Government strengthen the enabling policy, legal, and regulatory frameworks conducive to new investments in the energy sector; and (ii) to assist the Government in attracting qualified private investors to develop lignite mines and build new capacity for lignite thermal power generation guided by high standards of environmental and social sustainability. To achieve these objectives, LPTAP is financing, *inter alia*, the preparation of the Kosovo Power Project (known in Kosovo as the —Kosova e Re Project|), including the Transaction Advisor (PricewaterhouseCoopers), Legal Advisor (Hunton & Williams), and Safeguards Advisor (ERM Italia). While the work of the Transaction and Legal Advisors are ongoing, the Safeguard Advisor has completed its work with delivery of a *Strategic Environmental and Social Assessment (SESA)*.

9. Other development partners are also active in the Kosovo energy sector: **USAID** has funded studies for assessing the technical and economic feasibility of rehabilitation of Kosovo B, while the **European Commission** has funded a feasibility study to assess decommissioning of Kosovo A thermal power plant. **KfW** has invested in mining equipment and substations, in addition to the 400-kV transmission system with Albania, and is leading the EC investigation of converting Kosovo B into a combined heat and power plant. [Given the very high heat demand load on the Kosovo power system (estimated at over 30% of gross production), the cogeneration conversion of Kosovo B study must be completed for consideration of the current investment decision. The Expert Panel TOR must be

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updated with this information and how it ultimately affects overall electricity demand in Kosovo.] Through another IDA Grant, the Bank is helping in environmental clean-up of Kosovo A ash dump, and an old, abandoned, coal gasification plant.

10. The Government has invited private sector investors to invest in the —**Kosovo Power Project**” that includes:

- (a) build-own-operate a new lignite-fired 2x300 MW power plant called **KRPP**;
- (b) rehabilitate-own- [or –lease-] -operate the 2x340 (derated 2x280) MW **Kosovo B** power plant; and
- (c) build-own-operate-transfer a new lignite mine called the **Sibovc South Lignite Mine**. KRPP will be an extension of the Kosovo B site and have some common facilities.

Comment [A4]: From the RFP, the Bank needs to provide technology features, including main generation technology and required SOx and NOx abatement.

11. In parallel, the Government has also launched privatization of the Kosovo Electricity Distribution and Supply company (**KEDS**) that will help improve operational and financial efficiency, demand side management, and reduce losses. [The privatization process is expected to reduce losses and improve efficiency by X through the following specific measures: xxxxxxxx. This will result in X GWh/year additional electricity supply for Kosovo by 2018. IFC has been engaged as Transaction Advisor for the privatization of KEDS.

12. The Government intends to request that a portion of its IDA lending envelope be allocated for an **IDA partial risk guarantee (PRG) for the “Kosovo Power Project”** described in paragraph 10. MIGA and IFC are also expected to participate. The Government may also request, if necessary, a second IDA partial risk guarantee to support privatization of KEDS if so required by the private investors.

13. The Government has prequalified four international consortiums to bid for the construction and operation of the Kosovo Power Project. The winning bid will be chosen through a two-stage transparent bidding process. The advisory team, with input from the inter-ministerial **Project Steering Committee (PSC)**, has finalized the Draft RFP that includes key technical, financial, and legal parameters of the transaction. The Draft RFP was issued to the prequalified bidders in August 2010 to obtain their comments which have been since received. The Final RFP, revised with due consideration to the bidders’ comments, is expected to be issued by August 2011, and the final bids are expected to be evaluated in the first quarter of 2012. The selected investor will be required to submit environmental management plans for the power plants and the lignite mine, and a mine opening plan, to the relevant regulatory authorities in Kosovo. These documents will also have to be submitted to the Bank by the investor before financial support is approved by the Bank.

Comment [A5]: This date needs to be pushed back to allow for the completion of the cogeneration study, the wind feasibility study, and to complete sufficient financial analysis with energy efficiency and renewable energy alternatives.

SFDCC Expert Panel

14. *Strategic Framework For Development and Climate Change (2008)* (SFDCC) provides the World Bank Group policy on participation in coal-based power generation projects. The SFDCC outlines the following criteria based on which the World Bank Group could support a particular coal project:

- (i) there is a demonstrated developmental impact of the project including improving overall energy security, reducing power shortage, or access for the poor;
- (ii) assistance is being provided to identify and prepare low-carbon projects;
- (iii) energy sources are optimized, looking at the possibility of meeting the country’s needs through energy efficiency (both supply and demand) and conservation;

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- (iv) after full consideration of viable alternatives to the least cost (including environmental externalities) options, and when the additional financing from donors for their incremental cost is not available;
- (v) coal projects will be designed to use the best appropriate available technology to allow for high efficiency and, therefore, lower GHG emissions intensity; and
- (vi) an approach to incorporate environmental externalities in project analysis will be developed.

15. These criteria are applicable for new coal-based electricity generation facilities, and rehabilitation and modernization of existing coal power plants. However, the rehabilitation and modernization projects are excluded from complying with criteria (i) and (v) in cases where rehabilitation projects result in reduction in lifecycle GHG emissions relative to the relevant counterfactual.

16. In line with the above, *Operational Guidance for World Bank Group Staff on Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change* (March 2010), referred to herein as the Operational Guidance, necessitates the project team to prepare an assessment of project compliance with the six SFDC criteria following the Operational Guidance methodology. Furthermore, the Operational Guidance also requires the engagement of an **External Expert Panel** to evaluate the proposed project's compliance with the screening criteria. The Panel will include three experts in the fields of (a) power systems planning and economics, (b) energy policy including evaluation of low-carbon options for the energy sector, and (c) power technologies. One of the members will be appointed as the Panel Chair.

17. **The ultimate purpose of the SFDC climate criteria and, hence, the Expert Panel, is to ensure that the WBG is putting forth the best possible project in terms of benefits to the poor and cleanest energy options (i.e., not simply cleaner than the existing, outdated coal technology) – to ensure WBG support for coal is only as a last resort.** The objective of the Panel is to (i) review the concept for the proposed Kosovo Power Project, and (ii) assess the compliance of the Kosovo Power Project with the six screening criteria of the SFDC. When assessing whether the proposed project has passed the screening criteria, the Panel will be guided by the Operational Guidance, and the documents available in **Annex 1**, which includes the project team's assessment of the application the SFDC criteria to the Kosovo Power Project, and the large amount of analytical work listed in **Annex 2**.

18. The World Bank will appoint each of the Experts as Short-Term Consultants to the Bank for the provision of the assignment. The appointment of each member of the Panel will expire upon resignation, replacement for due cause, or completion of these Terms of Reference. Subject to the Budget approved by the Bank, the Chairperson will have the authority to appoint short-term specialists, subject to the agreement of the Bank and with supplemental funding as may be required, for specific assignments.

19. These Terms of Reference of the Panel, along with the names and resumes of the Panel members, will be made available to the public on the World Bank website.

Scope of work

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20. The “assignment” of the Panel is to review the Kosovo Power Project (described at paragraph 10) according to the six SFDCC screening criteria, prepare two written reports, and thereby advise the World Bank Group whether the Kosovo Power Project complies with the SFDCC criteria and specifically meets the requirements of the Operational Guidance, including the set of monitoring indicators. The Panel will base its review on available documents and local stakeholder input, including inter alia, **Annex 1** and those listed in **Annex 2**. The Bank will provide these documents and others, as requested, on a timely basis.

21. **Phase One.** The Panel will prepare a short Phase One Report to assess whether the project complies with the six SFDCC criteria. The Panel would also assess the consistency between the specifications in the Draft RFP and the best appropriate available technology criterion. The assignment may include one field trip to Kosovo of about 3-5 days in-country. The Coordinator will assist with arranging meetings in Kosovo.

22. **Phase Two.** Phase Two of the assignment relates to the review of the proposal of the winning bidder as negotiated with the government. The Panel will review any modifications to the technical specifications or the technology offered by the selected bidder in their proposal, and assesses compliance with the SFDCC best appropriate available technology criterion. Phase Two is expected to commence after a successful bidder is selected and ratified, during the project contract finalization period and be completed before presentation of the proposed IDA PRG to the World Bank management and the Board of Executive Directors. The Initial budget is indicated at paragraph 36.

23. The Coordinator will arrange for internal Bank experts to answer questions by telephone, as reasonably requested.

24. In the event that the Panel concludes that has reservations about how some criteria have been applied the proposed project is in non-compliance with any of the six SFDCC criteria, the Expert Panel may reject the proposed project fully or in part due to non-compliance with any of the six SFDCC criteria. Furthermore, when possible, the Panel should provide recommendations on alternatives to the project/project components that would fully comply with the SFDCC criteria.

it would provide practical and viable recommendations to the Bank to make this project consistent with the objectives of the SFDCC.

Deliverables

25. **Phase One Report** (about 15-20 pages) will be prepared by the Panel assessing whether the project complies with the six SFDCC criteria based on the methodology provided in the Operational Guidance. The report will also assess the consistency between the specifications in the Draft RFP and best appropriate available technology criterion. [The Phase One Report will be due one month after appointment of the Expert Panel and before the Final RFP is issued.]

26. The **Phase Two Report** of the Panel will be a concise report reviewing any modifications to the technical specifications or the technology offered by the selected bidder in their proposal, and assessing compliance with the SFDCC best appropriate available technology criterion. The work of the Panel is expected to be completed within two months (see paragraph 36 for Initial Budget) from the start of Phase Two. However, the work of the Panel may be extended to review any modifications that may be made during negotiations of the project agreements. Therefore, the Panel may be called for further review up until the time of approval of the proposed IDA PRG by the Bank’s Board of Executive Directors.

Comment [A6]: The Panel needs to be given one month after receiving the cogeneration study, the wind study, and the improved financial analysis, including financial analysis of energy efficiency and renewable energy alternatives, sufficient life-cycle cost analysis, and adequate accounting for environmental externalities (see comments in Annex 1).

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[Note the last six sections of the TOR have no additional comments. Comments continue in Annex 1]

- Procedure for submission of reports
- Panel mandate
- Expert not to be engaged in certain activities
- Confidentiality
- Administration
- Remuneration and Reimbursables

ANNEX 1—SFDCC Criteria for Screening Coal-Based Power Projects

General Assumptions:

- 1) Energy Demand forecast is based on the “medium growth” scenario as outlined in the Energy Strategy of the Republic of Kosovo for the period 2009-2018.
- 2) Funding is available for various components of the project funded by other donors.
- 3) Installation of new rotors etc in 2010-11 at Kosovo B, improving output from 260 MW to 335 MW, implementation of a life extension through 2030 or later.
- 4) KRPP is completed, and adds 580 MW (net) of base-load capacity or 4,319 GWh/year to Kosovo Power System, on schedule in 2016-2017.
- 5) Kosovo A (390 MW) is decommissioned by 2017.
- 6) KEDS is privatized and achieves improvements in its operational and financial performance, through the following specific measures: xxxxxxx. This will result in X GWh/year additional electricity supply for Kosovo by 2018.

Comment [A7]: The Bank should provide the assumptions of this projected growth, including how much is based on heat demand, accounting for the lack of insulated residential buildings that could be remedied through alternative measures.

Comment [A8]: The LPTAP Appraisal, 2006 states that: “Net available thermal generation capacity is 780 MW, comprising 165 MW of Kosovo A (between 30 and 45 years old) and 580 MW of Kosovo B (about 20 years old).” Please explain why the TOR generation figure does not match up?

Comment [A9]: LPTAP Appraisal, 2006 states that: “Net available thermal generation capacity is 780 MW, comprising 165 MW of Kosovo A (between 30 and 45 years old) and 580 MW of Kosovo B (about 20 years old).” Please explain why the TOR generation figure for Kosovo A does not match up?

Criteria and Impacts	Description	Quantitative Indicators

<p>(i) Criterion: <i>There is demonstrated developmental impact of the project, including improving overall energy security, reducing power shortage, or access for the poor</i></p> <p>Impact: significant increase in access to electricity and/or reliability of power supply for sustained economic growth and poverty reduction</p>	<p>Reducing power shortages. The proposed Kosovo e Re Project will make a substantial improvement in overall power supply and reliability by replacing and supplementing the highly polluting old units of Kosovo A. Provided there is also progress on billing and collections (largely being managed under a USAID program), the current load shedding regime could be reduced or ended. Timely opening of the new Sibovc South Lignite combined with improved exchanges of power with neighboring networks such as the one from Albania, which is largely hydro-power based and therefore highly complementary to Kosovo's lignite-based system.</p> <p><u>The decommissioning of Kosovo A will result in the loss of 1,229 GWh/year.</u> <u>The new KRPP plant will result in 4,319 GWh/year.</u> <u>Expected progress on collections will result in X% reduction in</u></p>	<p>Reliability of Power Supply:</p> <ul style="list-style-type: none"> o The gap between <u>unmet electricity demand and generation was 477 GWh₂ in 2009</u>. The medium growth demand scenarios forecasts that electricity demand would rise to about <u>7,000 GWh in 2018</u>. The project is expected to fulfill this demand after accounting for the loss of generation capacity due to the decommissioning of Kosovo A.⁴ o Demand of about 9 million tonnes of lignite from new mine from 2012. The new mine is expected to supply the required lignite to maintain generation. <p>Figure 1. Lignite demand forecast, 2006 -2024 [see graph in original TOR]</p> <p>Addition of 580 MW (net) of base-load capacity to the system by KRPP by end-2017.</p> <ul style="list-style-type: none"> o Improvement in the perceived business climate in Kosovo: Currently, 9 out of 10 firms cite electricity supply as a constraint to doing business.⁶ <p>Access to electricity: Maintenance of 98% or higher level of reticulation by KEDS. <u>How does this ensure increased access to electricity for Kosovo consumers? Specifically the poor?</u></p> <p><u>The Bank needs to provide the following information on intended users: Of the 4,319 GWh from the new KRPP plant, X GWh will be targeted for X domestic consumers? How much is intended for the regional grid/greater Europe? How will these targeted outcomes be monitored?</u></p> <p>Energy Security: Current generation plants are unreliable.</p> <ul style="list-style-type: none"> o Kosovo B1 in 2009 had 33 outages, 19 of them were system failures and 14 disconnections. It underwent repair for 40 days, there were also 2 additional repairs for nine days each. Unit B2 had 14 outages, of which 10 were disconnections and 4 system failures. It underwent repair for 40 days and had 2 additional repairs for nine days each⁷. The rehabilitation of Kosovo B will significantly reduce outages and failures.
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Comment [A10]: What are the details surrounding the unmet demand? Was the unmet demand, peak demand? Was the unmet demand mainly during winter for heating? Could it be supplied by the planned 300 MW hydropower and 100 MW wind in combination with cogeneration and energy efficiency improvements?

Comment [A11]: What are the assumptions behind this projections? How much is related to heat demand?

Comment [A12]: WB LPTAP Appraisal, 2006: "For transmission interconnection, recent studies have confirmed the availability of capacity to transmit about 600 MW of additional power from Kosovo to the southern parts of the ECSEE network. ... recent reconnection of the power system of the South East Europe Region, including Kosovo, to the main European power system operated by UCTE."

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	<p><u>commercial losses or X GWh of supply (Note: not part of the proposed investment).</u> <u>Power exchanges with Albania could reach X GWh/year (Note: not part of the proposed investment).</u></p> <p><u>If Kosovo B were converted to a combine heat electricity generation plant, this measure would add additional X GWh/year to Kosovo's supply.</u></p> <p><u>The planned hydropower, wind, geothermal, and solar hot water heaters will add X GWh/year by 2020.</u></p> <p><u>Planned energy efficiency measures will add X GWh/year by 2020.</u></p>	<p><u>With privatization plans, how is domestic supply guaranteed? How will the price of domestic electricity be affected? Are there any stipulations on the investors to supply domestic consumers first? Are there any provisions to ensure access for poor communities?</u></p> <p>o From a net exporter in 2000 Kosovo became an importer of electricity – importing 12.6% of its total consumption.⁸ <u>Investment in the 400 kV line Kosovo–Albania is meant to promote power transfers between the two countries, which may result in Kosovo importing a percentage of its domestic needs.</u></p>
Criteria and Impacts	Description	Quantitative Indicators
<p>(ii) <i>Criterion: Assistance is being provided to identify and prepare low-carbon projects</i></p> <p>Impact: identification and possible support to Renewable Energy (RE), Energy Efficiency (EE), and other low-carbon interventions, projects, and</p>	<p>Low-carbon projects. Kosovo has limited low-carbon electricity generation opportunities. The Government is in the process of looking for private investors in the Zhur hydroelectric project, for which a pre-feasibility study was completed under LPTAP.</p> <p>The Gazivoda pumped storage hydroelectric scheme needs to be progressed once security situation improves in the northern part of the country.</p> <p>Work on a PPIAF (Public-Private Infrastructure Advisory Facility)</p>	<p><input type="checkbox"/> Renewable energy:</p> <p>o IDA funded a preparation study for the Zhur Hydro Power Plant (May 2009). The objective of the study was to prepare a pre-feasibility study and a preliminary Environmental and Social Impact Assessment. <u>What will be the impact on power generation capacity in the country, How many GWh by when? How does it change the financial analysis for proposed project?</u></p> <p>o The Danish development agency has funded a study of potential for developing small hydropower plants in Kosovo. The study estimates a potential of 63 MW.⁹ <u>What is the investment plan to get these plants on line by 2020?</u></p> <p>o Preparation of a wind feasibility study (in cooperation with work by REPIC/AUK). This work is ongoing; IDA proposes to supplement the project with</p>

Comment [A13]: This statement can not be made without the completion of the cogeneration study, energy efficiency alternatives analysis, providing the results of the hydropower studies, geothermal feasibility study.

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<p>policies, and identification of associated reductions in GHG emissions, exploiting the synergies between Bank/IFC/MIGA policy dialogue and action plans</p>	<p>funded study to help Energy Regulatory Office implement “Feed-in” tariffs for renewable was completed recently.</p> <p>In addition, Kosovo also exchanges off-peak thermal power with Albania in return for Albania’s hydropower. The volume of power exchange between them would further increase on completion of construction of a 400 kV transmission interconnection between Albania and Kosovo. The Bank had funded a feasibility study and KfW is financing construction of this transmission interconnection.</p> <p>The Bank proposes to support a number of initiatives, some in cooperation with other donors, to promote a longer term strategy of reduction in carbon dioxide intensity.</p> <p>The Government’s Energy Strategy of Kosovo (September 2009) includes a framework and indicative targets for Energy Efficiency and Renewable Energy.</p>	<p>funding for an expanded wind survey database. IDA-funded study is proposed to begin in early 2011 after approval of additional financing for LPTAP and complete in six months. The Energy Regulatory Office (ERO) Board has recently issued a preliminary authorization to the “Kosova Ter. Windparkcompany” to develop wind energy generation capacities of 100 MW. <u>The wind study is critical as input to the current investment decision and should be completed prior to the Expert Panel’s assessment and prior to the final RFP. It should also look at the potential for the coupling of wind and hydropower as a base load option.</u> <u>When is the 100 MW wind power coming on line?</u></p> <ul style="list-style-type: none"> o ERO has adopted “feed-in” tariffs for small hydropower and wind farms. <u>The cost of wind and hydropower after the planned Feed-In Tariff policy is applied will be X /kWh for wind and X/kWh for hydropower. The FIT policy is expected to result in X GWh/year of electricity by 2018.</u> o The Government has set as a target for Kosovo to reach a renewable share of 7% by 2016.¹⁰ <u>How does the new coal generation project coming on-line in 2017 impact this target?</u> <p><input type="checkbox"/> Energy efficiency:</p> <ul style="list-style-type: none"> o See criterion (iii). <p><input type="checkbox"/> Other:</p> <ul style="list-style-type: none"> o Preparation of a greenhouse gas inventory for the energy sector. This study will necessarily precede the preparation of a low-carbon growth strategy. An IDA-funded study is proposed to begin after approval of additional financing for LPTAP and complete in six months. o Preparation of a feasibility study for carbon capture and storage (CCS) in Kosovo. This study will be funded by the CCS Trust Fund for completion in 2011. o Preparation of a low-carbon growth strategy for the energy sector in Kosovo. Building on the projects and studies mentioned above, work on the proposed low-carbon growth strategy is slated to begin in mid-2011 and complete by year-end 2011 under IDA
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Comment [A14]: The World Bank should explain to the Panel why the World Bank did not conduct the Wind, cogeneration, and low-carbon growth strategy studies as part of their technical assistance feeding into the proposed project. The Bank has been providing technical assistance on the energy sector in Kosovo for a decade. In fact, LPTAP 2006 stipulated assistance on renewable energy, cogeneration, and energy efficiency (see footnote)¹. For example, the LPTAP 2006 Appraisal Report Procurement Plan lists a Renewable Energy Options Study. The Expert Panel needs to be provided with this study or an explanation for why the Bank did not complete this study and the other LPTAP renewable energy, cogeneration, and energy efficiency activities.

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		<p>funding.</p> <ul style="list-style-type: none"> o Capacity building in the Ministry of Environment and Spatial Planning. IDA-funded program to enhance the skills of Government to evaluate and monitor environmentally and socially important projects. Proposed to begin in 2011. <p><u>The World Bank should explain to the Panel why the World Bank did not conduct these studies as part of their technical assistance feeding into the proposed project. The Bank has been providing technical assistance on the energy sector in Kosovo for a decade. In fact, LPTAP 2006 stipulated assistance on renewable energy, cogeneration, and energy efficiency (see footnote)¹¹. For example, the LPTAP 2006 Appraisal Report Procurement Plan lists a Renewable Energy Options Study. The Expert Panel needs to be provided with this study or an explanation for why the Bank did not complete this study as well as the other LPTAP renewable energy, cogeneration, and energy efficiency activities.</u></p>
Criteria and Impacts	Description	Quantitative Indicators

¹¹ (LPTAP Appraisal 2006) Subcomponent 3 -Renewable Energy, Cogeneration and Energy Efficiency. The objective of this subcomponent is to help MEM develop policies and strategies to promote renewable energy, cogeneration and energy efficiency in Kosovo. This will also examine development options for the two candidate hydropower plants, namely, the Zhur and Ujeman hydropower plants. Renewable Energy (LPTAP Appraisal 2006): The heat market in Kosovo, which accounts for a large part of the energy consumption of the population, will be carefully examined, and a strategy for the heat sector will be defined during 2006 and adopted by mid-2007. The potential for renewable energy will also be studied and policies and financial instruments that support renewable energy development will be adopted. The hydro potential, amongst other options, will be examined closely in this regard. Across the energy sector, a suitable portfolio standard (compatible with EU standards) will be developed and adapted, to gradually increase the proportion of renewable energy sources in Kosovo's electricity generation.

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<p>(iii) Criterion: <i>Energy sources are optimized, looking at the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation</i></p> <p>Impact: evaluation of existing plans on future energy requirements by incorporating EE (both demand and supply) and energy conservation interventions and quantifying their impacts. If not satisfactory, help in their establishment and implementation to facilitate a full cost economic comparison of supply and demand resources to meet energy needs capitalizing on the synergies between Bank/IFC/MIGA policy dialogue and action plans.</p>	<p>Improved energy efficiency: ⊕ development of an initial Energy and Energy Efficiency Database for Kosovo, a survey of energy efficiency in public sector buildings and an energy efficiency education program by the American University in Kosovo; (ii) ongoing through a management contract funded by USAID (a) a commercial loss reduction program, inter alia through improved metering and billing and collection programs; and (b) improved demand side management practices initially focusing on large industrial and commercial consumers ; (iii) through loss reduction and efficiency improvement targets to be set as part of multi-year tariff compact with to-be-privatized KEDS (IFC hired by the Government as Transaction Advisor)</p> <p>(iv) supply-side efficiency through improved management practices at Kosovo B and KRPP and at KEDS; (v) EC, GTZ is leading an energy efficiency capacity building program; World Bank Institute would supplement this effort through a regional program.</p> <p>KfW is examining the feasibility of potential cogeneration of heat and power at Kosovo B and/or KRPP to provide steam for the Prishtina district heating</p>	<p>□ Energy efficiency:</p> <ul style="list-style-type: none"> ○ Completion of the KfW-funded feasibility study on cogeneration for district heating in Prishtina.. Incorporation of the results of the feasibility study in the Final RFP for the Kosova e Re Project. ○ Completion of the Energy and Energy Efficiency Database as designed by American University of Kosovo by the end of 2011. It also includes an energy efficiency survey of the public sector buildings and an education campaign by end of 2011. ○ Expansion of improved metering of KEDS customers by 2012. <p>□ Energy conservation:</p> <ul style="list-style-type: none"> ○ Reduction of commercial losses (theft and non-payment) (about 35% in 2009) and technical losses in distribution (17% in 2009) by privatizing distribution and supply of electricity. Targets for loss reduction and efficiency improvements in distribution will be part of the privatization agreements and incorporated in the tariff review process by the regulatory agency. <p><u>If the Bank is counting on privatization to solve this then it needs to provide specific details on what it anticipates will be in the contract terms and how much of this gained energy efficiency can go to supply Kosovo's energy demand, etc.... The Bank should also provide an economic analysis of the difference in value to the government of fixing the system now compared to offering the KEK asset in its inefficient state.</u></p> <p><u>Energy efficiency represents a huge potential, least cost alternative. The Bank needs to start by substantiating what will be done to reduce the loss of electric energy in the grid, support for programs to insulate residential buildings and consideration of programs such as the WB compact florescent light bulb distribution project in Bangladesh.</u></p> <p><u>The Bank needs to provide specific details on the measures that will be taken and the expected results in GWh/year for Kosovo.</u></p>
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	<p>system. Under the RFP for the Kosova e Re Project, bidders will be required to implement this option if the results of the feasibility study are positive. Provision of heat through cogeneration could potentially save the district heating system up to 10,000 tonnes of heavy fuel oil per year.</p> <p><u>[Given the very high heat demand load on the Kosovo power system (estimated at over 30% of gross production), the cogeneration conversion of Kosovo B study must be completed for consideration of the current investment decision. The Expert Panel TOR must be updated with this information and how it ultimately affects overall electricity demand in Kosovo.]</u></p>	
<p>Criteria and Impacts</p>	<p>Description</p>	<p>Quantitative Indicators</p>
<p>(iv) <i>Criterion: After full consideration of viable alternatives to the least cost (including environmental externalities)</i></p>	<p>Viable alternatives. Kosovo has no other viable alternatives for large-scale base load power generation besides lignite. It has no access to natural gas imports. Hydroelectric and wind power opportunities are limited in size. Opportunities to import power</p>	<p>Least-coste Analysis</p>

Comment [A16]: This statement is confusing. The Bank has not established that Kosovo needs a “large-scale” base load power plant. Currently, it’s electricity deficits tend to happen for peak load power. In addition, the new KRPP lignite power plant is two 300 MW units. The proposed Zhur Hydroelectric Power Plant would be 300 MW and there are multiple 100 MW wind power projects planned.

<p><i>options, and when the additional financing from donors for their incremental cost is not available</i></p> <p>Impact: project is confirmed to be the least cost after full consideration of alternatives and inclusion of environmental externalities in the analysis; in case other options are economically viable, availability of additional financing from donors to cover incremental costs have been pursued and assessed (but ultimately does not materialize).</p>	<p>from neighboring countries are limited due to transmission constraints as well as the high cost of imported power in the tight regional market. The regional Generation Investment Study 2004 (referred in Section (i)), and its update in 2007 to reflect changes in the price of fuel and carbon, concluded that Kosovo lignite power would be the least cost in varying capacity (between 2000 to 4800 MW) under various scenarios of carbon costs, fuel prices, and regional integration. Kosovo already swaps some power off-peak with the predominantly hydroelectric system in Albania. KfW is financing a new 400-kV transmission system between Albania and Kosovo, which should allow improved optimization between the two systems.</p> <p><u>What is the expected power exchange between Kosovo and Albania?</u></p> <p><u>The Bank needs to match the proposed new coal-based power generation for base load with Kosovo's actual energy needs profile, considering all potential alternatives including, cogeneration, which will address the large heat demand load on the electricity system, the huge potential for energy efficiency improvements as a source of additional energy supply, and renewable sources (mainly wind, hydropower, geothermal, and solar water heaters).</u></p>	<ul style="list-style-type: none"> o <u>Least-cost analysis will be updated at the time of appraisal</u> of the proposed PRG from the 2006 analysis taking into consideration the updated project costs and environmental externalities, and EU directives. o The analysis done in 2006 shows that the project is least-cost after consideration of alternatives and factoring in environmental externalities costs into the levelized cost of electricity under investigated environmental cost scenarios with costs of greenhouse gas (GHG) emissions ranging between €5-19/tonne CO₂-eq <p><u>[The Bank needs to add cost comparisons to energy efficiency measures, cogeneration, imports from the regional grid/Albania or any renewable energy alternatives. Otherwise, the project is not in compliance with Criterion IV.]</u></p> <p><u>[The sensitivity analysis needs to adequately reflect rising coal prices. See comment on least-cost analysis.]</u></p> <p><u>[The life cycle cost analysis for the proposed mine-mouth coal power plant must include costs associated with the coal mine operations, including mine closure and reclamation.]</u></p> <p>See Table 2, below.</p>	<p>Comment [A17]: 1.The life cycle cost analysis for the proposed mine-mouth coal power plant does not consider costs associated with the coal mine operations, including mine closure and reclamation or fly ash dump costs. Moreover, it appears that the sensitivity analysis does not adequately reflect rising coal prices. The Newcastle spot market prices for coal have doubled in the past four years. Coal prices account for anywhere between 40-80% of the levelized cost of electricity (LCOE).</p> <p>Comment [A18]: The current analysis was produced as part of the LPTAP Appraisal (2006) under Task 5: Economic and Financial Analysis, which stipulated: "The economic analysis should integrate the forgoing and show the range of results for the recommended three options and assumptions (sensitivity analysis) compared to the alternatives, including gas and renewable sources and electricity import." The analysis only considers fossil fuel-based alternatives for the project, i.e., three different coal technologies, combined cycle natural gas, and fuel oil. There is no cost comparison to energy efficiency measures, cogeneration, imports from the regional grid/Albania or any renewable energy alternatives.</p> <p>Comment [A15]: The consideration of alternatives and environmental externalities is largely inadequate. See comments in this section.</p>
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		<p>□ Environmental Externalities:</p> <ul style="list-style-type: none"> o Environmental externalities were quantified for the project and alternate generation technologies in 2006. Environmental and particularly health impacts related to air emissions of SO₂, NO_x, NH₃, NMVOC, and primary particles, and the emission of GHG (CO₂, CH₄, and N₂O) were considered. <u>The Bank needs to adequately account for the environmental externalities associated with the proposed mine-mouth lignite power plant. To begin it needs to add the significant costs associated with the new coal mine operation and the costs from emissions of mercury and lead, which are a big concern for lignite combustion. Moreover, the TOR and economic analysis need to specify and account for the actual SO_x and NO_x abatement technology that will be required.</u> o Estimated cost of environmental/health impacts range from 0.69-0.76 eurocent/kWh for coal technologies to 0.75 eurocent/kWh for fuel oil and 0.24 eurocent/kWh for combined cycle. o Emissions of GHG range from 0.92-1.02 kg/kWh for coal technologies to 0.81 kg/kWh for fuel oil and 0.42 kg/kWh for combined cycle natural gas.¹³ Valuing such emissions at €19/tonne of CO₂-equivalent the carbon costs of the lignite plant are about 1.75-1.94 eurocents per kWh, while the fuel oil plant has a climate cost of 1.54 eurocents. These prices are 0.41-0.45 and 0.37 eurocent/kWh, respectively, at a price level of CO₂-eq €5/tonne (approximately the price of CDM certified emissions in 2006) as was investigated in the Economic Analysis carried out by the Bank team. The CCGT plant would have a carbon cost of 1.04 eurocents¹⁴ at a price level of CO₂-eq €19/tonne but is not feasible due to unavailability of natural gas in Kosovo.
Criteria and Impacts	Description	Quantitative Indicators

Comment [A19]: The analysis indicates the project will only achieve ~70% reductions in Sulfur Dioxide and Nitrogen Oxides. The best technologies achieve reductions of 90% or greater.

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<p>(v) Criterion: <i>Coal projects will be designed to use the best appropriate available technology to allow for high efficiency and, therefore, lower GHG emissions intensity</i></p> <p>Impact: assessment of the appropriateness of the selected technology option, factoring in specific system constraints and size requirements, technical, local environmental situation, commercial availability of technology, and environmental performance.</p>		<p><input type="checkbox"/> Analysis of alternative technology options:</p> <ul style="list-style-type: none"> o Comparison between continuing of Kosovo A with KRPP: Retirement of Kosovo A from active service by end-2017 and replacement by KRPP, would increase efficiency from about 25%²⁰ to at least 37%. o The technology analyses for KRPP were completed in February-April 2010. The technology alternatives considered were ultra-supercritical pulverized coal (PC) with a thermal efficiency of 42% and circulating fluidized bed (CFB) subcritical with a thermal efficiency of 38 to 39% depending on the unit size.²¹ o Implementation of KRPP with a thermal efficiency higher than 37%. The RFP for the Kosova e Re Project requires the investor to use the best available technology with a minimum thermal efficiency of 37% for KRPP. Selection of the winning bidder will depend, in part, on the efficiency of the proposed technological solution. o Completion by investor of environmental rehabilitation of Kosovo B by end-2017; compliance of Kosovo B with EU LCP directive for existing plants. The <i>Kosova —B// Investment Requirements and Rehabilitation Feasibility Study</i> will present alternatives that would be costed out by the investor and presented to the govt. to make a decision. The investment decision would be further presented to the regulatory agency for review and approval. <p><input type="checkbox"/> Extension to Regional Analysis:</p> <ul style="list-style-type: none"> o Assessment of regional considerations for the project and technology choice completed in 2004 (updated in 2007). Regional analysis does not change the technology choice and finds Kosovo lignite to be the least cost power generation options in South East Europe.²²
<p>Criteria and Impacts</p>	<p>Description</p>	<p>Quantitative Indicators</p>

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<p>(vi) <i>An approach to incorporate environmental externalities in project analysis will be developed</i></p> <p>Impact: develop a methodology for assessment of net local (SOx, NOx, and PM) and GHG emissions at the project level. Such methodologies will be included in the analysis of alternatives and least cost options in criterion (iv) above.</p>	<p>Technology switching values for carbon dioxide can be calculated during appraisal if so desired, although assumptions regarding realistic alternative fuel supplies are risky.</p> <p>Emissions from Kosovo B will be reduced through rehabilitation.</p> <p>The Kosova e Re Project will include monitoring of emissions at the project site.</p>	<p><input type="checkbox"/> Environmental externalities: [see comments on Criterion iv, above]</p> <p>o An economic analysis that took into consideration environmental externalities was completed in 2006 and a summary is included in the Project Appraisal Document for LPTAP.</p> <p>A new economic analysis will be carried out at project appraisal that includes a new and expanded evaluation of switching values, based on the results of the competitive tender for the Kosova e Re Project.</p> <p><input type="checkbox"/> Baseline values and projections: Table 3*: Total projected air emissions from power generation (tonnes per annum)²³ [Could not copy table. See original TOR]</p>
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Table 2: Levelized cost with and without environmental externalities, 2006 (in eurocents/kWh)¹²

	Without env. externalities	With env. externalities	
		CO ₂ -eq €5/tonne	CO ₂ -eq €19/tonne
Lignite subcritical	3.60	4.92	6.30
Lignite supercritical	3.55	4.84	6.09
Lignite ultra-supercritical	3.58	4.83	6.02
Natural gas combined cycle*	5.47	5.95	6.51
Fuel oil	6.48	7.82	8.77

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*Kosovo has not known gas resources or supply source. However, in the region several proposals for building a gas pipeline through South East Europe have been discussed for several years at a conceptual level by market players and the governments. Though highly uncertain, an assessment was carried out on the assumption that gas becomes available for power generation in Kosovo.

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ANNEX 2—Key Reports

Key project documents relating to compliance with SFDC:

1. *Energy Strategy of the Republic of Kosovo (2009-2018)*, September 2009.
2. *Draft Request for Proposals* for the Kosovo e Re Project, issued 10 August 2010.
3. Technical Background Paper Energy Sector for the Donors Conference, 2008.
4. *Strategic Environmental and Social Assessment*, ERM Italia, 2008.
5. *Regional Balkans Infrastructure Study—Electricity (REBIS) and Generation Investment Study (GIS)*, prepared by PwC Consortium (PricewaterhouseCoopers LLP, Atkins International plc, MWH), 31 December 2004, updated 2007.
6. *Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 5.8 million (US\$ 8.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for a Lignite Power Technical Assistance Project*, World Bank, September 2006.
7. *Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 3.8 million (US\$ 5.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for an Energy Sector Clean-up and Land Reclamation Project*, World Bank, May 2006.
8. *Studies to support the development of new generation capacities and related transmission—Kosovo UNMIK*, prepared by Pöyry Consortium (Pöyry, Cesi, Terna, and Decon), August 2007.
9. *Study for Decommissioning of Kosovo-A Power Plant*, Final Report, prepared by Evonik Industries, 15 March 2010.
10. *Economic and Technical Feasibility of the Rehabilitation of Units of Kosovo A Power Plant*, European Agency for Reconstruction Contract 04KOS01/03/007, prepared by A3i Consortium (Application Européenne de Technologie et de Services, AEA Technology plc, Allplan, Iberdrola S.A.), Task Report, September 2005.
11. *Scoping Statement for Environmental Assessment for Rehabilitation of Thermal Power Plant Kosovo B*, Final Report, prepared by Advanced Engineering Associates International et al, 6 April 2010.
12. *Kosova —B// Investment Requirements and Rehabilitation Feasibility Study*, prepared by PA Government Services for USAID, August 2010.
13. *Improvement of District Heating in Kosovo*, KfW, February, 2009.
14. *Development and Climate Change, A Strategic Framework for the World Bank Group: Technical Report*, World Bank Group, January 2009.
15. [2010 Updated Kosovo Energy Market Model](#)
16. [Renewable Energy Options Study from the LPTAP Appraisal, 2006 Procurement Plan.](#)
17. [EC investigation of converting Kosovo B into a combined heat and power plant.](#)
18. [Study for the Zhur Hydro Power Plant \(May 2009\).](#)
19. [Wind feasibility study](#)
20. [Low-carbon growth strategy for the energy sector in Kosovo. To be completed by year-end 2011.](#)

Subject: Kosovo Project - Request for documents!
From: Nezir Sinani <nezir.sinani@kipred.net>
Date: Fri, 9 Sep 2011 12:16:53 -0400
To: jarmitage@worldbank.org, khuber@worldbank.org, dwetzel@worldbank.org, rlenton@worldbank.org
CC: tahlers@worldbank.org, canstey@worldbank.org, plallas@worldbank.org, plehouerou@worldbank.org

Dear all,

please see attached!

I thank you for your cooperation and understanding.

Warm regards,
Nezir

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Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: +381 38 227 778
Mobile: +12026740024

<http://www.kipred.net>

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For more information please visit <http://www.messagelabs.com/email>

Kosovar CSOs Request for Documents.pdf	Content-Type: application/pdf Content-Encoding: base64
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To: Ms. Jane Armitage
Country Director and Regional Coordinator for South East Europe, the World Bank

Cc: Mr. Konstantin Huber
Executive Director, Kosovo
Ms. Deborah Wetzel,
Chief of Staff, President's Office
Mr. Roberto Lenton
Inspection Panel Chair

Date: September 9, 2011

Subject: Request for online publication of core studies and/or documents related to the work of Expert Panel for Kosovo Project

Dear Ms. Armitage,

As you are aware, the World Bank has published a few weeks ago the Project Information Document for the Kosovo power plant project. The PID was issued to the public together with the Terms of References for an Expert Panel and the names of the members of the Panel itself. The ToR has an attachment that includes a number of documents that the Panel has been advised to consult whilst they do the screening of the six criteria for coal projects of the Strategic Framework for Development and Climate Change. The list of these documents is included in the Attachment 2 of the ToR.

The World Bank has not published these documents. Kosovar Civil Society has been trying to get hold of some of the documents from different sources, including the Department of the World Bank that manages this process. So far we have been unable to do so and we have not received any reply from the WB Departments involved. The lack of cooperation and

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transparency is seriously hindering our ability to constructively cooperate and provide our comments on the work of the World Bank.

Furthermore, PID stresses out that the World Bank is working on a study which will provide the Expert Panel with the World Bank's overview of the Least Cost Supply Option for Kosovo. For many weeks we have been requesting officially from the World Bank to receive the ToR for this work, as the study itself is not yet available as far as we know, and again did not receive the document itself from the World Bank. This is a significant part for the work of the Panel and we need to read what this study will cover.

The future of our country is at stake and we strongly demand that the World Bank make available all the documents that are being used to take important decisions for our lives. We urge you to request from the specific departments of the Bank involved in the Kosovo project to make immediately public all the documents requested above and any others produced in the future and that will be used for the purposes of Kosovo project.

We the undersigned thank you in advance for your understanding and support and look forward to your cooperation.

Best regards

Agron Demi – GAP Institute for Advanced Studies, Krenar Gashi - Kosovar Institute for Policy Research and Development (KIPRED), Jeta Xharra - Balkan Investigative Reporting Network (BIRN), Ferdinand Nikolla – Forum for Civic Initiative (FIQ), Aliriza Arenliu – DokuFest, Besa Luci – Kosovo 2.0, Raba Gjoshi – Youth Initiative for Human Rights (YIHR), Leonora Kryeziu – Prishtina Institute for Political Studies (PIPS), Faik Ispahiu – Internews Kosova, Naim Rashiti - International Crisis Group (ICG)

Subject: Re: Fw: Kosovo Project - Request for documents!

From: Nezir Sinani <nezir.sinani@kipred.net>

Date: Thu, 15 Sep 2011 16:08:33 -0400

To: Mgulati@worldbank.org

CC: Jarmitage@worldbank.org, khuber@worldbank.org, Dwetzel@worldbank.org, rinton@worldbank.org, Tahlers@worldbank.org, Canstey@worldbank.org, plallas@worldbank.org, Plehouerou@worldbank.org, Krenar Gashi <krenar.gashi@kipred.net>, Agron Demi <agron@institutigap.org>, Ferdinand Nikolla <ferdinand@fiq-fci.org>

Dear Mr. Gulati,

I hope this e-mail finds you well. We are delighted to see the WB publish more documents related to the Expert Panel ToR documents. We thank you for the responsiveness. As of now the following documents are still missing and have not yet been published: documents numbered 11, 12, 17, 28 and 29. The following documents are not public according to what we read in the site: documents numbered 2, 21, 22, 24 and 25. We urge you to provide them online at the earliest time possible. Their provision to the public is of huge importance. By not having all the documents public to what has been provided to the Panel, serious doubts arise about the integrity of the decision the Panel will take and also dubs the project as non-transparent.

Furthermore, we would like to stress out once again our request to receive a copy of the ToR for Least Cost Supply Options review that you are undertaking and which is of huge importance for the Panel work.

We thank you in advance for your support and understanding.

Regards,
Nezir

On Mon, Sep 12, 2011 at 10:57 AM, Nezir Sinani <nezir.sinani@kipred.net> wrote:

Dear Mr. Gulati,

thank you for your email. To start with, we did not copy you in the email sent to your colleagues as in the past we did not receive any reply from your side on a few requests we had sent to you and your colleague Scott Sinclair. I am forwarding one of those emails below for the information of all people copied in this email (I can send more of those to everyone

in case you need to see them). We will be happy to copy you in the future if you will be replying to them.

Secondly and most importantly, I do hope that you will visit yourself the WB web site link you have provided to check for yourself what is available there and what is not. For your information, out of 29 listed documents on annex 2 of the ToR for the Expert Panel, only seven documents are available, i.e. documents numbered 1, 4, 8, 14, 15, 19 and 20. Document number 5 is only partly available, i.e. the version published in 2004, whilst the updated version of 2007 is missing. Documents 6 and 7 are broken links. Whilst documents 2, 21, 24 and 25 are classified and not provided to the public. The largest portion of them are not available at all (i.e. documents numbered 3, 9, 10, 11, 12, 13, 16, 17, 18, 22, 23, 26, 27, 28 and 29). This can be verified by you and anyone copied in this email. Hence, there is no erroneous assertion of whatsoever done in the letter sent to you last week and we still stand behind every single word written on it. Once again, we strongly request that you make available every single document listed on this annex to the public on the WB web-site asap.

Please let me repeat another time our request for access to the ToR for the Least Cost Supply Option study that you are doing now for the needs of the Expert Panel. This document is of huge importance and should be made available to the Kosovar public at this stage.

By not making all these documents available, the WB is limiting our ability to work with the stakeholders involved in this project. This fact makes the project highly non-transparent. Therefore, we urge you to publish all the documents immediately and before the Panel finishes its work, so that we can provide our comments on these reports in due time.

We remain committed to working with you constructively, as has always been the case. I thank you for your understanding.

Best regards,
Nezir

On Fri, Sep 9, 2011 at 6:39 PM, <Mgulati@worldbank.org> wrote:

Dear Mr. Sinani;

I have been forwarded your attached letter. We will respond to your letter shortly. However, I would like to correct an erroneous assertion in your letter that the documents provided to the Expert Panel have not been made public or made available.

In our most recent meeting with you and your colleagues in the World Bank office in Washington, we had informed you and your colleagues that the Terms of Reference of the Panel were posted on the World Bank's Kosovo country website and the related documents mentioned in the Attachment 2 to the TOR had links to those documents and that these could be downloaded. We had also mentioned this to

several CSOs who met the Expert Panel on August 26, 2011 in Pristina that these documents were available on the Bank's website (please see the link below). A copy of the TORs and the Attachment were also distributed to the CSOs who participated (including GAP, KIPRED, and FIQ whose names are mentioned in your letter). Most of these documents have been available on the website of Government of Kosovo's project website for a long time (please see the link below).

Please let us know if you have any problem in downloading these documents.

World Bank website

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTENERGY2/0,,contentMDK:22970700~pagePK:210058~piPK:210062~theSitePK:4114200,00.html>

Kosova e Re Power Project website

http://www.lignitepower.com/index.php?option=com_content&view=category&layout=blog&id=39&Itemid=105&lang=en

We hope you would inform other CSOs whose names are mentioned in your letter.

We remain committed to growth and development of Kosovo and for meaningful consultation and participation of all stakeholders.

Please do not hesitate to contact us for any further information.

Regards

Mohinder Gulati

Country Sector Coordinator, Western Balkans
Europe and Central Asia Region, World Bank
1818 H Street, Washington DC, USA
Phone# [1-202-473-3211](tel:1-202-473-3211)

From: Nezir Sinani <nezir.sinani@kipred.net>
To: jarmitage@worldbank.org, khuber@worldbank.org, dwetzsel@worldbank.org,
rlenton@worldbank.org
Cc: tahlers@worldbank.org, canstey@worldbank.org, plallas@worldbank.org,
plehouerou@worldbank.org
Date: 09/09/2011 12:16 PM
Subject: Kosovo Project - Request for documents!

Dear all,

please see attached!

I thank you for your cooperation and understanding.

Warm regards,
Nezir

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Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: +381 38 227 778
Mobile: +12026740024

<http://www.kipred.net>





(See attached file: Kosovar CSOs Request for Documents.pdf)


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Nezir SINANI
Researcher/Analyst
Kosovar Institute for Policy Research and Development (KIPRED)


Rexhep Mala Str. No.5A
10 000, Prishtina, Kosovo
Tel/Fax: +381 38 227 778
Mobile: +12026740024

<http://www.kipred.net>

from  [Nezir Sinani nezir.sinani@kipred.net](mailto:nezir.sinani@kipred.net)
to  [Scott Sinclair <ssinclair@worldbank.org>](mailto:ssinclair@worldbank.org) [hide details Sep 6 \(5 days ago\)](#) ▾
cc  Mgulati@worldbank.org,
 tahlers@worldbank.org.

 Chad Dobson <cdobson@bicusa.org>.

 akircher1@worldbank.org,

 kschrader@worldbank.org

date  Tue, Sep 6, 2011 at 5:04 PM

subject  Study no. 5!

mailed-by  kipred.net

Dear Scott,

I hope this e-mail finds you well. I was wondering if you could help us get a copy of the study no. 5 (the original and the updated one) in the attached Annex of the ToR you published for the Expert Panel. I thank you in advance for your support.

Regards,

Nezir

--

Nezir SINANI

Researcher/Analyst

Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A

10 000, Prishtina, Kosovo

Tel/Fax: +381 38 227 778

Mobile: +12026740024

<http://www.kipred.net>

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Subject: Kosovo follow-up!

From: Nezir Sinani <nezir.sinani@kipred.net>

Date: Thu, 29 Sep 2011 11:32:10 -0400

To: jarmitage@worldbank.org

CC: akircher1@worldbank.org, Mgulati@worldbank.org, Chad Dobson <cdobson@bicusa.org>

Dear Jane,

it was a great pleasure meeting you last week and discussing the Kosovar project. In line with what was discussed, I wanted to know what is the latest on the ToR for the Least cost supply study that the Bank is doing for the Expert Panel needs. We do look forward to having a copy of it and if we can help anyhow your work to make it available sooner to us, please let us know.

On a second note, we got some information that the Bank is going to present the ESKOM findings of the IP in Kosovo. How accurate is this information? We would certainly like to be part of the discussion on this matter there, in case such a meeting will take place. Related to this sort of interaction, we do still believe that it would be very useful if you could produce a schedule of different public discussions in Kosovo you would find useful to be held whilst the project is developed. We certainly believe that this would help the Bank keep everyone involved and informed about the project. Would be very happy to support this activity of yours in Kosovo through our coalition of CSOs.

I thank you in advance for your understanding and cooperation.

Warm regards,

Nezir

--

Nezir SINANI

Researcher/Analyst

Kosovar Institute for Policy Research and Development (KIPRED)

Rexhep Mala Str. No.5A

10 000, Prishtina, Kosovo

Tel/Fax: +381 38 227 778

Mobile: +12026740024

<http://www.kipred.net>

Kosovo follow-up!

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KIPRED

| FIQ

| GAP Institute

Energy Projects in Kosovo



September, 2011
Prishtina, Kosovo

Prepared by: Nezir Sinani and Agron Demi

Edited by: Krenar Gashi

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GAP Institute

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ABBREVIATIONS

USAID	Unites States Agency for International Development
MW	Mega watts
KIPRED	Kosovar Institute for Policy Research and Development
GAP	Institute for Advanced Studies
BIRN	Balkan Investigative Reporting Network
FIQ	Forum for Civic Initiatives
YIHR	Youth Initiative for Human Rights
PIPS	Prishtina Institute for Political Studies
ICG	International Crisis Group
KEK	Kosovo Energy Corporation
WB	The World Bank
LPTAP	Lignite Power Technical Assistance Team
U.S.	United States
SRSG	Special Representative of Secretary General
PSC	Project Steering Committee
MEM	Ministry of Energy and Mines
MEF	Ministry of Economy and Finance
MESP	Ministry of Environment and Spatial Planning
MLSW	Ministry of Labor and Social Welfare
ERO	Energy Regulatory Office
ICMM	Independent Commission for Mines and Minerals
UNMIK	United Nations Mission in Kosovo
ECLO	European Commission Liaison Office
ICO	International Civilian Office
KfW	German Development Bank
IBRD	International Bank for Reconstruction and Development
IDA	International Development Agency
IFC	International Finance Corporation
KEDS	Kosovar Electricity Distribution and Supply Company
NGO	Non-governmental Organization
LDK	Kosovo Democratic League
AAK	Alliance for Kosovo's Future
PDK	Kosovo Democratic Party
PIU	Project Implementation Unit
CEZ	Czech Republic Electricity Producer
GWh	Giga watt hours
EU	European Union

EXECUTIVE SUMMARY

The Kosovo government, with the support of the World Bank and USAID, is determined to privatize the Electricity Distribution and Supply Company, the Kosova B thermal power plant, and lignite capacity, and is committed to going ahead with the construction of the Kosova e Re power plant. All these projects are being implemented without necessary studies on alternative sources of energy, reduction of commercial and technical losses, and improvement in energy-efficiency measures.

Any country seeking entry into the European Union must address several key issues in developing its energy strategy, including the well-being of its citizens, improvement in quality of life, and safeguarding environmental protection. Despite the infusion by Kosovar and international institutions of more than 1 billion euros into the country's energy sector over the past decade, these quality-of-life and environmental issues have not been measurably advanced. The European Union acquis requires would-be member countries to meet the EU's latest energy policy objectives, which include protection of the environment as a key element. However, the Kosovar government and Assembly have failed to address the EU requirements in the current national energy strategy, and a plan for Kosovo's actions in this regard is lacking. Simply put, the problems of the country's energy sector are far from being resolved.

In 2002 UNMIK signed the "Athens Memorandum," which led to the establishment of the Kosovar energy community. It was expected by all that this event would lead to the formation of a coherent energy strategy that would be congruent with EU requirements. The Kosovar government, being the only stakeholder in the country's energy sector, declared its commitment to moving ahead with the construction of the New Kosova (Kosova e Re) power plant. Yet significant problems still hinder that progress. Among these problems are a lack of well-researched strategies, rampant environmental pollution, sluggish economic development, and a lack of transparency on the part of local and international agencies and representatives.

This research paper presents a thorough analysis of the perspectives and roles of the main stakeholders that influence Kosovo's energy sector. It goes on to analyze the country's energy strategy, the energy market model, and the privatization process. It concludes by addressing some of the open issues of energy efficiency and alternative energy sources.

Those involved in the development of Kosovo's energy sector have yet to show any credible results. The Energy Strategy, drafted by the government in cooperation with the World Bank, USAID, the European Commission, and others, fails to address quality-of-life issues. Instead, it focuses solely on lignite power generation capacities. The whole process of developing new generation and distribution capacities has been marred by lack of transparency, discordance between international agencies and powers, and a failure to consult with civil society organizations.

Lignite power generation is the highest and only priority – The Kosovar government is rushing through the process of privatization because of the budgetary crisis it is facing. This process races on even in the face of the government's failure to pursue any studies on alternative sources of energy and to implement energy efficiency measures. As one might expect, the government's partners in the energy sector have different priorities, and therefore they are offering and pursuing different (and often conflicting) solutions. At the governmental level, questions are seemingly not being asked, let alone answered. These include the following: Beyond the production of energy, what level of environmental

standards should the government be supporting? Should the Kosovar government set energy efficiency as a higher priority than increased energy production? How do the different approaches affect citizens' well-being? Will they even meet the country's energy demands? These are the questions that citizens of Kosovo, along with various local and international stakeholders, are asking.

The government finds the World Bank's approach very appealing, with its calls for a new lignite power plant. But there was no consideration to promote alternative sources of energy prior to the promotion of lignite. Complicating all this is the fact that the International Finance Corporation has not made public the business plan for the privatization of the Kosovar Electricity Distribution and Supply Company (KEDS), and USAID consultants, unqualified as they are, have ended up acting as the decision makers.

Failure to address alternative energy sources in the energy strategy – Kosovo's energy strategies have narrowly and solely focused on lignite as the source for the production of electricity. Consequently, the new Kosovo's National Energy Strategy covering the period from 2009 to 2018 cannot be described as anything other than a lignite strategy. It includes no study on alternative forms of energy and no plans for future regional energy exchange. Further, it has no plans which would allow for the achievement of EU goal to reduce CO2 emissions by 20 percent, no plans to improve energy efficiency by 20 percent, and no plans to use renewable resources for 20 percent of electricity production by 2020. The Kosovo Assembly and the appropriate parliamentary committee should insist that the government redraft a new strategy taking the foregoing into consideration.

A market model that creates monopoly – The Energy Market Model developed by the government in 2010 has never been made public, and the privatization of generation and distribution capacities is being carried out hastily in order to avoid the budgetary crisis the government is expecting. The privatization of distribution is expected to be complete by the end of 2011, and of generation by early 2012.

Lack of vision translated into an ineffective privatization process – By insisting on utilizing coal to meet the country's energy needs, Kosovo seems to be falling away from fulfilling stated EU requirements that would otherwise pave its way for future entry. The process of privatizing the distribution and generation sectors was initiated years ago but has never come to fruition. So far, the failure of the government to deal with this issue in a timely fashion has led some credible foreign investors, such as RWE Energy and CEZ Group, to withdraw from the process. Currently, the government has prequalified some companies that lack proven management skills for projects of this size, and those choices do not bode well for the country's efforts necessary to meet EU environmental standards. Because neighboring countries have engaged competent Western companies in their pursuit of sound energy strategies and therefore will certainly surpass Kosovo's meager efforts, Kosovo will suffer the consequences with regard to stifled technology advancement and fiercer competition.

Open issues that need to be considered while addressing the strategy and privatization – Even though Kosovo's Energy Strategy has failed to attract regional cooperation, the country has already begun investing in a 400 kV line with Albania, which will create better opportunities for cooperation and will secure a more reliable power supply. Investment in a grid connecting Kosovo with Albania is needed. Yet even if such a project were to commence today, the energy grid within Kosovo is so poorly maintained that losses from both grids would constitute up to 43 percent of the energy produced. That calculates to be over a hundred million euros annually. These inefficiencies result in great technical and commercial losses

for Kosovo Energy Corporation. The inefficient use of energy can be observed in households, where 35 percent of the energy consumed is for heating, testifying to the fact that residential buildings have poor insulation and require immediate remedy. The Kosovo Action Plan for Energy Efficiency 2010–2018 predicts an increase of 9 percent in energy efficiency by the end of 2018. This figure is still considerably below the 20 percent EU requirement.

Conclusions

KIPRED, GAP and FIQ point to the need to modify Kosovo's energy strategy in a more transparent manner, one that results in a plan that serves the interests of the citizens and reflects EU standards on the environment. The strategy should be based on two foundational premises:

1. The process must be transparent – The stakeholders (amongst others the World Bank) should ensure the transparency of the privatization process of public enterprises in Kosovo, especially the privatization of generation and distribution of electrical energy and energy market modeling. This can be done by conducting public discussions and incorporating comments from these forums into policy. This would ensure competence and accountability on behalf of all companies and entities involved.
2. The process must effectively and measurably result in the use of alternative sources of energy and energy-efficient mechanisms – To begin with, the Energy Strategy 2009–2018 should be updated to include thorough studies on alternative sources of energy. Next, the Action Plan on Energy Efficiency 2010–2018 should be revised to be in line with the EU criterion of a 20 percent increase in energy efficiency by 2020. Efforts must also be made to decrease technical and commercial energy losses and improve the insulation in residential buildings throughout Kosovo.

1. INTRODUCTION

The energy sector is very problematic in Kosovo. Despite local and international investment, Kosovo lives in a continual energy crisis characterized by pollution-producing lignite power generation, an old and inefficient transmission and distribution grid, and high technical and commercial losses. Long-promised energy-efficiency measures have not been established. Because of this, demand for electricity in the country is artificially high, and the citizens of Kosovo continue to face energy blackouts on a regular basis.

These power outages, an everyday occurrence in Kosovo since 1999, are one of the main obstacles to the country's economic development. Due to the lack of a reliable energy supply, many planned investments in Kosovo never materialize, and existing industry is at risk.

The current facilities for energy generation, especially the Kosova A thermal power plant, remain the biggest polluters in Kosovo. Environmental damage is caused not only by the ash released into the atmosphere, which has led to fatalities among the population living around the thermal power plants, but also by carbon dioxide emissions, the exploitation of coal, and the industrial use of water, a scarce resource in Kosovo.

As part of its efforts to overcome the energy crisis, Kosovo has compiled a National Strategy on Energy, which the Kosovo Assembly adopted in April 1st, 2010. Unfortunately, this strategy focuses mainly on boosting power generation capacity by increasing the mining of lignite, failing to sufficiently consider the issues of energy efficiency or alternative sources of energy production.

In this study, prepared by three research institutes,¹ the main issues of the National Strategy on the energy sector will be analyzed, with a focus on certain critical problems that are obvious within the National Strategy. Our goal is to promote development of the energy sector while considering the well-being and health of Kosovo's citizens, improving of the quality of life in the country, safeguarding environmental protection, and promoting Kosovo as an attractive country for foreign investment.

This study, which has been supported by a large network of non-governmental organizations in Kosovo,² identifies the strategic areas of the energy sector, analyses the Kosovo government's actions as well as those of other stakeholders, and puts forward concrete recommendations on how current developments in the sector can be improved in order to move into line with European Commission standards.

¹ Kosovar Institute for Policy Research and Development (KIPRED), GAP Institute (GAP), and the Forum for Civic Initiatives (FIQ).

² This study was also supported by Balkan Investigative Reporting Network (BIRN), Youth Initiative for Human Rights (YIHR), Internews Kosova, DokuFest, Kosovo 2.0, Prishtina Institute for Political Studies (PIPS), International Crisis Group (ICG)

2. A BRIEF HISTORY

The Kosovo energy system has a history spanning several decades. In 1922 Kosovo inaugurated its energy development by opening its first underground coal mine. That mine provided coal until 1958, when surface digging of lignite began in the Mirash mine. Today the Mirash mine, the Bardh mine, and the Sibovc South West mine are Kosovo's main sources of coal for energy, supporting a total annual production of approximately 7 million tons of lignite. By 1960, the first coal-based thermal power plant was under construction. This was the Kosova A thermal power plant, whose first unit had an installed capacity of 65 MW. Kosova A had constructed four other units by 1975, reaching a total installed capacity of 800 MW. Between 1977 and 1984, the second thermal power plant, Kosova B, was built, with a total capacity of 678 MW from two generating units.

For a long time, Kosovo participated in the energy system of the former Yugoslavia. During that period, energy production in Kosovo was concentrated on lignite-based production (thermo), with a small contribution from water-based production (hydro). Kosovo's own energy supply came both from the Kosova thermal power plants and from other sources of energy production located throughout the territory of the former Yugoslavia.³

In the '90s, during Yugoslavia's dissolution, the energy system of the country received very little maintenance or investment. From 1989 to 1999 most local experts were unable to work. However, in mid-June 1999, when the last war with Serbia ended, Albanian workers started coming back to Kosovo and were able to return to their jobs. After a decade of neglect, the energy sector received investments first from international and then from local institutions in order to revive the country's energy capacity.

In the postwar period the power sector received a large infusion of international aid. While accurate figures on this are not available, it is estimated that more than 1 billion Euros have been invested since 1999. However, even these funds have not been sufficient to resolve the problems of the country's energy sector.

From 1999 to 2006 the Kosovo Trust Agency held the shares of the main energy company of the country, KEK J.S.C., and managed the energy sector. During this time, the sector was under partial supervision by local managers, but most of its management was conducted by international companies. Companies that intervened at different times to manage KEK included Mott McDonald (UK), Électricité de France (France), SwedPower (Sweden), and ESB International (Ireland). A number of locals have held managerial positions since 2006. Despite the investment and aid coming from abroad and from home, problems and difficulties were never completely overcome.

Today, the Kosovo government remains the main and only shareholder in its country's energy sector. In cooperation with other stakeholders such as the World Bank (WB), the United States Agency for International Development (USAID), the European Council, and other actors, the government prepared the Kosovo National Strategy on Energy 2009–2018, with the objectives of overcoming chronic problems with the power supply and meeting the demands of local consumers. This strategy focuses mainly on developing the country's energy sector by supporting projects for lignite-based energy generation, on and raising the level of investments with private capital, specifically through the privatization of this sector.

³ Kosovo Energy Corporation J.S.C. (<http://www.kek-energy.com>).

3. INVOLVED ACTORS

From 1999 to 2006 the privatization of socially owned enterprises was led by international institutions, but today this process is handled by Kosovo's leaders, with the support of important financial and political international institutions.

Most of the civil organizations in Kosovo support the process of privatization as a concept, with the understanding that private investment in major capital projects is crucial for economic development. However, experiments in privatization so far have shown that local institutions, even when supported by international institutions and organizations, have not managed this process appropriately. Therefore, even nine years after the initiation of the privatization process, there is still no privatization success story in Kosovo and the country has not introduced credible international companies into the market.

3.1. Government of the Republic of Kosovo

All central public enterprises are currently the property of the Republic of Kosovo and are managed by the Kosovo government. The Kosovo Energy Corporation, the Transmission System and Market Operator are central public enterprises, with the government the sole shareholder. The Kosovo government is the chair of two government commissions on privatization: the Project Steering Committee, which is responsible for the privatization of power generation,⁴ and the Commission for the Privatization of Distribution and Supply.⁵

According to the Law on Public Enterprises,⁶ the shares of a central public enterprise can be sold if the government adopts a written decision authorizing the Government Commission for privatization to proceed with the tendering process and the sale of shares, on the condition that this decision is adopted by a simple majority vote in the Kosovo Assembly.⁷ The sale of public enterprise shares has been implemented within several countries of the region in previous years, with the aim of realizing more efficient management and increasing competition due to private capital involvement. According to the Kosovo government, with the adoption of the Energy Strategy 2009–2018 the Kosovo Parliament has given permission to the government to proceed with the privatization of power generation and distribution. However, the Energy Strategy does not specify what percentage of shares may or will be sold.⁸ The Kosovo Assembly has yet to discuss this topic and provide clarity.

⁴ Executive Decision no. 2006/6 reached by the Special Representative of the Secretary General (SRSG) on the 17th of March 17, 2006.

⁵ Government Decision no. 08/39, of the 8th of October 8, 2008.

⁶ Law no. 03/L-087.

⁷ Article 9.1 of Law no. 03/L-087 on Public Enterprises.

⁸ The strategy for the privatization of KEK, which was discussed by the Kosovo Assembly in 2010, includes the option for the sale of shares.

3.2. Role of the World Bank

With the objective of creating a more suitable environment for private investors to develop the quarrying of lignite and the construction of new energy production capacity based on lignite, the World Bank Board of Executive Directors approved the “Lignite Power Technical Assistance Project (LPTAP)” on September 13, 2006, for which it initially allocated 8.5 million U.S. dollars.

This project was initially categorized as a B category project, which implies that it does not involve significant environmental issues. As such, from its initial stages the project has not focused on the critical environmental issues that accompany the development of the new power plant project named “Kosova e Re”, which foresees the opening of a new lignite mine and construction of a new lignite based power plant. The consequences of this inaccurate categorization have been negative, as no attention has been paid to assessing the environmental effects and overall coal costs related to the opening of the plant or its new lignite mine.

In order to ensure effective implementation of the LPTAP project, former SRSG Soren Jesen-Petersen established the Project Steering Committee (PSC).⁹ According to the executive decision, the Project Steering Committee comprised the prime minister, the minister of energy and mines (MEM), the minister of environment and spatial planning (MESP), the minister of economy and finance (MEF), the minister of labor and social welfare (MLSW), the Energy Regulatory Office (ERO), the Independent Commission for Mines and Minerals (ICMM), the Kosovo Trust Agency (replaced by the Kosovo Privatization Agency), the Office of SRSG, and the Head of UNMIK Pillar IV. The latter two have not been members since Kosovo declared independence in 2008.

The composition of the PSC has recently shifted with the change in the national administration. The former chairperson of the Project Steering Committee has made allegations against transaction advisers and certain monitoring members of the committee, such as the World Bank and USAID.¹⁰ This conflict between this former chairperson and other actors involved is further evidence of the controversy that surrounds this project, and brings into question whether the project as currently envisioned is the best solution for Kosovo.

Current members of the PSC include monitors from the donor community and institutions active in Kosovo: the World Bank, USAID, the European Commission Liaison Office (ECLO), the International Civilian Office (ICO), and the KfW banking group. **There was no place reserved in this committee for members of NGOs, not even as monitors. Furthermore, all the decisive documents for the project have remained unpublished and are unavailable to the public or to NGO’s for review.** The implication is that from the outset the project was not designed to be transparent. The European Parliament has raised the issue of NGO participation in these important activities¹¹ with the Kosovo Parliament, requesting the Kosovar institutions to allow more significant participation of these organizations.

Globally, the World Bank is currently looking at its own strategy on energy. Under the

⁹ Executive Decision no. 2006/6.

¹⁰ Interview of the MP Justina Pula in the “Koha Ditore” newspaper on the 25th and 26th of April 25–26, 2011.

¹¹ The conclusions of the interparliamentary meeting between the EU Parliament and Kosovo Assembly May 19–20.

proposed changes, the World Bank will continue to act as a supporter of energy projects but will not invest in coal-based energy projects in member states that are part of the International Bank for Reconstruction and Development (IBRD) or in countries classified as “*IDA-blend*.”¹² It will support coal-based energy projects in member countries of the International Development Agency (IDA), but only when all other alternatives have been exhausted.

Kosovo, an IDA member, is eligible to receive technical and financial assistance for development of lignite energy capacities. **However, according to the Criteria for Screening of Coal Projects under the Strategic Framework for Development and Climate Change of the World Bank, an investment of the World Bank in a coal-based project can happen only if all other alternative forms of energy have been taken into consideration, such as hydro, solar, wind, and geothermal energy, and other very specific measures are taken to address energy accountability. According to its own policy regulations, the World Bank must conduct adequate studies into each of these possibilities before engaging in a project based on coal.** These are the criteria for when a coal-based project can be considered:

1. There is demonstrated developmental impact of the project, including improving overall energy security, reducing power shortage, or increasing access for the poor
2. Assistance is being provided to identify and prepare low-carbon projects
3. Energy sources are optimized, looking at the possibility of meeting the country’s needs through energy efficiency (both supply and demand) and conservation
4. After full consideration of variable alternatives to the least cost (including environmental externalities) options, and when the additional financing from donors for their incremental cost is not available
5. Coal projects will be designed to use the best appropriate available technology to allow for high efficiency and, therefore, lower GHG emissions intensity
6. An approach to incorporate environmental externalities in project analysis will be developed.

In Kosovo, the World Bank has not followed these steps. The WB project in Kosovo is oriented almost exclusively toward lignite energy. This is made clear by the very title of the project—the Lignite Power Technical Assistance Project (LPTAP)—and by the name of its WB-created site on the Internet, which is “LignitePower.com.”¹³ The WB, in cooperation with the Kosovo government, is pushing for the privatization of energy generation without carrying out other necessary studies and before addressing the issue of energy accountability. There are as of now no WB studies on alternative energy sources, technical and commercial losses have not yet been tackled, energy efficiency is not a priority, and very little is being done in terms of developing projects that aim to address issues related to this field. It is not known what kind of technology will be used to reduce the carbon emissions from coal burning, and there has been no study or calculation of the cost-benefit ratio of this project in comparison to other possible projects.

¹² The “blend” category is used to classify countries that are eligible for IDA resources on the basis of per capita income but also have limited creditworthiness to borrow from the IBRD.

¹³ <http://www.lignitepower.com>.

Furthermore, WB has not provided any information related to the costs that Kosovo will have to pay for the Carbon emissions when it joins EU. This calculation has a significant economic impact. Being aware of the increasing tariffs EU countries will be paying for carbon emissions, the WB should at least provide different scenarios that account for this cost. Besides it, this then should be scaled with other projects that could be developed in order to provide an accurate overview of what projects would cost the Kosovar consumers less.

Therefore, before proceeding with the privatization of lignite and generating capacity, the WB should conduct the necessary studies on alternative energy and should invest in energy-efficiency measures and in reducing technical and commercial losses, all in line with its Operational Policies and its Climate Change Approach (Strategy).

3.3. International Finance Corporation (IFC)

The IFC is involved in the process of the privatization of the Kosovar Electricity Distribution and Supply Company (KEDS). Its role is to advise the Kosovo government on privatization options for the company. The IFC has recently submitted to the government a business plan that contains different scenarios under which KEDS can be privatized. This plan has not been discussed with NGO's or with the Kosovar public. The document itself contains very important information on what the future electricity tariffs will be for the consumers, and on how the government will be involved in terms of providing subsidies to the private company to cover commercial losses or in terms of necessary power imports, all of which affect the taxpayers and add to the final electricity tariff consumers will have to pay. Furthermore, this document contains important information relating to the Energy Market Model of Kosovo.

An area that is left out of discussion in this document¹⁴ is the issue of labor. This is of significance to the employees of KEK. Labor unions representing employees of the company have not yet been contacted by the IFC or the government to discuss the fate of current employees, in spite of their regular requests to meet with involved stakeholders and receive information on what is intended. According to USAID, which is also involved in the process through its advisers, up to two-thirds of current employees will not be retained within the new privatized company. If this is the case, the IFC has failed to comply with its own standards for the implementation of such projects.¹⁵

3.4. European Commission and the Energy Community

In 2002 the UN Mission in Kosovo (UNMIK) signed a Memorandum of Understanding for the Establishment of the Joint Energy Market in Southeastern Europe and for its integration into the European energy market, which is known as the "Athens Memorandum." This led to the establishment of the Energy Community, whose treaty was again signed by UNMIK on behalf of Kosovo on October 25, 2005.¹⁶

¹⁴ According to Bernard Atlan, head of the IFC team in the KEDS project.

¹⁵ Performance and Labor Standards of the IFC.

¹⁶ http://www.energy-community.org/portal/page/portal/ENC_HOME.

Under the Energy Community Treaty guidelines, Kosovo began the restructuring of KEK and the establishment of regulatory authorities. The restructuring process began in 2005,¹⁷ and continued in 2008 under the new government.¹⁸ The first stage of this process involved separating seven nonessential business units from the corporation and spinning them off as socially owned companies under the appropriate contractual terms. Later, coal production, energy generation, distribution, and sale were also spun off. On July 1, 2006, the public company for electrical energy transmission was established.

The process of spinning off the energy pyramid continued in 2008, with the separation of coal and energy production from its distribution and sale. This resulted in the establishment of a new public company for energy distribution and supply, the Kosovo Energy Distribution and Supply Company J.S.C. (KEDS), the shares of which were also held by the Kosovo government. The Kosovo government then decided to sell the shares of this new enterprise through a tender procedure.¹⁹

The European Commission Liaison Office (ECLO) is involved in the energy sector in Kosovo through the Secretariat of the Energy Community Treaty. The Secretariat represents the ECLO in meetings with commissions on the privatization of energy sources. The ECLO has expressed its concerns with the market model that is being discussed. It has concerns about both the possible limitations on competition and the environment, specifically in terms of implementation of EU Directives on the environment.

3.5. USAID

USAID bases its involvement in Kosovo on three main pillars: economic growth, democracy and governance, and youth and education. USAID has a stake in the Kosovo energy sector through its economic growth pillar. There are three main areas of USAID involvement in Kosovo:

1. Encouragement of private-sector economic growth
2. Strengthening of the economic institutions responsible for ensuring fiscal sustainability
3. Reliable energy supply

The main idea behind the privatization of the distribution and supply businesses came from USAID consultants in KEK J.S.C. These consultants were involved in the daily work of the corporation after 2006. Initially, their involvement frequently exceeded the terms of their contractual obligations.²⁰ Reference is made to their involvement in the tender process of the corporation, acting as bid evaluators, and their acting in a management capacity in specific departments (especially Auditing), among other activities. USAID is directly involved in the committee for the privatization of the Distribution and Supply Company.²¹ Additionally, USAID cooperates and assists the World Bank in the Technical Assistance Project for the new thermal power plant and the sale of the Kosova B thermal power plant.²²

¹⁷ Decision of the Kosovo government no. 2005/06.

¹⁸ Government Decision no. 04/36.

¹⁹ Government Decision no. 03/38.

²⁰ Reports in daily newspapers in Kosovo of the signing of tender evaluation processes by consultants.

²¹ <http://www.keds-piu.org/sq/project-advisors>.

²² http://www.lignitepower.com/index.php?option=com_content&view=category&layout=blog&id=36&Itemid=88&lang=sq.

4. KOSOVO ENERGY STRATEGY

In 2005 the Kosovo Assembly adopted an Energy Strategy for the years 2005–2015. This strategy was reviewed in 2009, and the Kosovo government sent for Assembly approval an updated Energy Strategy for 2009–2018. Following months of discussion in the Kosovo Assembly, the Energy Strategy for 2009–2018 was approved by the Kosovo Assembly on April 1, 2010.

Similar to the Energy Strategy for 2005–2015, this updated strategy also focuses mainly on lignite and the production of energy from lignite, leaving aside the question of alternative sources of energy. The Kosovo Energy Strategy 2009–2018 (hereinafter referred to as the Strategy) includes lignite capacity studies, assessment of the current situation in the two thermal power plants, and consideration of new possible investments in lignite, but does not include any study on alternative forms of energy such as wind, solar, and geothermal energy. Additionally, the Strategy does not include any detail on the possibility of implementing energy projects outside the country in an effort to establish a regional energy exchange. The objectives of eliminating high energy losses in the grid, both technical and commercial, and of improving energy efficiency have also been largely ignored. It must be said that Kosovo does not have a comprehensive strategy; it has a lignite strategy.

An energy strategy that is valid for the period up to 2018 should contain studies on alternative energy sources. These are especially crucial when considering that in accordance with the requirements of the European Union, EU member states and states aspiring to become part of the EU should achieve a 20 percent ratio of energy production from renewable sources, increase energy efficiency by 20 percent, and reduce CO₂ emissions by 20 percent by 2020, an energy agreement known as the 20-20-20 principle.

Likewise, the Kosovo Assembly should require the government to prepare a new strategy looking forward to 2020, specifically in terms of how to meet these requirements.

In addition to the strategy itself being incomplete, the process of its adoption has been irregular and questionable. In the Kosovo Assembly session of April 1, 2010, the Commission for Economy, Trade, Industry, Energy, and Telecommunication, as a functional commission, reviewed the Energy Strategy 2009–2018 and added its own recommendations for the adoption of the Strategy, which included these five items:

1. Lignite resources must be made available for utilization in accordance with the new energy generating capacity and in harmony with the development interests of Kosovo.
2. The government should create a legal environment for competition and encourage the free market in the energy sector.
3. The Kosova B thermal power plant is not to be included in the tender package together with Kosova e Re, but should remain operative in accordance with the Energy Strategy that was discussed within the Assembly.
4. Construction of new generating capacity is to be done on the basis of the long-term interests of Kosovo, beginning with 1,000 megawatts, with the possibility of constructing other capacity that meets the requirements and the energy balance of the countries in the region.

5. The Kosovo government must match the action plan with the Energy Strategy adopted for the period 2009–2018.

The Assembly adopted the Energy Strategy for 2009–2018, along with the five recommendations of the parliamentary commission, with changes to Recommendation 3. However, the current state of Recommendation 3 remains unclear. In the April 1, 2010, session, the Assembly considered numerous proposals, such as not including the Kosova B thermal power plant in the tender package with the Kosova e Re thermal power plant; involving a private investor in Kosova B different from the one in the new thermal power plant; and the government's proposal, that Kosova B be included in the tender package with Kosova e Re. The decision of the Assembly president, no. 03-V-272, reformulates Recommendation 3 by giving the government permission to include the revitalization of Kosova B in the tender package of Kosova e Re, even though in the initial strategy sent by the government to the Assembly no such possibility was expressly mentioned.

Recommendation 1 is also in question. According to the explanations of the parliamentary commission members, this recommendation was made with the objective of identifying what lignite mining capacity will be given to investors in relation to the power production capacity.²³ This recommendation was supported by the government. On the other hand, as we will see further on in this analysis, in the call for investor prequalification, the lignite mining capacity for the new quarrying site is included in the tender package.

Therefore, the Energy Strategy, in addition to including studies of alternative energy sources, should also be amended to clarify the decision of the Assembly on the inclusion of Kosova B in the tender package with Kosova e Re, to identify how lignite mining will be privatized, and to enforce the need to improve energy efficiency by reducing the loss of electric energy in the grid.

5. ENERGY MARKET MODEL

Another of the most important energy documents, in addition to the Kosovo Energy Strategy, is the Energy Market Model. In May 2010, the Kosovo government asked the Ministry of Energy and Mines and the Ministry of Economy and Finance to establish and instruct a working group to review and revise the Energy Market Model.²⁴ Two months later the government adopted a new Energy Market Model according to the proposal of that working group.²⁵ This concept was never made public, even after demands by civil society representatives.²⁶ Making this concept public and the inclusion of civil organizations in this

²³ See the discussion of the CETIET member Mr. Et'hem Ceku in the plenary session of April 1, 2010, on the Energy Strategy.

²⁴ Kosovo Government Decision no. 7/125 of May 18, 2010.

²⁵ Kosovo Government Decision no. 7/135 of July 28, 2010.

²⁶ In August 2010 the GAP Institute, as part of the GAP Monitor project on the reporting of Kosovo government decisions, forwarded a request to the MEM and the MEF to gain access to the Concept Electrical Energy Market Model adopted on July 28, 2010; however, it did not receive an answer to this request. Civil societies have requested the opening of the process on the energy market modelling in the meetings held with the European Commission, the World Bank, and USAID; however, there was no willingness to make this process transparent.

process are basic and necessary requirements for democratic decision making. Claims that the market model will include guarantees for investors that the government will cover all their losses for 20 consecutive years contradict the Kosovo government's arguments that privatization of distribution and generation will bring economic development. They also contradict the EU principles of a free market economy and bring the "free market" dangerously close to a monopoly.

In order to run the energy market as effectively as possible in the following years, the process must be made transparent; NGO and independent experts must be included in this process.

6. PRIVATIZATION PROCESS AND METHOD

The Kosovo government, with the support of its international partners, has divided the privatization of energy sources and infrastructure into two phases: 1) privatization of distribution and 2) privatization of generation. These two processes were initiated years ago, but their core elements have undergone continuous changes as result of government policies. This has caused some credible investors to lose interest and walk away from the processes.

The privatization process is now being hurried along because of Kosovo's budget crisis. The government has announced that the winner of the privatization process for distribution and supply will be announced in September 2011, with the financial settlement to be made in December 2011. For the privatization of generation, the winner is expected to be announced in March 2012 and the financial settlement to be made in October 2012.²⁷ It seems obvious that privatization is now more focused on budgetary issues than on the resolution of energy problems or on sustainable development.

6.1. Generation

The lignite-based thermal power project was initiated in 2005 by the Kosovo Democratic League (LDK) and the Alliance for Kosovo's Future (AAK), which were in power at the time. The project entailed the construction of a thermal power plant that would produce up to 2,100 MWh of electrical energy. Proposals were collected in 2006, and four large global consortiums were prequalified. This project was later delayed with the shift in government in 2008, a new governing coalition having been formed between the LDK and the Kosovo Democratic Party (PDK). When the project was reviewed again, plans were made for the construction of a lignite-based thermal power plant, but energy output was downgraded to 1,000 MWh. This project never moved forward. It came to a halt immediately after the Copenhagen Conference on World Climate in 2009, at which conference parties agreed on new regulations for any construction of coal-based thermal power plants. After this conference, the Kosovo government agreed to review the project once again, this time proposing a plant of 600 MWh capacity and also opening a new lignite mine (the Sibovc mine, which contains up to 990 million tons of lignite).

²⁷ Economic Development Vision 2011-201, adopted in the Kosovo government on April 18, 2011 (http://www.gapmonitor.org/data/Image/Aprovimi_i_Vizioni_i_Zhvillimit_Ekonomik.pdf).

Currently the World Bank is involved in Kosovo energy through its financial support of the Lignite Plant Technical Assistance Project (LPTAP). The role of the World Bank is expected to increase with the provision of a Partial Risk Guarantee and possible provision of financial support in the supervision of the works to open the new lignite mine and construction of new power plant. The managing body of the project is the Project Steering Committee, whose main duty is the coordination and supervision of the Project Management Group. The transaction adviser for this project is PricewaterhouseCoopers.²⁸ The Kosovo government has prequalified four international companies for this project:

- Consortium Adani Power/PT Adani Global from India and Indonesia
- Consortium AES Electric Ltd./Demir Export A.S. from the USA and Turkey
- The Park Holding Submission from Turkey
- Consortium PPC/Contour Global LLP from Greece and the UK/USA

Experts in this field and representatives of civil society have raised concerns over these companies' lack of experience in managing a project of these proportions. Additionally, the implementation of this project is in conflict with some EU rules that Kosovo has made a commitment to implement and that come from the Energy Community Treaty, including reduction in the levels of ash, NOx, SOx, and other particles. However, the levels of pollution and CO2 gas emission the plant may produce are not limited by any of the rules, as Kosovo is not a signatory of UNFCCC and the Kyoto Protocol.

Energy Community Treaty	Kosova e Re Thermal Power Plant	
	Fulfillment	Nonfulfillment
Acquis on energy	X	
Acquis on environment		X
Acquis on competition		X

Due to a lack of information, it is difficult to calculate the cost of constructing the new thermal power plant. Implied public health costs and mining costs, among other important data, are missing. The project in its current phase does not provide any meaningful information on the level of pollution that it will cause, and does not provide specifics on the technology that will be used. Without this data there is a significant threat to the well-being of affected communities. Furthermore, privatization of the existing Kosovo B plant to the same private investor represents creation of a power generation monopoly, which goes against the EU initiative to open up the energy market in the Balkans.

Furthermore, under the proposed development Kosovo will not be able to achieve targets set by the European Commission in its 20-20-20 principle. Kosovo currently has no plans to reduce CO2 emissions by 20 percent, improve energy efficiency by 20 percent, and use

²⁸ In addition to these, John T. Boyd Company and PB provide their services as transaction advisers, while Hunton & Williams and IPA cover the legal advising part and ERM & CSA Group provide advisory services on the environment.

renewable resources for 20 percent of its electricity production by 2020.²⁹ This new thermal power plant may present a serious problem as Kosovo looks to integrate into the EU, taking into consideration the EU objectives on significantly reducing CO2 emissions in the decades to come (20 percent by the year 2020, 50 percent by the year 2050, and 80 percent by the year 2080).

The construction of the thermal power plant also presents a serious risk for potential investors in the field of renewable energy. The discouragement of potential investors by government officials has already been recorded unofficially.³⁰

KIPRED, GAP, FIQ, and other civil organizations are concerned about the fact that the Kosovo Energy Strategy is not based on a full study of alternative energy and has few prospects for projects focused on developing cleaner energies. Furthermore, Kosovo has not developed a market model that provides healthy competition in the field. Additionally, full data on costs and benefits of the implementation of the projects in question are missing. By not providing complete and accurate data on the benefits and costs for the development of projects foreseen in its Energy Strategy, Kosovo risks developing projects that could be damaging to the country and that will, among other things, result in dangerous pollution of the environment, high health care costs, an inefficient energy system, lack of clean energy, and failure to achieve European objectives in the field of energy production.

6.2. Kosovar Electricity Distribution and Supply Company

The electricity distribution and supply businesses are part of the Kosovo Energy Corporation J.S.C (KEK), of which the Kosovo government is the sole shareholder. The government has decided³¹ to spin out the distribution and supply process from the lignite production and generation units of KEK and privatize it.

The privatization project is being managed by the Project Implementation Unit (PIU), which is a technical project management body that also serves as the technical secretariat of the Privatization Committee. The PIU reports directly to the Privatization Committee and is tasked with the daily implementation, management, and supervision of the project. The Privatization Committee, established by Decision 08/39 of the Kosovo government, is responsible for implementing the project in accordance with government objectives.

The privatization of electricity distribution networks in other Balkan countries has resulted in their sale to Western companies, as was the case with CEZ from the Czech Republic in Albania, EVN of Austria in Macedonia, and A2A SpA of Italy in Montenegro. The four consortiums that are currently prequalified to take over the production process in Kosovo are Calik Holding and Limak Holding from Turkey, Elsewedy Electric from Egypt, and Consortium TAIB – Yildizlar from Bahrain.

Also, though the stated goal of privatization is to increase efficiency and competition, with the privatization of the supply service and the distribution grid to a single entity, the Kosovo

²⁹ The Kosovo Energy Strategy 2009–2018 foresees that until 2016, only 7 percent of the energy produced will be from renewable sources.

³⁰ Interview with potential investors from whom bribes were demanded by government officials.

³¹ Through Government Decisions 03/08 and 08/09.

government will narrow the possibility of competition in the field of electricity supply in the future.

Most important, the business plan that is being discussed for the new company has not been discussed openly and remains unknown to the public. This documentation contains crucial information on future electricity tariffs, government subsidization in the coming years for power imports and for commercial losses, the plan on decreasing technical losses, and other important aspects that are directly connected with the tariffs consumers will have to pay in the end.

On the other hand, the project for the privatization of the distribution and supply businesses could contradict EU rules according to the Energy Community Treaty, as the privatization process partially conflicts with the *acquis* on energy and is completely in conflict with the *acquis* on competition.

7. ADDRESSING OPEN ISSUES

7.1. The 400 kV line with Albania

In the Kosovo Energy Strategy, there has been no consideration of the regional possibilities of coordination and cooperation of energy systems.

The Kosovo government has declared the 400 kV line Kosovo–Albania to be of general national interest.³² Investments in this line were first made at the beginning of May 2011 and will total approximately 34 million euro. The construction of this line is expected to improve the energy supply in Kosovo, especially in wintertime, and will enable the exchange of energy between these two countries. The German government has allocated a grant of 16.5 million euro, while the German Development Bank (KfW Entwicklungsbank) has issued a soft loan for the sum of 17 million euro for the construction of this energy line.

This project may affect Kosovo positively in terms of a more secure power supply during times when Albania has reserves. This development needs to be considered prior to going ahead with any other plans to establish new electricity projects in Kosovo.

7.2. Investments in Energy Efficiency

Kosovo belongs to the list of countries that are energy-nonefficient.³³ Very little progress has been made so far in improving energy efficiency. According to the Action Plan on Energy Efficiency 2010–2018, households are the biggest consumer of energy (63 percent). Approximately 35 percent of the energy being produced is used for heating dwelling spaces. This figure is indicative of the poor insulation in residential buildings throughout Kosovo. Therefore, any discussion of energy production should emphasize proper insulation of residential buildings. Improving energy efficiency reduces energy demand, which means a smaller plant would likely meet demand.

³² Decision 04/140 of the Kosovo government on August 18, 2010.

³³ The World Bank Group, *Energizing Sustainable Development: Energy Sector Strategy of the World Bank Group*, March 16, 2011.

Although achievement of the 20 percent measure of energy efficiency by 2020 is one of the requirements of the European Union, the Kosovo Action Plan for Energy Efficiency 2010–2018 set as an objective 9 percent by 2018. This objective is too low, and if this pace continues, Kosovo will not be able to achieve the energy-efficiency goal of 20% until 2030.

The Kosovo government and the Kosovo Parliament are considering the Law on Energy Efficiency, and it is expected to be adopted by the Assembly in the coming months. Comments on the content of this law have been offered by civil societies during the public debate period. The adoption of the law would pave the way for the establishment of the Energy Efficiency Agency and would ensure a more meaningful inclusion of municipal assemblies in increasing energy efficiency.

7.3. Reducing losses in the grid

Energy losses are currently very high. According to the Energy Strategy 2009–2018, from the gross consumption in 2007 of 4,582 GWh of energy, only 2,425 GWh (53 percent) was billed; from this billed energy, an amount covering only 1,843 GWh (76 percent) was collected. In 2007 the commercial losses were 1,333 GWh, equivalent to the entire production of Kosova A, all production from the hydro power plants and part of Kosova B production. These losses represent €99 million for KEK J.S.C., a sum that would have allowed it to cover all its operational costs and energy imports, as well as part of the capital investments that were made during this period. From 2007 to now, very little has been done to prevent these losses. The latest figures indicate that 42 to 43 percent of produced energy is lost.

Therefore, before new generating capacity is built, these commercial and technical losses must be stemmed. The government must assess the realistic demand for energy and what additional energy capacity is required.³⁴

7.4. Studies on alternative energy sources

According to its own Operational Policies, the World Bank invests in coal energy only in cases where studies conclude that a country has no other sufficient sources of energy. In Kosovo, the WB has not done any studies on solar, wind, or geothermal energy capacity. The Kosovo Energy Strategy 2009–2018 is a coal-based strategy. Even though the Strategy indicates that alternative studies will be carried out, so far these studies have not been initiated. The WB must conduct a study on alternatives before engaging with any lignite project, in accordance with its Operational Policies.

7.5. Resettlement

The construction of the new lignite-based power plant is connected to the opening of a new lignite mine, the Sibovc mine. A smaller mine, named Sibovc South West, which will be sold to the company that wins the bid for the construction of the new plant, has already been

³⁴ Item 3.2 of the Energy Strategy 2009–2018.

opened. The Kosovo Energy Corporation (KEK) has already bought land from the inhabitants in the area to start opening the large Sibovc mine. This acquisition has not been done in accordance with the World Bank Operational Policy on land acquisition and resettlement.³⁵ World Bank regulations apply to all procedures surrounding the Sibovc mine resettlement, which is why a Resettlement Policy Framework had to be endorsed by the government of Kosovo. The purchase needs to be reviewed and people who sold their property for the purpose of opening the new mine need to be paid fairly per World Bank policies.

Furthermore, Kosovar law currently lacks legislation that explicitly defines policy for involuntary resettlement. Law No.03/L –139 On Expropriation of Immovable Property comes closest to providing guidelines for issues of resettlement; that said, this law falls short of meeting the World Bank regulations on involuntary resettlement, as outlined in WB Operational Policy 4.12, in numerous ways. Reforms to current Kosovar law are of the utmost importance, as they could potentially provide the sole guidelines for the entire resettlement process in the new Sibovc mining area.

³⁵ WB OP 2.14 “Involuntary Resettlement.”

8. CONCLUSIONS

1. Privatization of public enterprises in Kosovo has been a nontransparent process, without any public discussions and without involving the civil society. One of the most nontransparent processes is that of the privatization of generation and distribution of electrical energy and energy market modeling.
2. The Energy Strategy 2009–2018 is a strategy based almost exclusively on lignite and has not been accompanied by necessary studies on alternative sources of energy. Its adoption on April 1, 2010, was both hasty and ambiguous.
3. Companies prequalified for the purchase of generation and distribution capacity do not have sufficient experience in managing large energy projects, especially not in the production of clean energy. Most of the bidding companies are non-European companies.
4. Technical and commercial losses of energy are high, and so far nothing has been done to prevent these losses.
5. The Action Plan on Energy Efficiency 2010–2018 does not fulfill the EU criterion of a 20 percent increase of energy efficiency by 2020.
6. The sale of the new lignite field and the inclusion of the Kosova B thermal power plant with the construction of the Kosova e Re plant go against the principles of a free market and competition. Accordingly, Kosovo risks creating a monopoly in the field of energy. This is in conflict with the European Union principles.
7. The involvement of the WB in the construction of a new thermal power plant before studies on alternative sources of energy are conducted and without addressing energy losses and energy efficiency goes against the principles of the World Bank itself, proclaimed recently in the draft strategy of the WB and stipulated in its Operational Policies.

9. RECOMMENDATIONS

1. The Energy Strategy 2009–2018 needs to be redrawn and amended with necessary studies on alternative energy sources to reflect the EU goals in the field of energy.
2. Studies on alternative energy sources must be conducted by the World Bank or under its supervision prior to the development of any other lignite-based project; these include studies on solar energy capacity, wind energy capacity, and energy capacity from geothermal sources.
3. Energy efficiency, reduction of technical and commercial losses of energy, and investment in transmission lines with neighboring countries need to be pursued prior to the development of any lignite-based project.
4. Concrete plans and appropriate implementation mechanisms for achieving EU objectives for 2020 need to be defined and implemented immediately, including increasing energy efficiency by 20 percent, producing 20 percent of energy from renewable energy sources, and reducing CO2 emissions by 20 percent.
5. The Energy Market Model should be made public and discussed with the public and independent energy experts prior to being approved and enforced. The market model should guarantee a sustainable energy supply, encourage competition, and promote the diversification of energy sources.
6. The process of privatization of generation and distribution should be transparent and should allow for the participation of civil society in privatization commissions.
7. The Kosova B thermal power plant should be separated from the package of the new thermal power plant project and should be an individual project involving private capital.
8. The separation of the distribution grid from the supply business needs to be analyzed and reviewed in order to ensure competition in the field of electricity distribution and supply to consumers in the future.

From: Justin Guay <justin.guay@sierraclub.org>
Date: Thu, Feb 23, 2012 at 4:36 PM
Subject: Kosovo Air Quality Monitoring and Public Health Impacts
To: plehouerou@worldbank.org, rkyte@worldbank.org, tahlers@worldbank.org
Cc: ichordrf@state.gov, hmuller@worldbank.org, Nezir Sinani <nezir.sinani@indep.info>, anagavci@usaid.gov, KisselME@state.gov, Helen.Walsh@treasury.gov, beth.urbanas@do.treas.gov

Dear Rachel Kyte, Philippe Le Hou rou, Ted Ahlers,

CC: Arlen Nagauci
USAID/Kosovo Office

Re: Monitoring and Modeling to Assure That Kosovo Lignite Thermal Power Plant Emission Do Not Adversely Impact Public Health and the Environment

We write to express our concerns and voice our objection to the use of intermittent, short term monitoring at site locations that represent less than the maximum impacted location as a basis for assessing the environmental and public health impacts of the proposed expansion of the Kosovo Lignite Thermal Plant. We note that in the December, 2011 revised work plan for the USAID technical assistance project[1] that USAID is funding additional intermittent air quality sampling at the request of the World Bank using passive diffusion samplers and DC powered portable medium-flow PM samplers. USAID has sponsored this type of monitoring in the past to identify potential points of concern with respect to human impacts, and enhance local capacity for siting; maintenance and data analysis. We support such efforts.

However, up until now the World Bank has committed to fund continuous analyzers at maximum impact sites to support the modeling that will be needed to properly assess the impacts of current and proposed thermal plant power generation options and alternatives. We assume, we hope incorrectly, that the proposal to expand the use of intermittent sampling to 7 sites at the request of the World Bank reflects a decision by World Bank to reduce or eliminate use of continuous monitors under the Kosovo LPTAP. We are also concerned that the proposed monitoring locations do not reflect the maximum impacted locations; which cannot be determined until the stack height is settled on.

Given the topography of the current and proposed thermal unit location one can assume that “normally” the plume from the plant will pass over those living nearest and impact those living several kilometers further from the site – and especially those living at or near the elevation of the stack. However, during atmospheric conditions conducive to the formation of inversion layers, what is known as “plume looping” can occur. When plume looping occurs, the

plume falls to earth quickly rather than rising and being dispersed. This creates a situation where those living near the plant are exposed to very high concentrations of pollutants, including the relatively high levels of metals that are typically found in poor or moderately controlled plants. Since plume looping occurs only infrequently, continuous monitoring over a long period of time is necessary to identify and quantify the acute risk to those living nearby. Continuous monitoring over a long period of time is also necessary to properly calibrate the dispersion models that predict the health impacts in locations where monitors have not been installed and to permit assessment based on multi-year weather data.

Because of this topography we anticipate that a properly implemented monitoring and modeling program will demonstrate that emissions from the Kosovo lignite thermal plant are causing exceedances of EU and World Bank ambient air quality standards. We believe that such modeling will also demonstrate that emissions from the plant will continue to cause unhealthy levels of air pollution, even if Kosovo B and the proposed new Kosovo unit meet EU emission standards. We believe that, as a consequence, it may be necessary to add EU BAT levels of controls to both the existing and proposed new Kosovo units. This will add hundreds of millions of euro to the estimated cost of the new Kosovo unit, for which we believe no need has been demonstrated. It may also be the case that a proper monitoring and modeling program will show that, even with BAT controls, emissions from the Kosovo plant will cause exceedances of health-based ambient air quality standards.

The cost of a proper monitoring and modeling program is insignificant compared to the hundreds of billions of euro that the proponents of the new lignite plant recommend be spent and passed on to ratepayers. This cost is also insignificant to the adverse public health impact (and associated cost) that would be created if additional lignite-fired generation is constructed in an area that does not permit free dispersion of the plume. Again, we hope that our interpretation of the recent USAID Task Order is incorrect and that the World Bank remains committed to continuous emission monitoring over a relatively long period of time, at locations that represent maximum adverse impact and a robust modeling program using the most recent version of AEROMOD or a similar program. We look forward to clarification from the World Bank on this issue and a reaffirmation of its policies on demonstration of ambient air quality impacts of its proposed projects.

Sincerely,

Justin Guay, Sierra Club
Nezir Sinani, INDEP

[1] Technical Assistance for Ambient Air Quality Institutional Capacity Building related to the Environmental Assessment for the New Kosovo Power Plant (Contract Number EPP-I-00-03-00004-00 Task Order No 11)

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Justin Guay

Washington Representative

Sierra Club International Climate Program

50 F Street NW Washington D.C., 20010

Tel: 202.664.6460

skype: guayguay2

twitter: Guay_JGuay

On Mon, Mar 12, 2012 at 3:40 PM, <mgorcaj@worldbank.org> wrote:

Dear Blerta,

The Regional Country Director Ms. Jane Armitage, will be visiting Kosovo soon, on March 13-17, 2012.

The World Bank Office in Kosovo would like to arrange a meeting for the Country Director during this visit with the Obiliq community members.

We would appreciate a lot if you could let us know if you would be available for the meeting on March 14 in 14:00 in World Bank premises.

(See attached file: driving_directions_to_WB_Office.JPG)

Thank you in advance and best regards,

LINDA

Mirlinda Gorcaj - Llalloshi

Program Assistant

The World Bank - Kosovo Office

Sat. 5282 ext.112

Tel: 381 - 38 224-454 (extn.112)

Fax: 381 - 38 224-452

E-mail: Mgorcaj@worldbank.org

<http://www.worldbank.org/kosovo>

[1] Technical Assistance for Ambient Air Quality Institutional Capacity Building related to the Environmental Assessment for the New Kosovo Power Plant (Contract Number EPP-I-00-03-00004-00 Task Order No 11)



**Renewable & Appropriate Energy Laboratory
Energy & Resources Group
University of California, Berkeley**

**** Version 1 ****

Sustainable Energy Options for Kosovo
An analysis of resource availability and cost

Daniel M. Kammen, Maryam Mozafari and Daniel Prull

January 15, 2012

Energy and Resources Group
Goldman School of Public Policy
Renewable and Appropriate Energy Laboratory
University of California, Berkeley
Berkeley, CA 94720-3050
<http://rael.berkeley.edu> | Tel: 510-642-1640

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Executive Summary

Today Kosovo faces critical energy and development choices that will impact the energy supply available to meet basic needs, and provide for economic growth. These choices will also impact the health of the population, determine the job creation potential of the energy sector, and impact the wider regional role that Kosovo may play in the European Community and European Union.

The Renewable and Appropriate Energy Laboratory at the University of California, Berkeley (<http://rael.berkeley.edu>) has conducted an assessment of the economic, social, and environmental costs and benefits of a set of energy scenarios for Kosovo. This work was facilitated by an exceptional level of openness and collaboration from the civil society and energy sector in Kosovo.

This assessment is an analytic treatment of the energy options that exist today and that can be created through investigation of new energy efficiency, renewable energy, and the wise use of fossil fuel resources. Key components of such a forward-looking energy plan for Kosovo, and arguably for the Balkans more widely, are: job creation and the support of indigenous industry; reduced exposure to energy supply and price risks through regional coordination and integration; and an energy mix that reduces human and environmental health risks and facilitates economic integration with the European Union.

To assess the options available, we have examined various energy and development scenarios for Kosovo based on the initial work of the Kosovar Ministry of Energy and Mining (MEM) and those proposed by multinational development agencies and by Kosovar civil society.

Base Case Energy Scenario

In this scenario, by 2020 the total energy generated from renewables is 1676 GWh – which is equivalent to 22% of the Total Net Generation. Generation from hydro power plants accounts for 17% of the Total Net Generation, while Bio+Wind+Solar contribute 5%. With this high percentage of power being generated by renewables, our simulation shows that very little power is required from TPP G3 (only 376 GWh in 2020 – which represents a capacity factor of only 11%).

Low-Carbon & EE Scenario

The capacities of renewable generation in this scenario provide the forecasted Total Consumption with a combination of local renewables and imports from neighboring countries. In this case net imports of electricity drop annually from 2010 - 2015. In 2016 – 2017 the generation within Kosovo is high enough that it becomes a net exporter of electricity to neighboring countries (with net exports of 152 GWh and 167 GWh, respectively). In 2018, when TPP A is de-commissioned, Kosovo once again becomes a net importer of electricity. However, at maximum, the net imports for the period 2018 – 2020 are half the current (2010) values. In this scenario 38% of the annual energy demand is met through renewable resources. This scenario also has the highest job creation of all the cases studied or presented.

Net Electricity Generation (GWh):											
Base Scenario	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TPP Kosovo A3-A5	1740	1740	1739	1739	1739	1740	1739	1739	0	0	0
TPP Kosovo B1-B2	3271	3461	3527	3568	3595	3627	3298	3275	3975	3998	4002
TPP Kosovo G1-G2	0	0	0	0	0	0	388	693	1448	1464	1483
TPP Kosovo G3	0	0	0	0	0	0	0	0	350	370	376
Total TPP	5010	5201	5267	5307	5335	5366	5425	5708	5773	5832	5861
Small HPP	157	229	302	374	447	519	592	664	737	809	881
HPP Zhur	0	0	0	0	0	0	401	401	401	401	401
Total HPP	157	229	302	374	447	519	992	1065	1137	1210	1282
Biomass	0	8	17	25	34	42	50	59	67	75	84
Wind	0	2	32	68	99	134	169	205	240	271	311
Solar	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total Bio + Wind + Solar	0	10	49	93	132	176	220	263	307	346	395
Total Renewables	157	239	351	467	579	695	1212	1328	1444	1556	1676
Total Net Imports	470	476	527	549	586	613	217	0	0	0	0
Total Net Generation	5637	5917	6144	6324	6500	6675	6854	7036	7218	7388	7537

Assumptions: 141MW Wind by 2020
140MW new hydro by 2020 (182 including existing capacity)
HPP Zhur online in 2016 with 15% cf
800kW PV by 2020
16.5MW Biomass by 2020

*Executive Summary Table 1:
Simulated Net Electricity Generation for 'Base Scenario' 2010-2020*

Net Electricity Generation (GWh):											
Low-Carbon & EE Scenario	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TPP Kosovo A3-A5	1740	1740	1740	1740	1740	1740	1740	1740	0	0	0
TPP Kosovo B1-B2	3271	3502	3510	3469	3416	3377	3351	3310	4612	4556	4485
Total TPP	5010	5243	5250	5209	5156	5117	5090	5050	4612	4556	4485
Small HPP	157	229	302	374	447	519	592	664	737	809	881
HPP Zhur	0	0	0	0	0	0	401	401	401	401	401
Total HPP	157	229	302	374	447	519	992	1065	1137	1210	1282
Biomass	0	84	168	252	335	419	503	587	671	755	838
Wind	0	2	83	165	251	333	419	501	587	674	761
Solar	0.00	0.01	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.13
Total Bio + Wind + Solar	0	86	251	416	587	752	923	1088	1258	1429	1599
Total Renewables	157	315	553	790	1033	1271	1915	2153	2395	2638	2881
Total Net Imports	470	359	341	324	310	286	-152	-167	204	188	165
Total Net Generation	5637	5916	6144	6324	6500	6675	6854	7036	7211	7382	7531

Assumptions: 281MW Wind by 2020
140MW new hydro by 2020 (182 including existing capacity)
HPP Zhur online in 2016 with 15% cf
8MW PV by 2020
165 MW Biomass by 2020

*Executive Summary Table 2:
Simulated Net Electricity Generation for 'Low-Carbon & EE Scenario' 2010-2020*

Job creation is an especially pressing issue in Kosovo as the country is facing double-digit unemployment rates and a fast growing youth rate entering the workforce. With a 46 percent unemployment rate and a low employment rate (29 percent), Kosovo has the weakest employment track record in Europe. Therefore we also examined the job opportunities each of these scenarios would present. Three scenarios were examined:

- Business As Usual (BAU): In this scenario the load till 2020 is supplied through the existing electricity resources (TPP A & B, Existing HPP), the new Kosovo C and Imports.
- Base Scenario: This is the same ‘Base Scenario’ identified above
- Low-Carbon Scenario: This is the same ‘Low-carbon Scenario’ identified above

Our analysis shows that the renewable energy sector generates more jobs per unit of energy delivered than the fossil fuel-based sector. There is a respective %18 and %27 increase in the number of total jobs created from the ‘Base’ and ‘Low-Carbon’ Scenarios compared to the BAU case.

	BAU	Base Scenario	Low-Carbon Scenario
Energy Technology	Job.yr till 2020	Job.yr till 2020	Job.yr till 2020
Biomass	0	33718	345621
Small Hydro	167	541181	541181
Large Hydro (Zhur)	0	206836	206836
Solar PV	0	22	223
Wind	0	94792	233937
Coal	2,812,529	2,449,411	2,233,061
EE			
Total (Job.yr till 2020)	2,812,696	3,325,961	3,560,859
Jobs vs BAU (%)	-	118	127

Executive Summary Table 3:

Total Job.yr created for ‘BAU’, ‘Base’ & ‘Low-Carbon’ Scenarios till 2020

We have also examined the total cost of electricity production in each scenario. The next table summarizes the cost for both capacity and annual production in each of the ‘Base’ & ‘Low-Carbon’ Scenarios. The cost of coal used in the table does not include externalities. A recent assessment of the cost externalities associated with a coal-dominated economy in Republic of South Africa shows that including just a few of the external costs in the true cost of coal-fired electricity generation would add between 237% and 459% to the 2010 electricity tariff. The energy generation mix in Kosovo is similar to that of South Africa in terms of the local coal mining to combustion value and impacts chain. This means a roughly 200% to 400% increase in the electricity cost in Kosovo should not be an overestimation.

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CASE	DESCRIPTION	PEAK MW	Total GWH	\$/W _{peak} ¹	\$/MWh ²	\$ million (Capacity)	\$ million (LCOE)	\$ million (LCOE w Externalities - 200%)	\$ million (LCOE w Externalities - 400%)	RE Generation (RE/Total) %	JOBS vs BAU
Base Scenario	TPP A3-A5		13916								
	TPP B1-B2		39598								
	TPP G1-G2	600	5476	2.6	94.8	1560.00	519.12	1038.25	2076.50		
	TPP G3	400	1096	2.6	94.8	1040.00	103.90	207.80	415.60		
	Wind	141	1530	1.95	97	274.95	148.41	148.41	148.41		
	Small Hydro	182	5710	1.5	86.4	273.00	493.34	493.34	493.34	22	118
	HPP Zhur (cf=15%)	305	2003	1.44	155.5	439.20	311.47	311.47	311.47		
	Residential PV	0.8	0.07	4.65	210.7	3.72	0.01	0.01	0.01		
	Biomass	16.5	461	2.4	112.5	39.60	51.86	51.86	51.86		
	Imports	295	3438		142		488.20	976.39	1952.78		
Total:					3630	2116	3228	5450			
Low-Carbon & EE Scenario	TPP A3-A5		13919								
	TPP B1-B2		40859								
	Wind	281	3776	1.95	97	547.95	366.27	366.27	366.27		
	Small Hydro	182	5710	1.5	86.4	273	493.34	493.34	493.34		
	HPP Zhur (cf=15%)	305	2003	1.44	155.4	439.2	311.27	311.27	311.27	38	127
	Residential PV	8	0.71	4.65	210.7	37.2	0.15	0.15	0.15		
	Biomass	16.5	461	2.4	112.5	396	518.85	518.85	518.85		
	Imports	295	2330		142		330.86	661.72	1323.44		
	Total:					1693	2021	2352	3013		

1 Values from Black & Veatch

2 Values from US Department of Energy- DOE/EIA-0383(2010)

Executive Summary Table 4:

Total cost of generation for ‘Base’ & ‘Low-Carbon’ Scenarios excluding externalities

As shown in *Executive Summary Table 4*, the capital cost of the scenario including a new coal power plant is more than double the cost of the low carbon scenario. Moreover, in the absence of externalities the LCOE for the ‘Base Scenario’ is above the cost for the ‘Low-Carbon Scenario’. If externalities are included, the cost of energy generation from the ‘Base Scenario’ (including the coal power plant) becomes as high as almost double the ‘Low-Carbon Scenario’.

In conclusion we find that:

- The business as usual path, dominated by an expanded use of low-quality coal, is not the least-cost energy option for Kosovo given the social cost of thermal generation. The coal dominant energy path also burdens future generations with an energy mix that is neither environmentally sustainable nor is it a path that maximizes job creation.
- A low-carbon path exists for Kosovo that integrates aggressive energy efficiency deployment, use of both large and small-scale hydropower, solar, biomass and extensive use of wind energy while reducing human and ecological damage. This path whilst delivering 38% of the energy demand through renewable resources can also provide almost 30% more jobs than a business as usual path and it does so at an estimated cost savings of 50% relative to a base-case scenario that includes a new coal power plant.
- To make the low-carbon path viable, two key commitments are vital: 1) to implement aggressive energy efficiency programs (including reductions in technical losses) and enabling policies to do so; and 2) to explore and implement opportunities to make the hydropower capacity a resource year-round, and to develop wind or other renewable energy sources that can address peak energy demands, potentially utilizing wind and hydropower in concert, and/or to bring significant geothermal power into the energy mix.

1. Kosovo's Electricity Sector

1.1 Current Electricity Balance in Kosovo

1.1.1 Power Generation

Approximately 98% of power generated within Kosovo is from two lignite coal-fired thermal power plants (TPP), 'Kosovo A & B'. These plants are owned and operated by Korporata Energetike e Kosoves (KEK): Kosovo's vertically integrated power utility is responsible for the mining of coal, generation, distribution and supply. TPP Kosovo A consists of five units (A1-A5), with a total installed capacity of 800 MW, although units A1 and A2 are no longer operational and considered unfit for further commissioning [11]. TPP Kosovo B consists of two larger units (B1 and B2) with an installed capacity of 678 MW. Data on the installed and available capacities, age and remaining hours [1,11] of TPP Kosovo A & B is presented in *Table 1* below.

Name	Installed Capacity	Available Capacity		First Year	Retirement	Remaining Lifetime
	(MW)	min (MW)	max (MW)	Yr	Yr	Hours
Kosova A1	65			1962	2007	
Kosova A2	125			1965	2002	
Kosova A3	200	100	130	1970	2017	61,320
Kosova A4	200	100	130	1971	2017	61,320
Kosova A5	210	100	135	1975	2017	61,320
Kosova B1	339	189	260	1983	2030	175,200
Kosova B2	339	189	280	1984	2030	175,200

Table 1: Capacities of Existing TPP within Kosovo (2010)

The availability of TPP Kosovo A & B is low due to frequent system failures, disconnections and repairs. This has been particularly burdensome for the manufacturing and construction sectors, where in 2009, firms reported an average of 43 outages per month [12]. These outages resulted in losses equivalent to 17% of the firms' annual sales, compared to less than 4% for similar transition economies. The low availability of TPP A & B is also due, in part, to damages incurred during the war. Damages in low-pressure rotors of units B1 and B2, for example, have reduced the maximum available capacities to 240 MW and 280 MW, respectively.

Figure 1 below shows the gross and net generation per month in 2010 from TPP Kosovo A & B [4]. Here, the net generation is equivalent to the gross generation less the auxiliary power consumption needed to support the operation of the power plant (generating auxiliaries).

- Total annual gross generation from TPP Kosovo A & B (2010) = 5041 GWh
- Total annual net generation from TPP Kosovo A & B (2010) = 5010 GWh

The relative net generation from TPP Kosovo A & B in 2010 was 1740 GWh (35%) and 3271 GWh (65%), respectively.

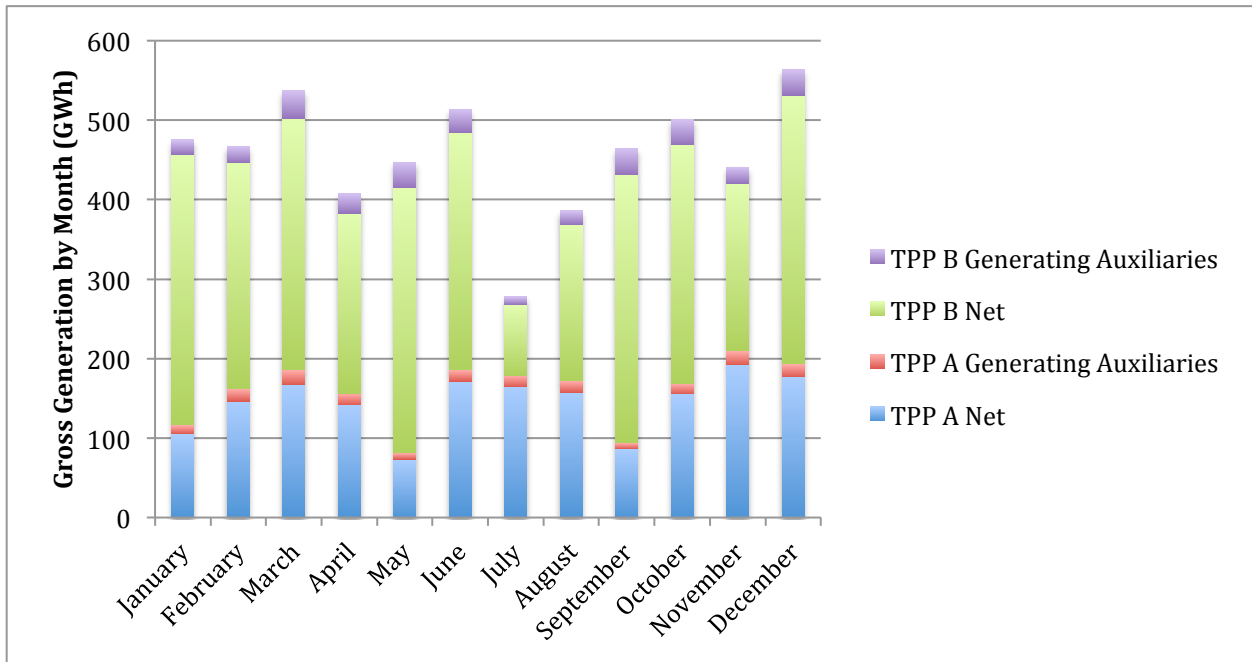


Figure 1: Gross Generation by Month from TPP A & B (2010)

Hydro power plants (HPP) accounted for the remaining ~2.2% of the net power generation within Kosovo in 2010. Data on the installed capacities of existing HPP within Kosovo was obtained from [3]. This data is reproduced in *Table 2* below.

Generating Unit	Capacity (MW)	
	Installed	Net
Ujmani/Gazivoda	35	32
Lumbardhi/Kozhnjer	9	8
Radavc	0	0
Burimi/Istog	0	0
Dikance	1	1
Total	46	42

Table 2: Installed Capacities of Existing HPP within Kosovo (2010)

HPP Ujmani/Gazivoda (HPP Ujmani) is managed by the public enterprise, Iber-Lipenci. This plant, which feeds directly to the transmission network, had a net generation of 114 GWh in 2010 [4] (corresponding to a capacity factor of ~41%). The remaining small HPP (all owned by private investors [3]) connect to various locations in Kosovo’s distribution network. In aggregate, these small HPP had a net generation of 42 GWh (capacity factor ~48%).

1.1.2 Transit, Imports and Exports

KOSTT j.s.c (KOSTT) manages and operates the electricity transmission system of Kosovo and is responsible for the bulk transmission of electric power on the high voltage electric networks. KOSTT was established in 2006 as a result of the restructuring of the energy sector under the

Energy Community Treaty for South-eastern Europe [3]. Data on the transmission lines operated by KOSTT is presented in *Table 3* below [13].

Voltage (kV)	Number of lines	Total Length Installed (km)
400	6	182
220	13	232
110	45	728
TOTAL		1,142

Table 3: Existing KOSTT Transmission Lines

In addition to transmission within Kosovo, the KOSTT system interconnects with neighboring Montenegro (400 kV line), Macedonia (400 kV line), Albania (220kV line) and Serbia (400 kV, 220 kV and 110 kV lines) allowing transit, imports and exports of electricity. Figure 2 shows the transmission network in Kosovo.

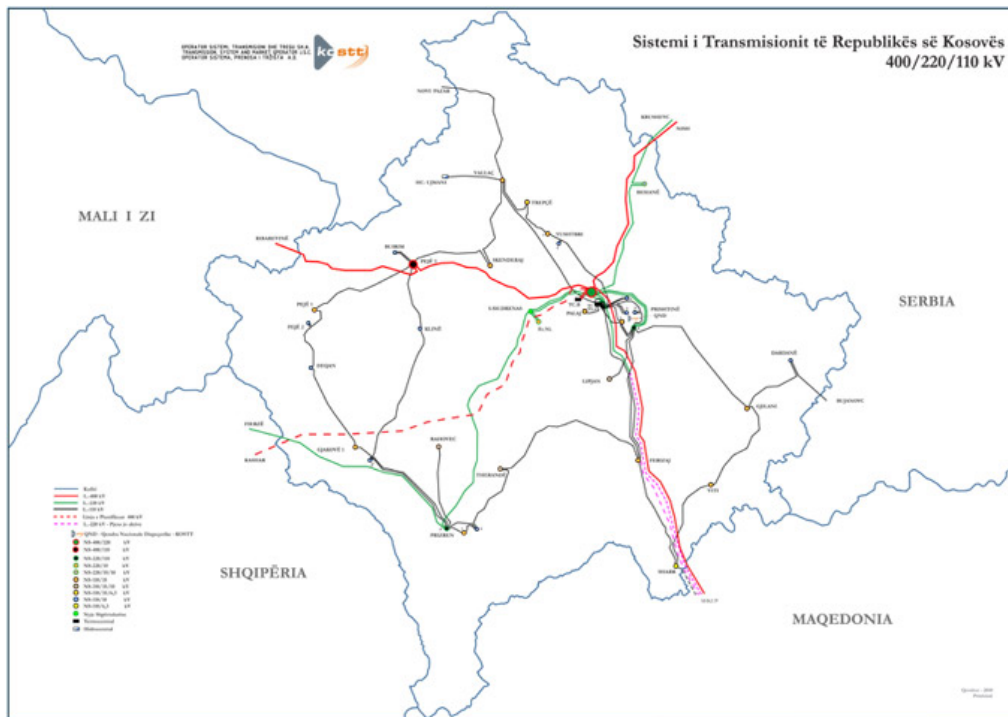


Figure 2: Map of transmission network in Kosovo [KOSTT]

The maximum capacity of energy exchange between Kosovo and its neighbors (calculated as the sum of the natural transmission capacity of each line) is ~1740 MW [11]. However, the net capacity for energy exchange is likely lower than this maximum, due to physical constraints in the lines, substations and generation capacities of neighboring countries.

Table 4 below shows the total flows of energy in and out of the KOSTT transmission system in 2010 from interconnections with neighboring countries [4]. The difference between the ‘Interconnections IN’ and ‘Interconnections OUT’ each month is net import of electricity into the KOSTT electricity grid. These imports are crucial for balancing demand in the country with

supply from its TPP and HPP as described in the previous section. Table 4 shows that net imports of electricity from interconnections with neighboring countries in 2010 totaled 470 GWh. The transit¹ of electricity (travelling through the KOSTT network) to neighboring countries thus totaled 3113 GWh.

	Interconnections IN (GWh)	Interconnections OUT (GWh)	Net Imports (GWh)
January	399	242	157
February	306	205	101
March	348	314	34
April	298	239	59
May	214	231	-17
June	158	271	-113
July	376	264	112
August	350	318	32
September	263	316	-53
October	271	254	17
November	297	214	83
December	304	245	59
TOTAL	3,583	3,113	470

Table 4: Total Flow of Electricity through Interconnections with Neighboring Countries (2010)

1.1.3 Transmission System Flows

Figure 3 below shows the total energy (GWh) flow through KOSTT transmission system in 2010 via net generation from TPP Kosovo A & B (90%), net generation from HPP Ujmani (2%) and Net Imports (8%) from neighboring countries as detailed in the previous sections. In aggregate, these sources supplied a total of 5594 GWh to the transmission system.

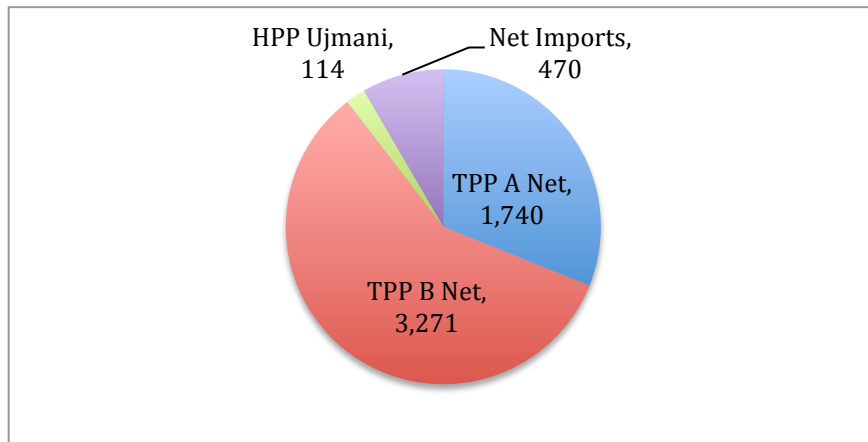


Figure 3: Total Energy Supplied to KOSTT Transmission System in 2010 (GWh)

¹ Transit is defined by ENTSOE as an energy flow that occurs in a country, which is neither the source nor the sink of the energy flow. The energy flow arrives in the grid over one border and leaves country over one or more borders [14].

Transmission system losses in 2010 totaled 131 GWh (2.3% of the net energy input). This includes the losses caused by transit. Transmission system losses have declined over recent three years as shown in *Table 5* below. These improvements are due to numerous investments over the past decade.

Year	Losses (GWh)	%
2008	215	4.3%
2009	174	3.3%
2010	131	2.3%

Table 5: Transmission System Losses (2008 - 2010) [3]

Three large industrial customers, Ferronikeli, Trepça and Sharrcemi consume electricity directly from the KOSTT transmission network. In 2010, the total consumed by these direct customers was 701 GWh [4]. Thus, the remaining 4762 GWh was supplied to the distribution system.

1.1.4 Distribution System Flows

Kosovo's electric distribution system is owned and operated by Korporata Energetike e Kosoves (KEK). The net electricity supplied to the distribution system in 2010 totaled 4804 GWh, with 42 GWh being supplied directly by small hydro power plants (HPP) and 4762 GWh being supplied by the transmission system. The destination of this energy flow through the distribution network is shown in *Figure 4* below [3].

Technical losses in the distribution system are high (782 GWh) accounting for 16% of the total energy input. These losses occur due to inefficiencies in the network elements, lack of investment, inadequate maintenance and a large proportion of obsolete equipment [3].

Figure 4 shows that of the total 4804 GWh supplied to the distribution system in 2010, 3599 GWh (~75%) was available for sale to customers. However, only a total of 2673 GWh was actually billed to these customers [4].

Out of the available 2673 GWh, 185 GWh was supplied to the northern municipality of Mitrovica. This territory has been subjected to conflicts since the end of the war in 1999 and hence is currently beyond the reach of the billing system. The remaining 926 GWh are classified as 'commercial' or 'un-accounted-for' energy losses and occur due to misuse of electricity [3]. This electricity was delivered to customers (or taken from the power system) without being paid-for or metered. The primary factors that cause this large volume of commercial losses are deficiencies in billing procedures and non-collection of unpaid bills [11].

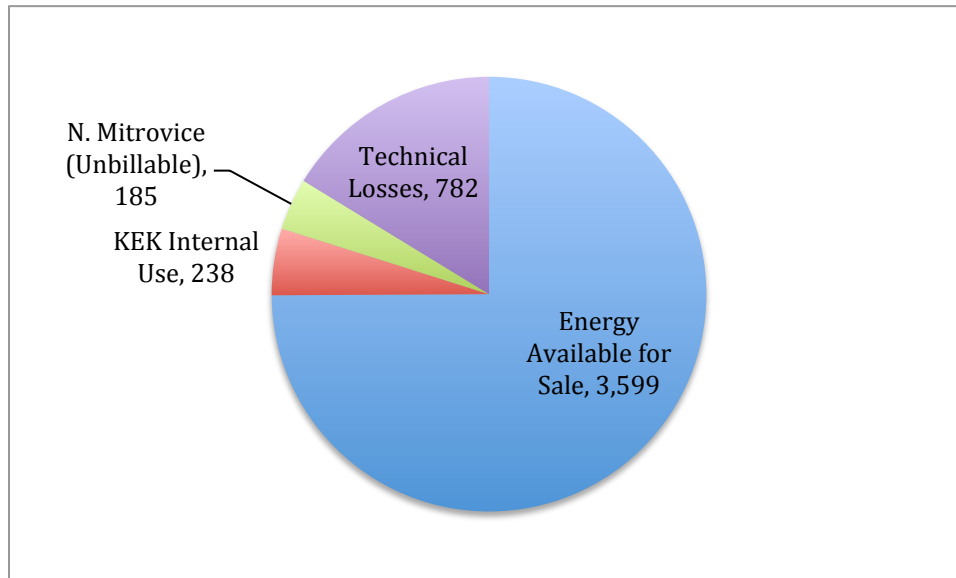


Figure 4: Energy Available (Sale & Other Flows) through Distribution Network in 2010 (GWh)

1.1.4 Electricity Balance

The net energy flows in and out of the Kosovo electricity system are summarized in *Figures 5 and 6*, respectively. Summing the total in either figure gives an estimate of the total consumption of electricity in the Kosovo grid in 2010 of 5636 GWh².

Total losses in the system are 1839 GWh, which account for ~33% of consumption (2.3% from transmission system losses, 14% from technical losses in the distribution system, 16% from commercial ‘un-accounted-for’ losses).

The ratio of transit of electricity (estimated to be 3113 GWh in Section 1.1.2) to total consumption is ~55%. This ratio is very high and leads to transmission system losses as well as network congestion. Although an ITC (inter transmission-system-operator compensation) mechanism has been established to compensate transmission system operators for this transit, Kosovo has not been included due to issues with Serbia [3]. As a result, losses caused by transit are instead recovered through fees to regulated customers.

It should be noted that this electricity balance was done based on data from the supply-side, and thus reflects the actual energy delivered to customers. However, often the true demand for electricity in Kosovo is higher than the energy available. As a result, Kosovo is subject to daily periods of planned outages during hours when the energy demand cannot be met by supply due to insufficient generation, transmission capacity or financial means for energy imports (4).

² ENTSOE defines ‘electricity balance’ as the consumption of electricity computed from the supply side. It is calculated as the sum of Net Production plus Net Imports. Due to the fact that consumption is computed from the supply side, the electricity balance includes distribution and transmission system losses [14].

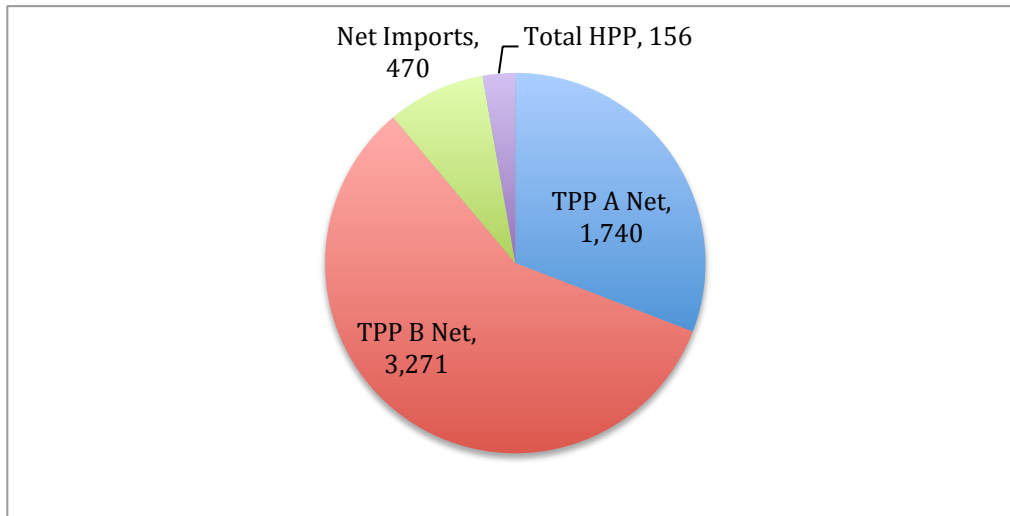


Figure 5: Net Energy Inputs to Kosovo Electricity System 2010 (GWh)

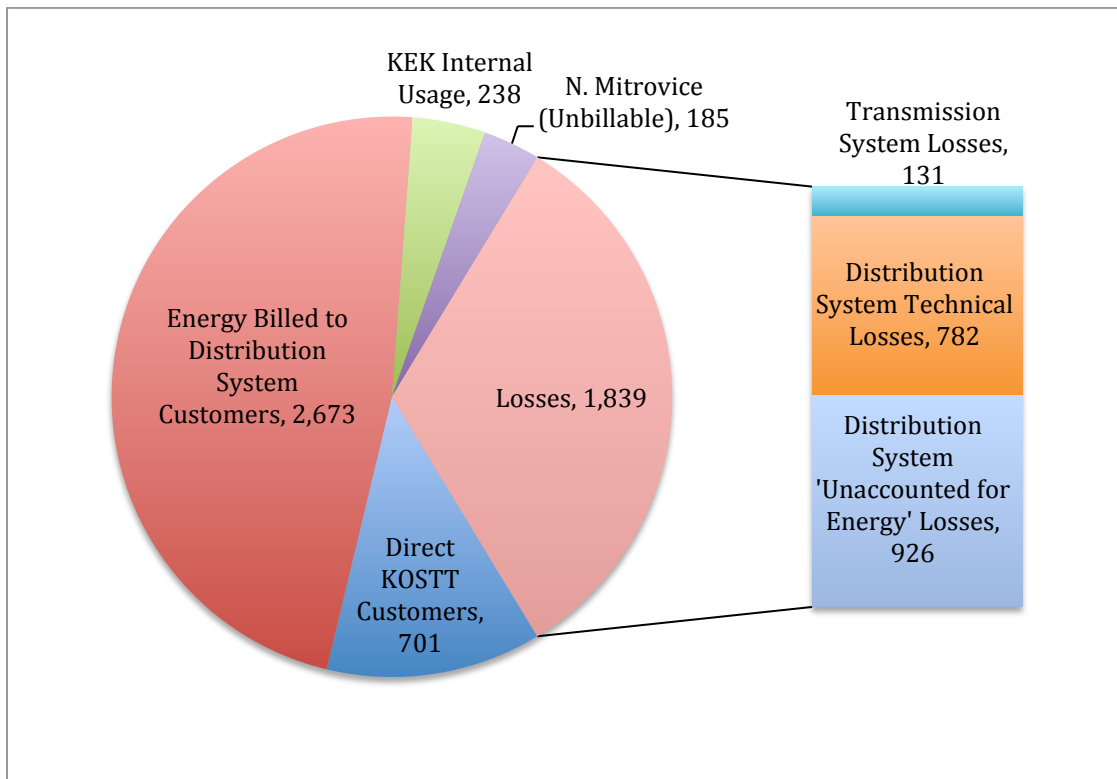


Figure 6: Net Energy Outputs from Kosovo Electricity System 2010 (GWh)

1.2 Forecast of Demand and Generation, 2010-2020

1.2.1 Demand Forecast

The long-term energy balance for Kosovo is modeled by KOSTT. This balance includes forecast scenarios for the growth in electricity demand based on growth in GDP and correlations with

electricity use, implementation of efficiency programs, more efficient billing and other economic factors [15,11]. Three forecast scenarios, which estimate the total consumption and peak load for 2011-2020 are presented in the general adequacy plan [11]: a ‘base scenario’ corresponding to annual GDP growth of 3.2%, a ‘low growth’ scenario corresponding to annual GDP growth of 1.7%, and a ‘high growth’ scenario corresponding to annual GDP growth of 4.7%. *Table 6* below shows KOSTT’s estimates for the Gross Demand (GWh) and Peak Load (MW) corresponding to these three scenarios [3]. The estimates for Gross Demand and Peak load in 2010 shown here are based on data from [4] and [3], respectively.

Total Consumption (GWh)	2010*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average Growth
Base Scenario	5636	5916	6144	6323	6499	6674	6853	7035	7210	7381	7530	3.04%
High-Growth Scenario	5636	6010	6280	6550	6832	7112	7404	7655	7916	8177	8430	4.10%
Low-Growth Scenario	5636	5760	5904	6046	6167	6290	6416	6544	6655	6762	6890	2.21%

Peak Load (MW)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average Growth
Base Scenario	1126	1175	1190	1220	1250	1283	1310	1340	1365	1390	1410	2.53%
High-Growth Scenario	1126	1183	1215	1250	1290	1330	1375	1415	1460	1510	1550	3.41%
Low-Growth Scenario	1126	1145	1155	1175	1195	1215	1240	1260	1280	1300	1320	1.91%

Table 6: Demand Forecast Scenarios (2011-2020)

The values in *Table 6* reflect the ‘gross latent consumption’ that includes the demand for electricity, which was previously shed due to forced outages [15]. The Base Scenario, High-Growth Scenario and Low-Growth Scenario are derived from a complex mathematical model which inter-relates corrective factors to the correlation of electricity demand to GDP [11]. Key factors include:

- Implementation of Law No.04/L –016 on Energy Efficiency
- Reduction of commercial losses as a result of more efficient billing and metering procedures
- Forecast of technical losses in the transmission and distribution networks
- Survey of expected growth from industrial and service sectors

The Statement of Security Supply for Kosovo [3] separates the Base Scenario for Gross Consumption into six categories: residential, industrial, services, distribution system losses, transmission system losses and commercial losses. This breakdown is replicated in *Table 7* below. Similar data was not available for the High-Growth and Low-Growth scenarios.

Analysis of the KOSTT Base Scenario in *Table 7* yields the following observations:

- Technical losses in the distribution are forecast to decrease from 14% to 11% of total consumption from 2011-2020
- Commercial losses in the distribution system are forecast to decrease dramatically from 17% to 1% of total consumption from 2011-2020
- Transmission system losses are forecast to remain at ~3% of the total consumption during the period 2011-2020
- The Total Losses (sum of technical, commercial and transmission) are forecast to decrease from 34% in 2011 to 15% in 2020. This represents an annual average decrease of ~6%

The KOSTT Base Scenario presented here is used through the remainder of this report as a basis for forecasting the energy demand in Kosovo.

Base Scenario of Total Consumption (GWh)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Domestic consumers (residential)	2051	2248	2513	2704	2893	3095	3258	3413	3560	3701
Commercial consumers (services, etc)	568	627	675	711	762	816	860	904	946	995
Industrial consumers	1266	1332	1348	1405	1445	1487	1524	1575	1631	1674
Technical losses in distribution	818	886	895	891	898	898	890	874	862	846
Commercial losses	1032	860	695	585	467	343	281	216	148	75
Transmission losses	180	190	197	203	209	215	222	228	235	241
TOTAL	5915	6143	6323	6499	6674	6854	7035	7210	7382	7532
Technical losses in distribution (% of total consumption)	14%	14%	14%	14%	13%	13%	13%	12%	12%	11%
Commercial losses (% of total consumption)	17%	14%	11%	9%	7%	5%	4%	3%	2%	1%
Transmission losses (% of total consumption)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Total Losses (GWh)	2030	1936	1787	1679	1574	1456	1393	1318	1245	1162
Total Losses (% of Total Consumption)	34%	32%	28%	26%	24%	21%	20%	18%	17%	15%

Table 7: Estimation of System Losses in the KOSTT Base Scenario for 2011-2020

1.2.2 Generation Forecast

In July 2009, the Government of Kosovo articulated a five-pronged strategy to meet rising energy needs. This strategy is comprised of: (a) private sector investment in a new lignite-fired power generation project, (b) privatization of the electricity distribution and supply business, (c) private sector participation in rehabilitation and environmental upgrade of the Kosovo B Power Station (derated capacity of about 560 MW), (d) decommissioning of the Kosovo A Power Station by 2017, and (e) development of renewable resources (including small hydropower plants, wind, solar, biomass).

With TPP Kosovo A reaching the end of its useful life by 2017, the development of a new thermal power plant (New Kosova Power Plant) is proposed to begin between 2011/2012 [11]. The design for this plant is comprised of two units (G1 and G2) with installed capacity of 2x300 MW. The first of these units is expected to become operational in late 2016, and the second unit six months to a year later [3,11]. The Ministry of Energy and Mining in Kosovo also estimates that a third new power plant (G3) with a capacity of 400 MW will be needed to meet growing electrical demand by 2018 [15].

In addition to the proposed New Kosova Power Plant, upgrades are planned to improve the capacity of TPP Kosovo B. It is anticipated that these units will be rehabilitated in 2016 – 2017,

including investments required to meet the emission standards required by the European Union Directive for Large Combustion Power Plants [3,16]. It's estimated that the placement of new rotors in both B1 and B2 will provide for a reduction of unused capacities to only 10 MW per unit, in reference with their nominal capacity [11].

The Ministry of Energy and Mining (MEM) has determined indicative targets of renewable energy resources to be integrated into the Kosovo power grid through the Governmental Program for Clean and Efficient Energy. They program has presented a base scenario which includes expanded hydro resources, wind, biomass and solar photovoltaics [3,11,15]. This scenario is presented below as it pertains to Kosovo's energy strategy. Our investigation of the potential for each of these resources is examined further in Section 2 of this report.

MEM 'base scenario' for renewable energy resources to be developed by 2020:

- The MEM base scenario foresees the development of a known accumulating hydro power plant project, HPP "Zhur", with an installed capacity of 305 MW. This project is expected to be operational by 2016. It is estimated that HPP Zhur could produce ~398 GWh per annum [11].
- Development of an additional 20 'small' HPP is expected to contribute 140.3 MW by 2020 [3,11].
- Three private wind developers have submitted project applications to KOSTT with a combined total capacity of 157 MW [11.1]. MEM estimates that from these projects, 141 MW of wind energy capacity will be installed on the Kosovo grid by 2020 [3].
- The development of biomass and urban waste fuelled power plants is envisaged to start in 2012, with progressive capacity development reaching 16.5MW by 2020 [11].
- Estimates of the potential for installed solar photovoltaic (solar) capacity are low – primarily due to a perception of too-high capital costs [11]. The MEM base scenario envisages only 0.8 MW of solar capacity on the Kosovo grid by 2020 [3].

The MEM base scenario for new generation capacity is summarized in *Table 8* below.

	Unit	Installed Capacity	In Operation
New TPP	G1	300.0	Q1 2016
	G2	300.0	Q1 2017
	G3	400.0	Q1 2018
New Renewable Energy Capacity	HPP Zhur	305.0	Q1 2016
	Small HPP	140.3	Q1 2010 - Q4 2020
	Wind	141.0	Q1 2010 - Q4 2020
	Biomass	16.5	Q1 2012 - Q4 2020
	Solar	0.8	Q1 2017 - Q4 2020

Table 8: MEM Base Scenario for New Generation Capacity (2010 – 2020)

2. Electricity Resources: Availability, Cost and Environmental Quality

2.1 Fossil Fuels

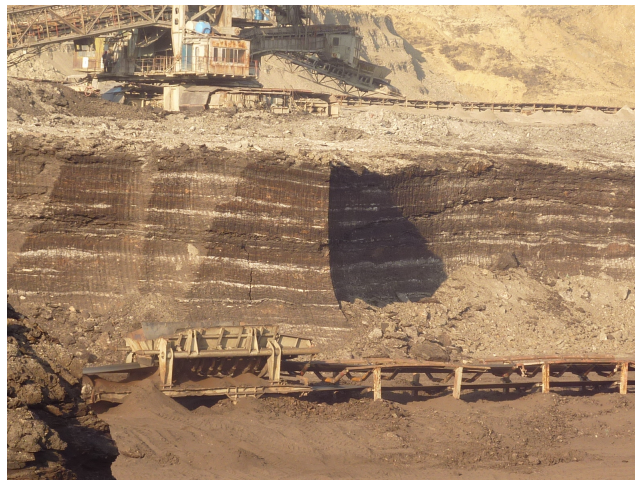
2.1.1 Coal

Coal is the primary source for electricity generation in Kosovo. Over 90% of the demand is supplied through the two thermal power plants Kosovo A & B. Domestic lignite reserves are estimated to amount to 12.5 billion tones, of which 10.9 billion tones are exploitable. Kosovo's coal reserves consist of Lignite (also known as brown coal). Lignite has the lowest carbon content and the highest amount of moisture. It's geologically younger than other forms of coal, and mostly used in power generation. Brown coal is the dirtiest coal type as the process converting it into usable energy is very intensive. Though abundant the quality of the lignite is fairly poor and its use in electricity generation releases an average of 5.8 million tons of CO₂ into the atmosphere annually. With the planned construction of a new power plant, it is possible that Kosovo could be responsible for annual CO₂ emissions as high as 22.5 million tons [16].



Above: Coal in the Kosovo mine

Below: Kosovo coal mine





Above: Kosovo A

Below: Kosovo B



2.1.2 Oil & Natural Gas

Kosovo has no domestic crude oil resources. In 2010 Kosovo imported 566,000 ton of oil products. The one small oil processing plant has a capacity of around 100,000 tons per year, which uses gasoline and some lighter distillates as raw material and produces diesel, residual fuel oil and LPG. In 2010 this plant provided less than 4% of the total oil product import [11,1]. Kosovo is not linked to an operational natural gas supply network. A connection to natural gas supply would be an important option to diversify fuel supply in the country and to increase security of supply, but there are currently no projects planned. Gas supply and consumption in Kosovo is therefore limited to bottled LPG (liquefied petroleum gas) [11.1].

2.2 Hydroelectricity

In this study two different hydro resources will be analyzed: An aggregate of distributed small hydro resources (river run) and a larger proposed utility scale hydro power plant.

2.2.1 Small Run-of-the-River Hydro

One feasibility study on the water resources for small hydro power plants [7] shows a potential of 63 MW aggregated hydro capacity with a total annual production of 300 GWh. *Table 9* shows the proposed HPPs and their respective capacities. The ERO Office in Kosovo foresees an even larger development of small hydropower plants (> 16) reaching a capacity of 140.3 MW by 2020 [3].

River	HPP	Capacity (MW)	Production (GWh)
Peja	Kuqishtë	3.9	19.0
	Drelaj	6.2	29.6
	Shtupeq	7.6	37.2
Decani	Bellaje	5.2	26.1
	Decani	8.3	40.7
Llocani	Llocani	3.1	14.4
Erenik	Mal	3	18.6
	Erenik	2	9.5
	Jasiq	1.9	9.9
Plave	Dragash	2.2	11.5
	Orcush	5.6	29.2
Prizreni	Recan	1.5	7.9
Lepenc	Brezovica	2.1	11.5
	Lepenci	3.5	19.1
Bajska	Bajska	0.3	1.7
Bistrica	Batare	1.1	5.6
Kacandoll	Majanc	0.6	3.1

Drini+Decani	Mirusha	4.6	28.1
Total Small HPPs		62.7	322.8

Table 9: The proposed Small HPP

2.2.2 Large dam-based hydropower

The proposed hydropower plant Zhuri will be located in the southwest of the municipalities of Prizren and Dragash, with an estimated capacity of 305 MW and an average annual production of ~ 400 GWh [3]. The data for the two Zhur plants are presented in *Table 10*.

	Capacity (MW)	Production (GWh)
Zhur 1	2 x 131	342.2
Zhur 2	43	55.39
Total	305	397.6

Table 10: Capacity and Estimated Production for Proposed Zhur HPP

This 305 MW power plant (estimated capacity factor ~15%) has been proposed as a peaking plant to help compensate for the variability in Kosovo's demand. A common practice in developed countries is to designate gas fired plants as peaking power plants due to their ability of quick adjustments in production. However in the absence of a gas reserves or a gas pipe line in Kosovo, and the inability of the existing coal power plants to quickly and reliably adjust production, the Zhur plant can be operated as a peaking plant. Moreover the profile of this hydro resource is similar to the demand profile (coincidental peaks) and this brings a big advantage to the HPP. *Figure 8* shows the location of the proposed small HPPs as well as the Zhur power plant.

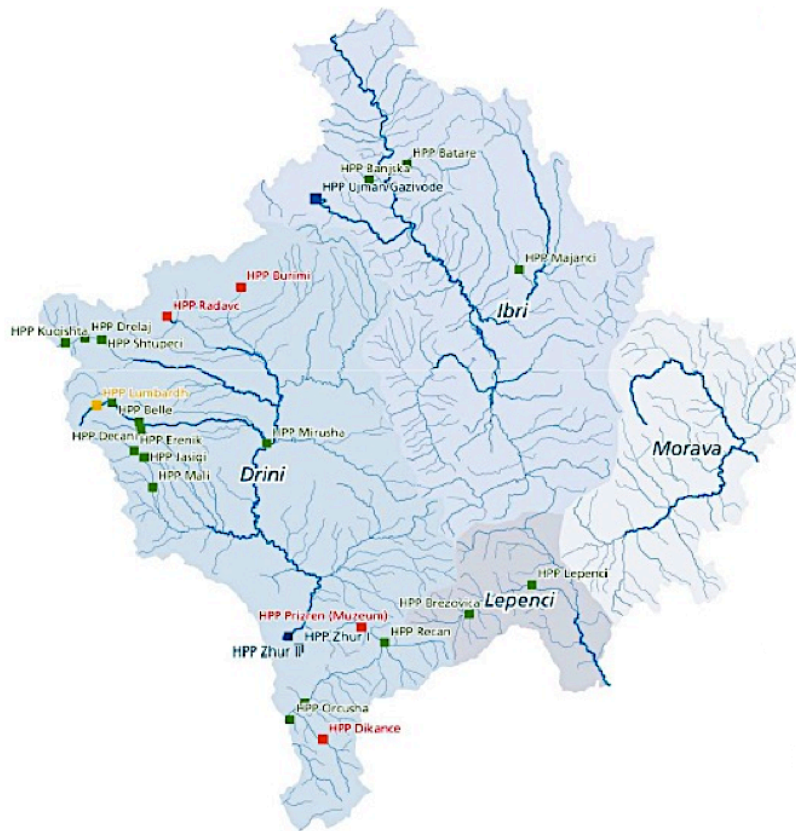


Figure 8: Spatial Distribution of Proposed HPP

2.3 Wind

Studies on the wind energy potential of Kosovo vary widely. One study [8] was based on meteorological data collected at 10 potential project sites throughout the country. 7 of these 10 sites were found to have wind speeds too slow for commercial viability. Of the remaining 3 locations, the highest wind speed was measured at BBUD, in Budakova. The modeled wind resource at this location is shown in the Figure 9. The estimated annual average wind speed at 38 meters is estimated to be 6.9 m/s.

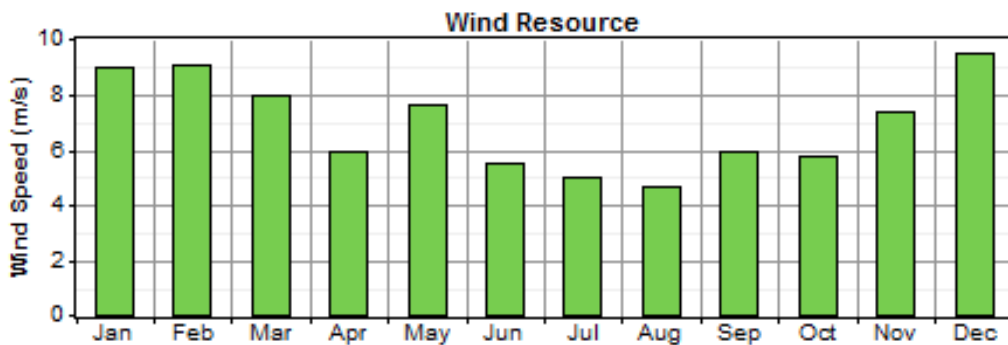


Figure 9: Annual wind speed in Budakova

Another study [8] uses computer modeled data to calculate the wind speed in the municipalities of Lipjan and Dukagjin however since the values are not real measured values we base our model on the more reliable measured data for Budakova. Figure 10 shows the two potential sites for wind farms.

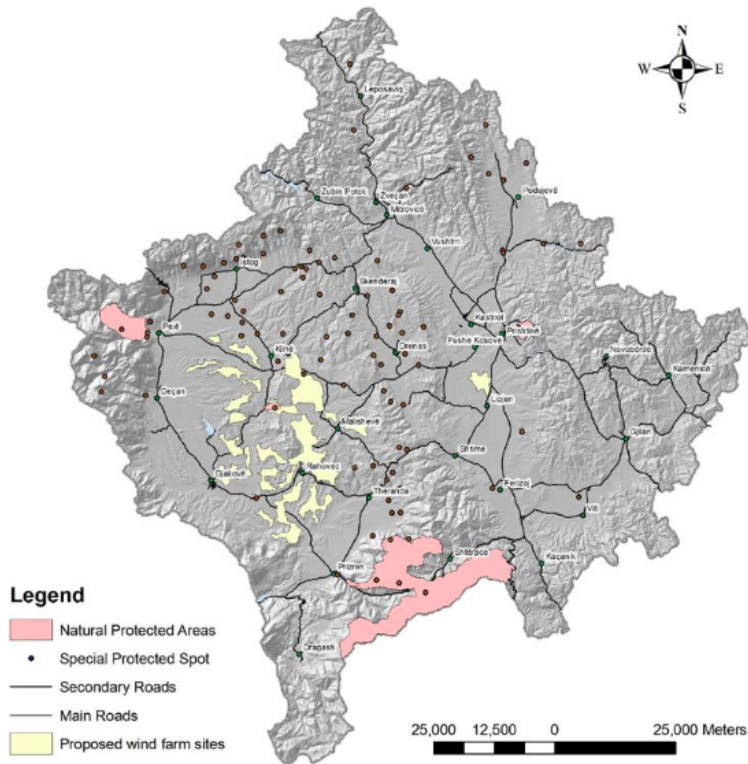


Figure 10: Available sites for potential wind farms

2.4 Solar

The annual radiation on a solar collector panel directed towards south and with an optimum inclination of 35 degree (calculated optimum inclination) varies between 1550 kWh/m²/year and 1650 kWh/m²/year in Kosovo [10]. This range can be seen on the solar map for the South East Europe in *Figure 11*. The variation between the various municipalities is less than 10%. For design purpose it can be considered that the solar radiation is the same all over Kosovo and equal to 1600 kWh/m²/year for an ideally located solar collector.

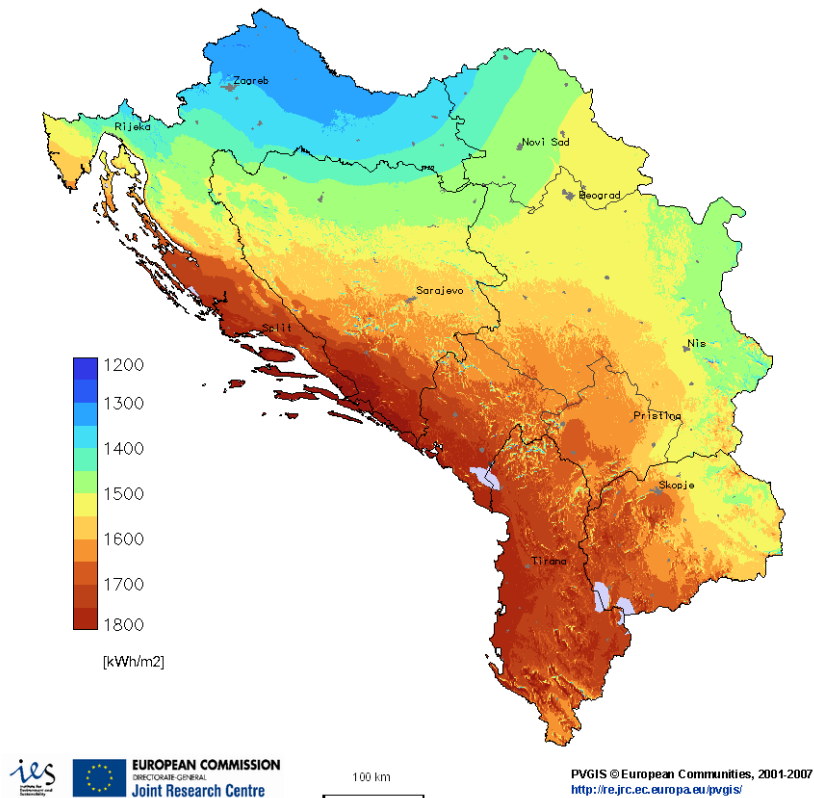


Figure 11: Solar radiation in Balkan region, optimum inclination and direction

2.5 Biomass

The theoretical energy potential from biomass resources is shown in Table 11. [9]

Type of resource	Resource	GWh/y
Biomass, wood	0.9 mill m3	2812
Biomass, livestock	352.000 cattle, 152.000 sheep/goats	1363
Biomass, agriculture	0.30 mill ton straw	1200
Solid waste	0.44 mill ton	1229
Total		6604

Table 11: Theoretical renewable energy resources in Kosovo, GWh/year

Assumptions made for the theoretical energy potential are:

- Max annual sustainable wood cut, 30 % moisture, oak and beech
- All livestock waste utilized and maximum theoretical biogas production,
- All straw utilized, 15% moisture
- All solid waste utilized

The study estimated the total theoretical annual energy from biomass resources within Kosovo to be ~6600 GWh/yr.

2.6 Geothermal

There are no studies available on the geothermal potential within Kosovo, however the neighboring countries (Macedonia and Serbia) have a history of using geothermal as an energy resource. In Macedonia the potential for geothermal energy production is estimated at 210,000 MWh per year and currently there are more than 14 geothermal sites used for heating load. In Serbia there are more than 60 geothermal systems with temperatures lower than 150 C. The estimated energy reserves of geothermal resources in Serbia are around 800 MWh [20]. *Figure 12* shows the heat flow map and distribution of major convective geothermal systems in Serbia and Kosovo.

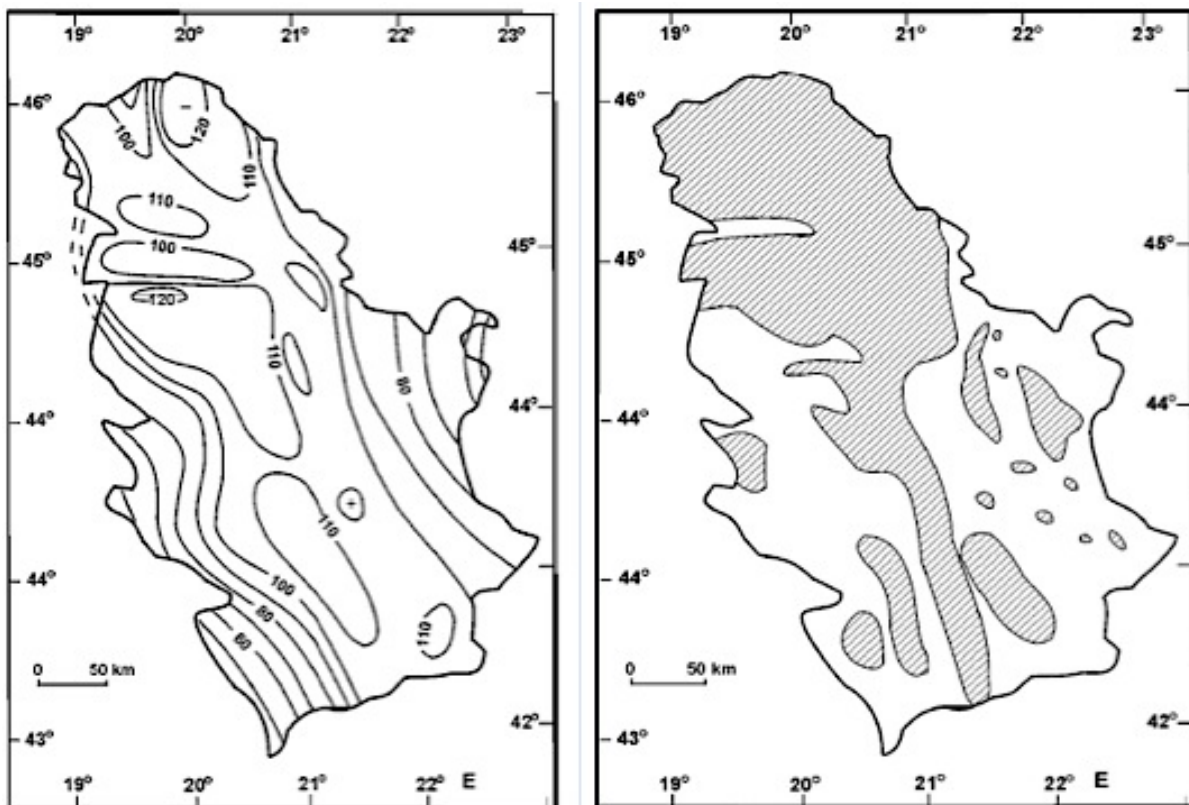


Figure 12: Heat flow map & distribution of major convective geothermal systems in Serbia and Kosovo

2.7 Energy Efficiency

The World Bank has listed Kosovo as a non energy-efficient country, and very little progress has been made to improve energy efficiency to date. European Union (EU) integration requirements include that Kosovo must improve energy efficiency by 20 percent by 2020, according to a USAID study in 2008 [21] found that laws and regulations regarding energy efficiency in Kosovo, and policies and programmes to stimulate implementation of EE projects (for example, subsidies, strategies and information programmes) have been only partially implemented or not

implemented at all. And up until the date of this report no countrywide assessment of energy efficiency potential appears to be undertaking.

In 2010 United Nations Development Program (UNDP) carried out an energy assessment on the municipality of Dragash that showed a potential of 26 GWh saving per year from Energy Efficiency measures such as (CFL lighting, Thermal Insulation) [22]. *Table 12* shows the energy consumption and CO₂ emission prior and post study.

	Energy Consumption (GWh/y)	CO ₂ Emission (Ton/y)
Before EE measures	123.7	41376.6
After EE measures	97.78	37013.6
EE Gains	25.92	43.63

Table 12: energy consumption and CO₂ emission before & after EE measures

It's worthy to note that the total energy saving in Dragash was equal to 20% of consumption. This shows a large energy saving potential if the EE measure were to be adopted throughout the country.

2.7.1 Grid Efficiency

As discussed in Section 1.1, the transmission and distribution grid inefficiencies in Kosovo contribute to a large energy loss in the country. In 2010 total losses in the system constituted around ~33% of consumption. From the total of 33%, 2.3% were transmission losses, 14% were technical losses in the distribution system and 16% commercial 'un-accounted-for' losses). This figure does not include the unbilled energy supplied to the municipality of Mitrovica.

This means the Kosovo citizens who actually pay their bills are in fact bearing the extra cost for this 33% energy loss. This is not only a large inefficiency in the system but also raises equity and consumer right issues.

2.7.2 Demand-Side Management

KEK has started installing digital meters throughout its jurisdiction. So far from over 400,000 KEK customers 30,000 have received smart meters. This program aims to reduce electricity theft throughout Kosovo. (Awaiting data from KOSTT on consumption data prior/after meter installation, 40+ meters have been installed at Ferronikeli. Sharcemit and Trepca Sep 2008).

2.8 Funding Mechanisms

A variety of opportunities exist to provide support for sustainable energy development in Kosovo. The European Union, the World Bank (including the International Development Association), and the efforts of individual donor nations working individually or ideally in partnership are a few among all. The energy sector in Kosovo will require significant investment,

both financial, and also in terms of capacity support, irrespective of what energy plan is pursued. In this report, we assess a wide set of costs and of benefits for different paths. Of particular long-term interest and importance are efforts built around regional cooperation in terms of both resource management (e.g. cross-boarder sustainable hydropower and wind energy, and potentially geothermal resource exploration and utilization), but also of cooperative regional power pools.

3. Power Supply Simulation Analysis

Kosovo’s electric power generation system was modeled using HOMER – a hybrid system optimization software package developed by the U.S. National Renewable Energy Laboratory. HOMER simulates a power system’s physical behavior (60 minute time step) and life-cycle cost.

The simulations of Kosovo’s electric power system presented in the sections below reflect data gathered and synthesized from a number of sources. Key assumptions are stated in each section.

3.1 Simulation of Kosovo’s Current Electric Power System (2010)

3.1.1 Key Assumptions

Data on the diurnal cycle of electricity consumption was modeled based on data obtained from [5]. A representative daily consumption profile is shown in *Figure 13*. This data was used along with monthly consumption data from [4] to create a model of the total electrical consumption.

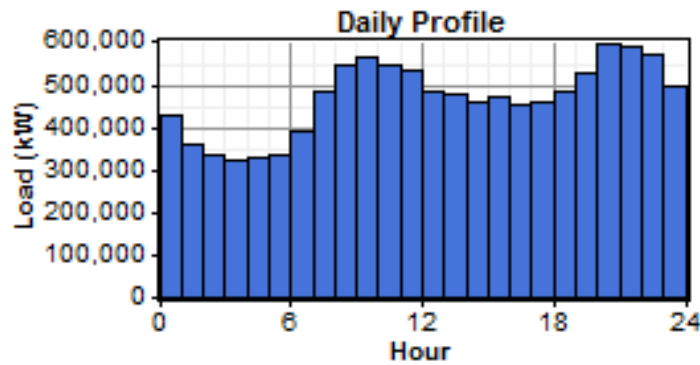
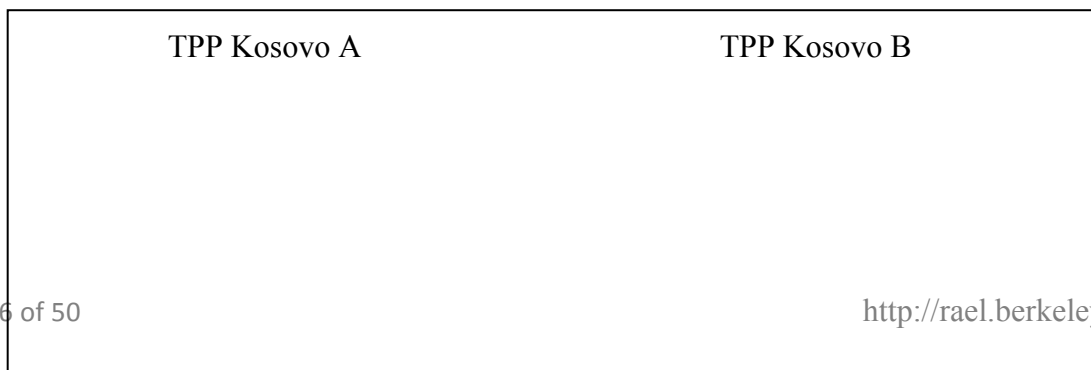


Figure 13: Modeled Daily Consumption Profile (2010)

The efficiencies of TPP Kosova A and B were modeled based on data obtained from Pg. 219 of [2]. The modeled efficiency curves are shown in *Figure 14* below. Note the higher efficiency of the newer Kosovo B plants. The resulting full-load fuel consumption of the TPP Kosovo A & B was estimated as 1.629 kg/kWh and 1.491 kg/kWh, respectively.



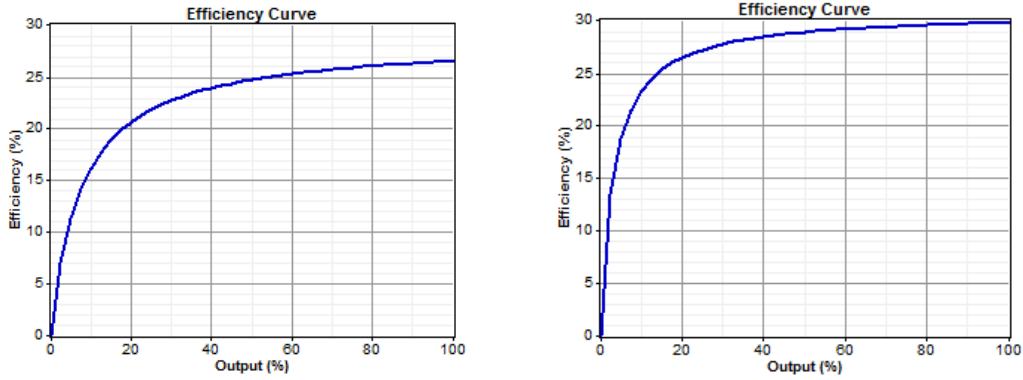


Figure 14: Modeled Efficiency Curves of Existing Kosovo TPP (2010)

Data from [2] was also utilized to model the lignite fuel used in TPP Kosovo A & B. The modeled lignite fuel properties are summarized in Table 13.

Lignite Fuel Properties	Kosovo A	Kosovo B
Lower Heating Value (MJ/kg)	7.75	7.86
Density (kg/m ³)	753	753
Carbon Content	24.1%	24.0%
Sulfur Content	0.82%	0.77%

Table 13: Summary of Modeled Lignite Fuel Properties (2010)

Emissions factors for ‘NO_x’ and ‘Particulate Matter’ were modeled based on data from [2]. Emissions factors for ‘CO’ were modeled based on formulae presented in [6]. Emissions factors for ‘Unburned Hydrocarbons’ and ‘Fuel Sulfur’ were modeled to reflect estimates presented in pp. 7-10 of [1]. The resulting emissions factors are presented in Table 14 below. For this analysis, it was assumed that the emissions factors for Net Imports of electricity from neighboring countries match those of Kosovo B.

Emissions Factor	TPP Kosovo A	TPP Kosovo B	Net Imports
Carbon Monoxide (g/kg of fuel)	0.13	0.13	0.13
Unburned Hydrocarbons (g/kg of fuel)	200	200	200.00
Particulate Matter (g/kg of fuel)	6.62	0.87	0.87
Proportion of Fuel Sulfur Converted to Particulate Matter	67%	67%	0.67
Nitrogen Oxides (g/kg of fuel)	1.16	2.53	2.53

Table 14: Summary of Modeled TPP Emissions Factors (2010)

3.1.2 Simulation Results

The total consumption data presented in Section 1.1 (Figure 6) was separated into two loads in HOMER:

- ‘Total System Losses’ which incorporates the transmission system losses, technical and commercial losses in the distribution system

- ‘Primary Energy Consumption’ which incorporates the energy billed to customers, KEK direct usage, energy supplied to N. Mitrovice and direct KEK customers

The resulting monthly profiles for these two loads are summarized in both *Figure 15* and *Table 15* below.

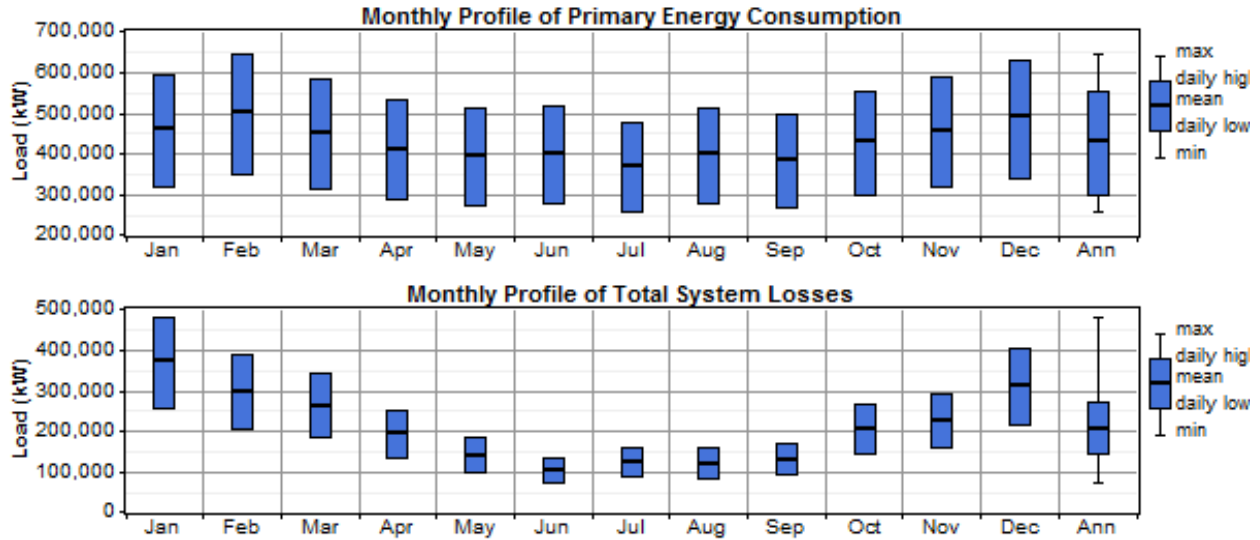


Figure 15: Modeled Monthly Primary Consumption and Loss Profiles (2010)

	Days	Total Primary Consumption		Total Losses	
		Total (MWh)	Average (kWh/day)	Total (MWh)	Average (kWh/day)
January	31	347,394	11,206,258	279,085	9,002,742
February	28	340,004	12,143,000	203,192	7,256,857
March	31	339,196	10,941,806	198,318	6,397,355
April	30	299,740	9,991,333	141,865	4,728,833
May	31	297,207	9,587,323	106,780	3,444,516
June	30	291,543	9,718,100	75,983	2,532,767
July	31	277,773	8,960,419	93,567	3,018,290
August	31	299,718	9,668,323	91,054	2,937,226
September	30	281,001	9,366,700	94,531	3,151,033
October	31	322,624	10,407,226	155,923	5,029,774
November	30	332,770	11,092,333	165,126	5,504,200
December	31	367,100	11,841,935	234,912	7,577,806
Total		3,796,070		1,840,336	

Table 15: Modeled Monthly Primary Consumption and Loss Profiles (2010)

The existing hydro power plants (HPP) in *Table 2* were modeled to match monthly production estimates given in [4]. Simulation results show a mean output of ~ 18 MW with an overall capacity factor of 42% as seen in both *Figure 16* and *Table 16*. The total production from existing HPP is estimated at 156 GWh/yr (2010).

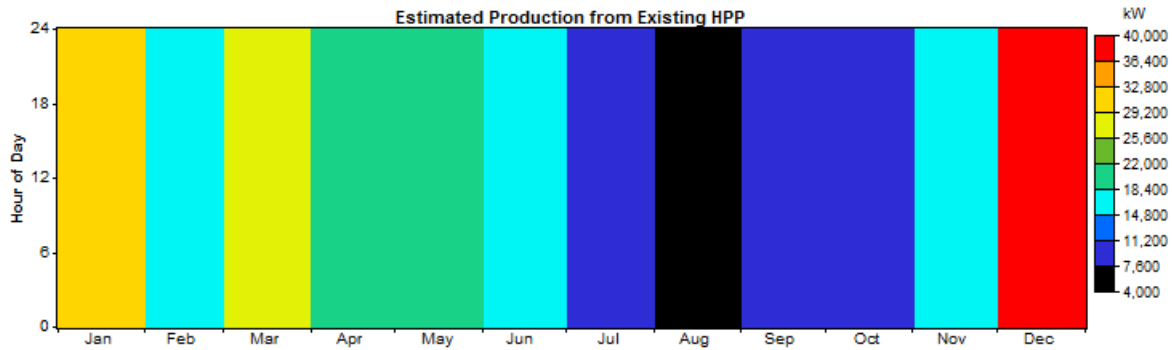


Figure 16: Modeled Monthly Generation from Existing HPP (2010)

Modeled Production of Existing HPP	
Nominal capacity	42 MW
Mean output	18 MW
Capacity factor	42 %
Total production	156 GWh/yr

Table 16: Modeled Monthly Generation from Existing HPP (2010)

Kosovo’s electricity generation system was modeled given the key assumptions presented in Section 3.1.1 as well as the net generation capacities specified in *Tables 1, 2 and 4*. Simulation results for the total net generation and fuel use of each generator is shown in *Table 17* below. HOMER optimizes the dispatch of each generator according to its efficiency, thus the relative percentage of power generated by each of TPP Kosovo A3 – A5 may not match actual figures. However, the total annual energy generated by TPP A matches data given in [11]. The same holds true for results presented for TPP Kosovo B.

Production	Net Generation (GWh/yr)	% of Total Generation	Fuel Consumption (million tons)
HPP	156	3%	
KSA3	750	13%	1.39
KSA4	603	11%	1.11
KSA5	386	7%	0.71
KSB1	1,991	35%	3.36
KSB2	1,280	23%	2.16
Imports	470	8%	
Total	5,637	100%	8.74

Table 17: Summary of Modeled Net Generation and Fuel Use (2010)

The simulated greenhouse gas emissions from Kosovo’s current generation system are presented in *Table 18*. In addition, the assumed Global Warming Potential (GWP) of each pollutant is shown for reference. The GWP is a relative scale which compares each gas to an equivalent mass of CO₂. Multiplying each pollutant by its GWP and summing them together gives an estimate of

the total emissions in CO₂e (carbon dioxide equivalent) from combustion. Assumed emissions from the 470 GWh of Net Imports (2010) are included in this estimate. In total, the annual emissions of CO₂e are estimated to be 51 million tonnes; with 45 million tonnes (88%) from TPP Kosovo A & B and 6 million tonnes (12%) from Net Imports.

Pollutant	GWP	Total Emissions (tons)	CO ₂ Equivalent (tons)
Carbon dioxide	1	6,773,657	6,773,657
Carbon monoxide	3	1,202	3,605
Unburned hydrocarbons	11	1,922,446	21,146,911
Particulate matter	680	25,092	17,062,799
Sulfur dioxide	0.075	19,622	1,472
Nitrogen oxides	310	20,333	6,303,202
TOTAL			51,291,645

Table 18: Summary of Modeled Emissions from TPP Kosovo A and B and Net Imports (2010)

3.2 Baseline Scenario - Demand and Generation Forecast (2011-2020)

In this section, a HOMER model was created to simulate the electric power system of Kosovo for the years 2011-2020. The annual consumption of electricity from 2011-2020 was modeled to match KOSTT estimates presented in *Table 7*. Key assumptions and results are presented below.

3.2.1 Key Assumptions

- TPP Kosovo A: In this simulation, it was assumed that TPP Kosovo A will remain in service through 2017. The efficiency and capacities of A3 – A5 were modeled as presented in Section 3.1.1.
- TPP Kosovo B: In this simulation, it was assumed that TPP Kosovo B will remain in service for all years 2011 – 2020. The efficiency and capacities of B1 and B2 were modeled as presented in Section 3.1.1. It was assumed that the net capacities of the power plants remain as presented in *Table 1*.
- TPP Kosovo G: It was assumed that TPP New Kosovo G1, G2, G3 will come online in 2016, 2017, 2018 respectively with installed capacities as shown in *Table 8*. It was assumed for this simulation that the efficiency curves for the new TPP G1 – G3 will be similar to those modeled for TPP B in *Figure 14*. It was also assumed that the emissions factors for TPP G1-G3 will be similar to those presented for TPP B1-B2 in *Table 14*.
- Solar Photovoltaics: The hourly solar resource in Kosovo was modeled in HOMER based on NASA telemetry data for insolation and cloudiness indices. The estimated monthly solar resource map is shown in *Figure 17* below.

Power generation from this solar resource was modeled as a solar photovoltaic (PV) plant with 13% efficiency at STC. It was assumed that the AC derating factor (which includes DC-AC conversion efficiencies, and losses due to age, soiling, etc.) is ~87%. The solar

power plant was modeled as a fixed-tilt system, tilted to 42° above horizontal (an optimal angle given by the site’s latitude).

The installed capacity of solar (PV) in this Base Scenario reaches a total of 800kW by 2020, based on estimates by MEM presented in Section 1.2.2. of this report. It was assumed that this 800 kW capacity is brought online linearly over the period 2011-2020.

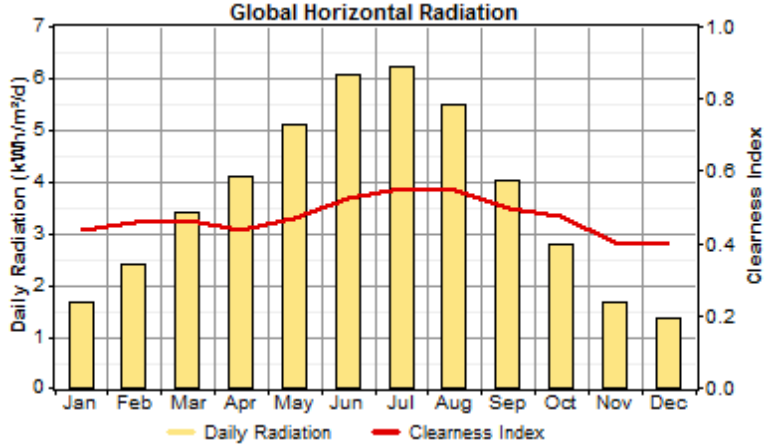


Figure 17: Modeled Solar Resource for Kosovo

- Small hydro power plants (HPP): The current installed capacity of small HPP in 2010 is ~ 42 MW. For this simulation, it was assumed that an additional capacity of 140.3 MW is installed by 2020 based on estimates by MEM presented in Section 1.2.2. The monthly variation in hydro resource was based on production estimates for 20 potential small HPP given in [7]. The simulated monthly average power generation (in MW) of the aggregate 182.3 MW capacity of small HPP is shown in *Figure 18* below. It was assumed that the capacity of installed small HPP is scaled from 42 MW to 182.3 MW linearly between 2010 and 2020.

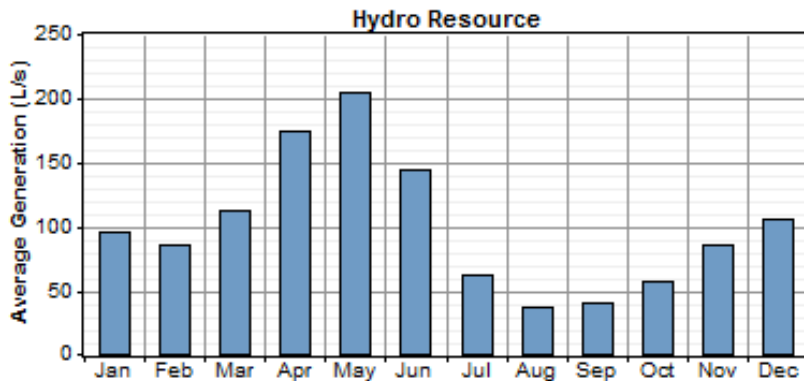


Figure 18: Modeled Average Power Generation by Month for 182.3MW of Small HPP

- HPP Zhur: It was assumed for this simulation that HPP Zhur is brought online in 2016. The Zhur HPP was modeled with an installed capacity of 305 MW and a capacity factor of 15% as shown in Section 2.2.2. of this report.
- Biomass: The MEM base scenario estimates the development of biomass and urban

waste fuelled power plants to reach an installed capacity of 16.5 MW by 2020 [11]. The biomass resource was modeled in this scenario as a biogas generator with a capacity factor of ~ 58%. The emissions factors of the biogas generator were based on reference data provided by HOMER. These emissions factors are presented in *Table 19* below. In this simulation, it was assumed that this 16.5 MW capacity is brought online linearly over the period 2011-2020.

Emissions Factors	
Carbon Monoxide (g/kg of fuel)	6.5
Unburned Hydrocarbons (g/kg of fuel)	0.72
Particulate Matter (g/kg of fuel)	0.49
Proportion of fuel sulfur converted to PM (%)	2.2
Nitrogen Oxides (g/kg of fuel)	58

Table 19: Estimated Emissions Factors for Biogas Generator

- Wind: The MEM base scenario presented in Section 1.2.2. of this report shows an installed wind energy capacity of 141 MW by 2020. In this simulation, the wind resource was modeled as shown in *Figure 9*. The wind turbines were modeled as RE Power MM92 machines with installed capacity of 2MW. The modeled power curve for the MM92 turbine is shown in *Figure 19*. In [11] it was shown that the assumed capacity factor of this 141 MW of wind is ~25%. In this simulation, the annual average wind speed at 37m was scaled down from 6.94 m/s to 5.35 m/s in order to match this 25% capacity factor estimate.

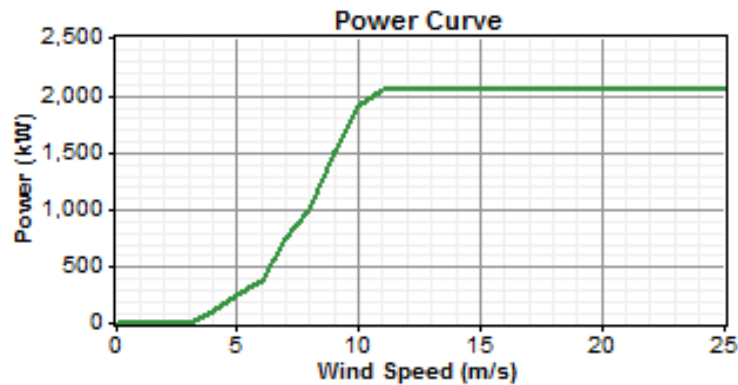


Figure 19: Modeled Power Curve for RE Power MM 92 Turbine

3.2.2 Simulation Results

The simulated net generation forecast for the ‘base scenario’ from 2010 – 2020 is summarized in *Table 20*. In this simulation, the generators are dispatched such that renewable generation gets priority, and thus 100% of the energy generated from renewables goes toward meeting the Total Consumption. The lignite TPP are dispatched based on their efficiency. Thus, smaller capacity TPP are favored by HOMER for meeting lower loads, due to their higher relative efficiency. The TPP are only dispatched to meet the gap between the Total Consumption and the energy generated by renewables. Thus, this simulation produces no net exports and the Total

Consumption is equal to the Total Net Generation.

In this scenario, by 2020 the total energy generated from renewables is 1676 GWh – which is equivalent to 22% of the Total Net Generation. Generation from hydro power plants accounts for 17% of the Total Net Generation, while Bio+Wind+Solar contribute 5%. With this high percentage of power being generated by renewables, our simulation shows that very little power is required from TPP G3 (only 376 GWh in 2020 – which represents a capacity factor of only 11%).

Net Electricity Generation (GWh):											
Base Scenario	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TPP Kosovo A3-A5	1740	1740	1739	1739	1739	1740	1739	1739	0	0	0
TPP Kosovo B1-B2	3271	3461	3527	3568	3595	3627	3298	3275	3975	3998	4002
TPP Kosovo G1-G2	0	0	0	0	0	0	388	693	1448	1464	1483
TPP Kosovo G3	0	0	0	0	0	0	0	0	350	370	376
Total TPP	5010	5201	5267	5307	5335	5366	5425	5708	5773	5832	5861
Small HPP	157	229	302	374	447	519	592	664	737	809	881
HPP Zhur	0	0	0	0	0	0	401	401	401	401	401
Total HPP	157	229	302	374	447	519	992	1065	1137	1210	1282
Biomass	0	8	17	25	34	42	50	59	67	75	84
Wind	0	2	32	68	99	134	169	205	240	271	311
Solar	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total Bio + Wind + Solar	0	10	49	93	132	176	220	263	307	346	395
Total Renewables	157	239	351	467	579	695	1212	1328	1444	1556	1676
Total Net Imports	470	476	527	549	586	613	217	0	0	0	0
Total Net Generation	5637	5917	6144	6324	6500	6675	6854	7036	7218	7388	7537

Assumptions:
 141MW Wind by 2020
 140MW new hydro by 2020 (182 including existing capacity)
 HPP Zhur online in 2016 with 15% cf
 800kW PV by 2020
 16.5MW Biomass by 2020

Table 20: Simulated Net Electricity Generation for 'Base Scenario' 2010-2020

3.3 Low Carbon & EE – Demand and Generation Forecast (2011-2020)

This section was created to present a scenario in which the TPP New Kosovo G1-G3 are no longer needed to meet the forecasted electrical consumption. This is shown as an increase in capacity for biogas, wind and solar from the base scenario presented in Section 3.2.

3.3.1 Key Assumptions

- TPP Kosovo A: In this simulation, it was assumed that TPP Kosovo A will remain in service through 2017. The efficiency and capacities of A3 – A5 were modeled as presented in Section 3.1.1.
- TPP Kosovo B: In this simulation, it was assumed that TPP Kosovo B will remain in service for all years 2011 – 2020. The efficiency and capacities of B1 and B2 were

modeled as presented in Section 3.1.1. In this simulation, it was assumed that the net capacities of the power plants would be raised to 300 MW by 2018.

- Solar Photovoltaics: The total installed capacity of 800 kW in the Base Scenario is very low. In this &, we assume a factor of 10 increase – thus, the installed capacity of solar (PV) in this Low-Carbon Scenario reaches a total of 8 MW by 2020.
- Small HPP: The capacity of small hydro power plants (HPP) will remain as specified in the Base Scenario of Section 3.2
- HPP Zhur: It was assumed for this simulation that HPP Zhur is brought online in 2016. The Zhur HPP was modeled with an installed capacity of 305 MW and a capacity factor of 15% as shown in Section 2.2.2. of this report.
- Biomass: Section 2.5 of this report shows a theoretic potential for biomass of over 6000 GWh/yr. In this scenario we propose a factor of 10 increase in the 16.5 MW potential assumed in the Base Scenario. Thus, this scenario assumes an installed biomass resource of 165 MW by 2020. Again, we are assuming a biogas plant with a capacity factor of 58% (total annual energy production ~830 GWh/yr which is 14% of the estimated resource potential).
- Wind: The MEM base scenario presented in Section 1.2.2. of this report shows an installed wind energy capacity of 141 MW by 2020 . This estimation was done based on three wind projects (aggregate capacity 157 MW) which had been submitted for government approval. In this scenario, we assume that the installed capacity by 2020 could easily be as high as 280 MW – by focusing development in the windy regions of *Figure 10* to areas near existing transmission. In addition, due to geographic dispersion of the wind farms, we're estimating an increase in capacity factor to 30%.

3.3.2 Simulation Results

The simulated net generation forecast for the 'Low-Carbon Scenario' from 2010 – 2020 is summarized in *Table 21*. As with the previous 'Base Scenario' simulation, here the Total Net Generation for each year matches the Total Consumption estimates presented by KOSTT in *Table 6*.

Net Electricity Generation (GWh):											
Low-Carbon & EE Scenario	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TPP Kosovo A3-A5	1740	1740	1740	1740	1740	1740	1740	1740	0	0	0
TPP Kosovo B1-B2	3271	3502	3510	3469	3416	3377	3351	3310	4612	4556	4485
Total TPP	5010	5243	5250	5209	5156	5117	5090	5050	4612	4556	4485
Small HPP	157	229	302	374	447	519	592	664	737	809	881
HPP Zhur	0	0	0	0	0	0	401	401	401	401	401
Total HPP	157	229	302	374	447	519	992	1065	1137	1210	1282
Biomass	0	84	168	252	335	419	503	587	671	755	838
Wind	0	2	83	165	251	333	419	501	587	674	761
Solar	0.00	0.01	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.13
Total Bio + Wind + Solar	0	86	251	416	587	752	923	1088	1258	1429	1599
Total Renewables	157	315	553	790	1033	1271	1915	2153	2395	2638	2881
Total Net Imports	470	359	341	324	310	286	-152	-167	204	188	165
Total Net Generation	5637	5916	6144	6324	6500	6675	6854	7036	7211	7382	7531

Assumptions:

- 281MW Wind by 2020
- 140MW new hydro by 2020 (182 including existing capacity)
- HPP Zhur online in 2016 with 15% cf
- 8MW PV by 2020
- 165 MW Biomass by 2020

Table 21: Simulated Net Electricity Generation for 'Low-Carbon Scenario' 2010-2020

In this scenario, by 2020 the total energy generated from renewables is 2881 GWh – which is equivalent to 38% of the Total Net Generation. Generation from hydro power plants accounts for 17% of the Total Net Generation, while Bio+Wind+Solar now contribute 11%.

Figure 20 shows the simulated net generation of electricity by month within Kosovo in 2020. In this plot 'Hydro' represents the production from 180.3 MW of small HPP capacity. Since these sources are non-dispatchable, the gap between the total generation (shown for 2020 in *Figure 20*) and the Total Consumption must be met through a combination of HPP Zhur and Net Imports. *Figure 21* shows a probability density function of the variable load that must be met through a combination of HPP Zhur and Net Imports in 2020. This load hits a peak of 700 MW – which could realistically be supplied by the 305 MW from zhur and 295 MW from Net Imports.

The capacities of renewable generation in this scenario were chosen to show that the forecasted Total Consumption could be met with a combination of local renewables and imports with neighboring countries. In fact, inspection of *Table 6* shows that required net imports of electricity drop annually from 2010 - 2015. In 2016 – 2017 the generation within Kosovo is high enough that it becomes a net exporter of electricity to neighboring countries (with net exports of 152 GWh and 167 GWh, respectively). In 2018, with TPP A being de-commissioned, Kosovo once again becomes a net importer of electricity. However, at maximum, the net imports for the period 2018 – 2020 are half the current (2010) values.

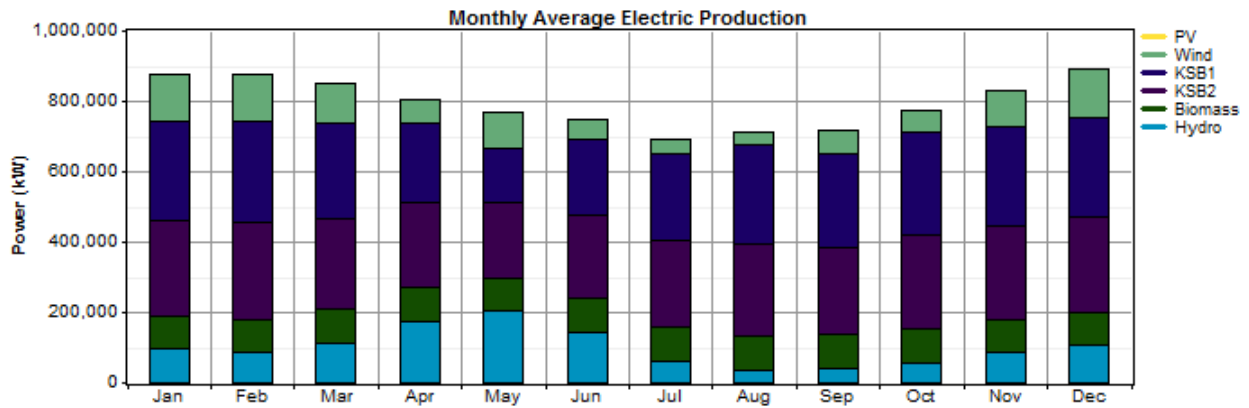


Figure 20: Monthly Electricity Generated within Kosovo for ‘Low-Carbon Scenario’ 2020 (does not include HPP Zhur)

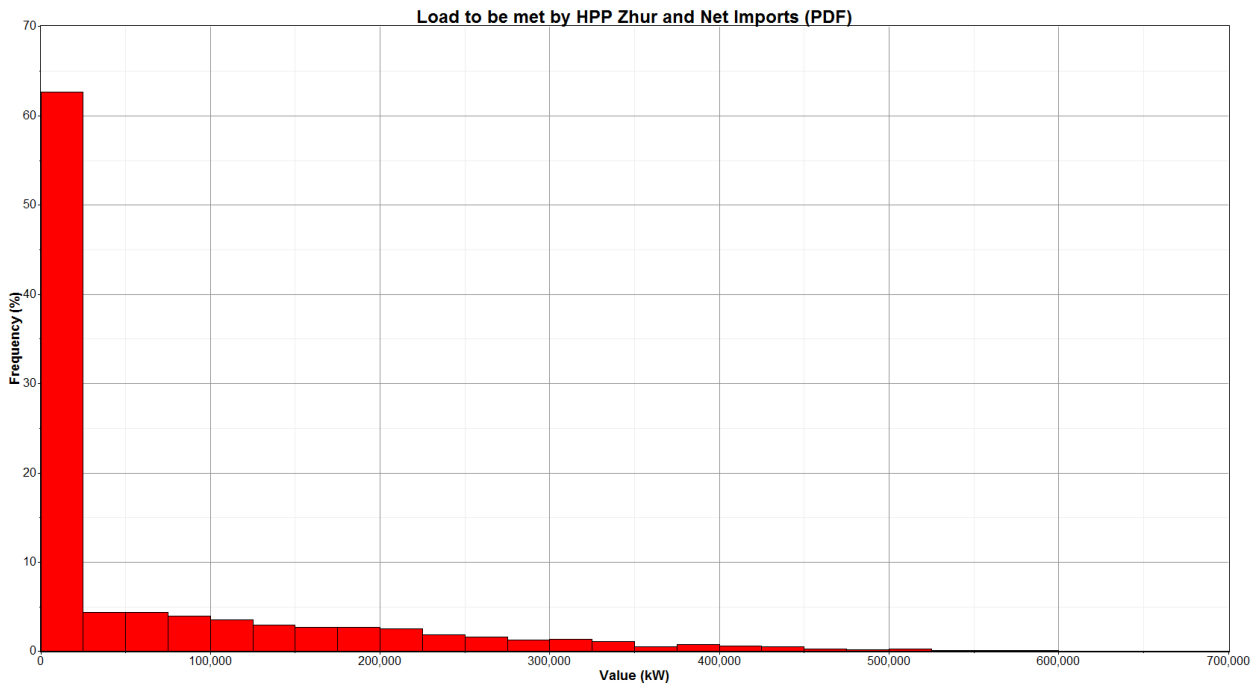


Figure 21: Probability Density of Load to be met by HPP Zhur and Net Imports

3.4 Job Creation

Job creation is an especially pressing issue in Kosovo as the country is facing double-digit unemployment rates with a fast growing youth rate entering the workforce. With a 46 percent unemployment rate and a low employment rate (29 percent), Kosovo has the weakest employment track record in Europe. Unemployment among the population 15 - 25 years old reaches 76 percent, a figure that is more alarming considering that half of Kosovo’s total population is under 25.[25]

The clean energy industry has been targeted as a key area for investment for both environmental and economic reasons. Building up a domestically produced clean energy supply can provide greater energy independence and security, and has notable environmental benefits due to reduced CO₂ and other emissions. The clean energy industry can act as a driver for significant, positive economic growth through continual innovation and unlike a capitalized coal generation, clean energy create domestic jobs that are often dispersed throughout the country and additionally, many of these jobs are guaranteed to stay domestic as they involve local construction and installation. Moreover by investing in energy efficiency measures, money otherwise spent on energy costs can be redirected to stimulate the economy through job creation.

In a recent peer-reviewed study Wei, Patadia and Kammen ([23]: hereafter WPK) reviewed 15 studies on the job creation potential of renewable energy, energy efficiency, and low carbon sources such as carbon capture and sequestration (CCS) and nuclear power. The paper first clarifies job definitions and then introduces a common metric and normalization methodology to allow for meaningful comparison of studies. A meta-study of many papers is done to take ranges and averages of normalized job multipliers. Unlike most other renewable energy studies, an attempt is made to take into account job losses in the coal and natural gas industry as a first step to capturing wider economy effects.

In order to compare the various studies on an equal footing, WPK adopted two simple normalizations to calculate lifetime average employment per unit of energy. First, “one-time” employment factors such as construction and installation (“job-years per peak MW”) are averaged over plant lifetime to obtain an average employment number (“jobs per peak MW”) that can be directly added to ongoing employment factors such as operations and maintenance. Next, to allow for comparison between technologies with different capacity factors, WPK calculate employment per unit of energy (“job-years per GWh”) or per unit of average-MW of power output (“job-years per average MW”).

Table 22 shows the direct and indirect job multipliers for different electricity resources. [32]

Work-hrs per year	2000	Capacity Factor	Equipment lifetime (years)	Employment Components			Average Employment Over Life of Facility							
				CIM (person-years/MWp)	O&M (jobs/MWp)	Fuel extraction & processing (person-yrs/GWh)	Total jobs/MWp		Total jobs/MW _a		Total person-yrs/GWh			
							CIM	O&M and fuel processing	CIM	O&M and fuel processing	CIM	O&M and fuel processing	Total	Avg
Biomass 1	EPRI 2001	85%	40	4.29	1.53	0.00	0.11	1.53	0.13	1.80	0.01	0.21	0.22	0.21
Biomass 2	REPP2001	85%	40	8.50	0.24	0.13	0.21	1.21	0.25	1.42	0.03	0.16	0.19	
Small Hydro	EPRI 2001	55%	40	5.71	1.14	0.00	0.14	1.14	0.26	2.07	0.03	0.24	0.27	0.27
Large Hydro														0.29
Solar PV 1	EPIA 2006	20%	25	37.00	1.00	0.00	1.48	1.00	7.40	5.00	0.84	0.57	1.42	0.87
Solar PV 2	REPP 2006	20%	25	32.34	0.37	0.00	1.29	0.37	6.47	1.85	0.74	0.21	0.95	
Solar PV 3	EPRI 2001	20%	25	7.14	0.12	0.00	0.29	0.12	1.43	0.60	0.16	0.07	0.23	
Wind 1	EWEA 2008	35%	25	10.10	0.40	0.00	0.40	0.40	1.15	1.14	0.13	0.13	0.26	0.17
Wind 2	REPP 2006	35%	25	3.80	0.14	0.00	0.15	0.14	0.43	0.41	0.05	0.05	0.10	
Wind 3	McKinsey 2006	35%	25	10.96	0.18	0.00	0.44	0.18	1.25	0.50	0.14	0.06	0.20	
Wind 4	CALPIRG 2002	35%	25	7.40	0.20	0.00	0.30	0.20	0.85	0.57	0.10	0.07	0.16	
Wind 5	EPRI 2001	35%	25	2.57	0.29	0.00	0.10	0.29	0.29	0.83	0.03	0.09	0.13	
Coal	REPP, 2001	80%	40	8.50	0.18	0.06	0.21	0.59	0.27	0.74	0.03	0.08	0.11	0.11
Energy Efficiency 1	ACEEE 2008	100%	20										0.17	0.38
Energy Efficiency 2	J. Goldemberg 2009	100%	20										0.59	

Table 22: Job Multipliers for different energy resources (US)

The WPK modeling approach yields the following key conclusions:

- The renewable energy and low carbon sectors generate more jobs per unit of energy delivered than the fossil fuel-based sector;
- Among the new renewable energy technologies (solar, wind, biomass, and geothermal), solar photovoltaics (PV) create the most jobs per unit of electricity output;
- Energy efficiency and renewable energy taken together can contribute to much lower CO₂ emissions and significant job creation.

Thus we should look at solar, hydro and wind energy not only as viable energy sources from an environmental perspective, but as strong avenues for job creation within the country. In the absence of local data for job creation in Kosovo we used the above numbers, which are derived from both US and EU resources. To compare, we have calculated the job numbers for 3 different cases.

- Business As Usual (BAU): In this scenario the load till 2020 is supplied through the existing electricity resources (TPP A & B, Existing HPP), the new Kosovo C and Imports.
- Base Scenario: This is the same scenario identified in section 3.2
- Low-Carbon Scenario: This is the same scenario identified in section 3.3

Table 23 shows the results in total ‘job.yr’ created till 2020 for different energy scenarios.

	BAU	Base Scenario	Low-Carbon Scenario
Energy Technology	Job.yr till 2020	Job.yr till 2020	Job.yr till 2020
Biomass	0	33718	345621
Small Hydro	167	541181	541181
Large Hydro (Zhur)	0	206836	206836
Solar PV	0	22	223
Wind	0	94792	233937
Coal	2,812,529	2,449,411	2,233,061
EE			
Total (Job.yr till 2020)	2,812,696	3,325,961	3,560,859
Jobs vs BAU (%)	-	118	127

Table 23: Total Job.Yrs till 2020 for ‘BAU’, ‘Base Case’ and ‘Low-Carbon’ Scenarios

This means by changing from ‘BAU’ to ‘Base Scenario’ we create an additional ~ 51000 full time jobs till 2020. And by choosing the ‘Low-Carbon Scenario’ over ‘BAU’ the number increases to ~ 75000 more jobs (than in ‘BAU’).

The results show a respective 18% and 27% increase in the number of total jobs created from the ‘Base’ and ‘Low-Carbon’ Scenarios compared to the BAU case.

3.5 Levelized Cost of Electricity and Externalities

Cost of electricity is generally calculated on a “per Megawatt Hour” (MWh) or “Levelized” basis in order to enable comparison between sources of generation. There are two types of cost associated with the levelized cost of electricity- Explicit and External-.

The explicit cost of electricity generation includes capital costs, fixed and variable operation and maintenance costs (O&M) and the cost of fuel. This explicit cost is paid by the power plant owner to build the facility and generate electricity.

The external cost of electricity generation includes (but is not limited to) negative health impact, air & water pollution, resettlement issues and climate change impacts. This cost if not paid by the facility owner but is borne by the general society.

Figure 22 shows the true cost of electricity generation from different sources with and without their external costs. This figure shows a conventional pulverized coal plant in the absence of emission control factors. As a result, with externalities included, the cost of electricity from coal becomes less attractive [28]. Moreover, although the addition of an emission controls system reduces external costs, it drastically increases explicit costs. As a result, pulverized coal is not the most cost effective source of electricity. *Figure 23* shows the same comparison with a power plant equipped with emission control measures.

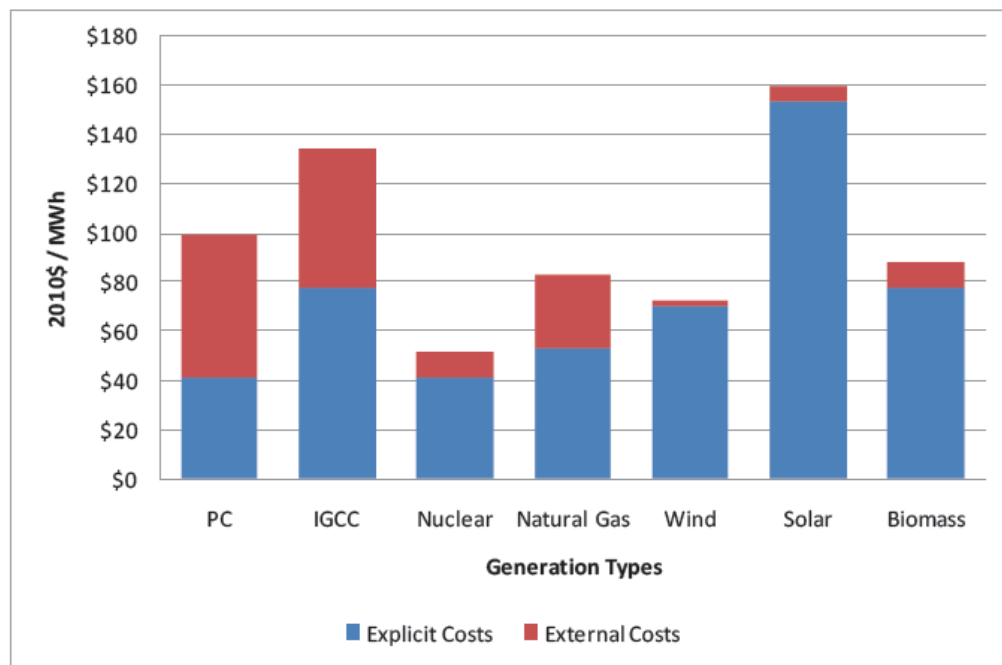


Figure 22: Social Cost of electricity generation (2010\$/MWh) [28]

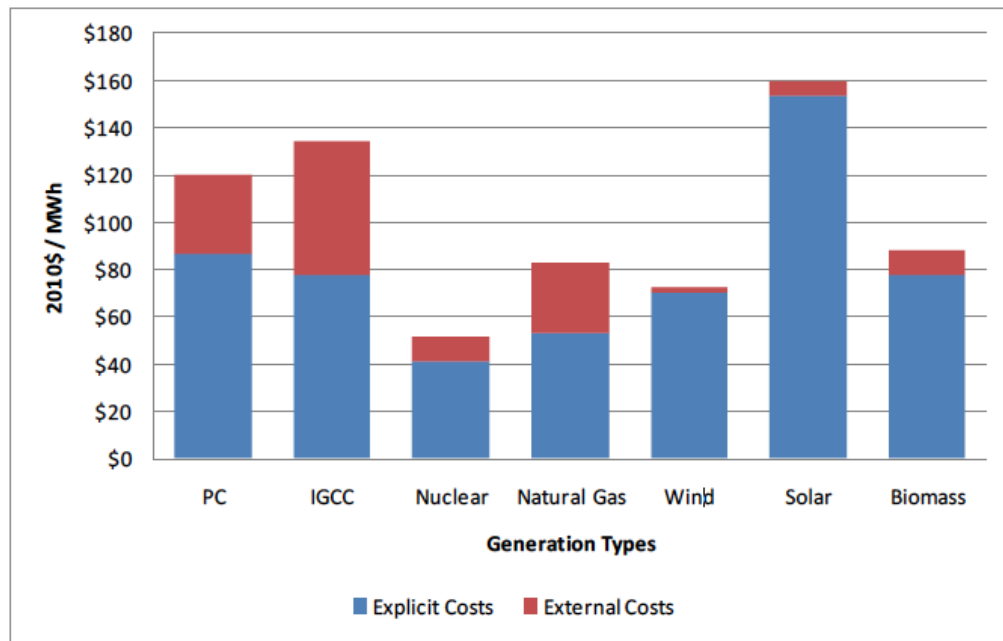


Figure 23: Social Cost of electricity generation- PC includes all available emission control methods (2010\$/MWh) [28]

As mentioned earlier, coal may seem to be the cheapest fossil fuel on the market, but its market price is only half the story. The entire process from mining, through combustion to waste disposal, has a dire impact on the environment, human health and the social fabric of communities living near mines, plants and waste sites. It severely disrupts ecosystems and contaminates water supplies. It emits carbon dioxide and other greenhouse gases like nitrogen oxide and methane, as well as toxic chemicals like mercury and arsenic. Leaking waste ruins fish stocks and agriculture. It directly contributes to health problems like black lung disease. Because none of these are reflected in the price of coal, they're referred to "external costs".

A recent study on the externalities of coal in US finds that the best estimate for the total economically quantifiable costs, based on a conservative weighting of many of the study findings, adds about 17.8¢ /kWh to electricity generated from coal. The low estimate is 9¢ /kWh, while the true monetizable costs closer to the upper could be as high as 26.89¢ /kWh. And yet these figures do not represent the full societal and environmental burden of coal. In quantifying the damages, the study has omitted the impacts of toxic chemicals and heavy metals on ecological systems and diverse plants and animals; some ill-health endpoints (morbidity) aside from mortality related to air pollutants released through coal combustion that are still not captured; the direct risks and hazards posed by the combustion waste; the full contributions of nitrogen deposition to eutrophication of fresh water; the prolonged impacts of acid rain and acid mine drainage; many of the long-term impacts on the physical and mental health of those living in coal-field regions nearby sites; and the full assessment of impacts due to an increasingly unstable climate.

The true ecological and health costs of coal are thus far greater than the numbers suggest. Accounting for the many external costs over the life cycle for coal-derived electricity conservatively doubles to triples the price of coal per kWh of electricity generated. [31]. *Table 24* shows some of the coal externalities accounted for in US. Since there is some uncertainty in the

monetization of the damages, low, base, and high estimates are presented. Low and high values indicate both uncertainty in parameters and different assumptions about the parameters that are used to calculate the estimates. Best estimates are not weighted averages, and are derived differently for each category.

Externality	2008 USD ¢/kWh		
	Min	Base	Max
Land Disturbance	0.00	0.01	0.17
Methane Emission from mines	0.03	0.08	0.34
Public Health (Local Communities - Appalachia)	4.36	4.36	4.36
Air Pollution from Combustion	3.23	9.31	9.31
Lost Productivity from Mercury Emissions	0.01	0.10	0.48
Mental Retardation from Mercury Emissions	0.00	0.02	0.19
Cardiovascular Disease from Mercury Emissions	0.01	0.21	1.05
Climate Damage from CO ₂ & N ₂ O	1.02	3.06	10.20
Climate Damage from black carbon emission	0.00	0.00	0.01
Total	8.66	17.15	26.11

Table 24: External Cost of Coal in US (2008 US Cents/KWh)

The data in Table 24 are shown graphically in Figure 24.

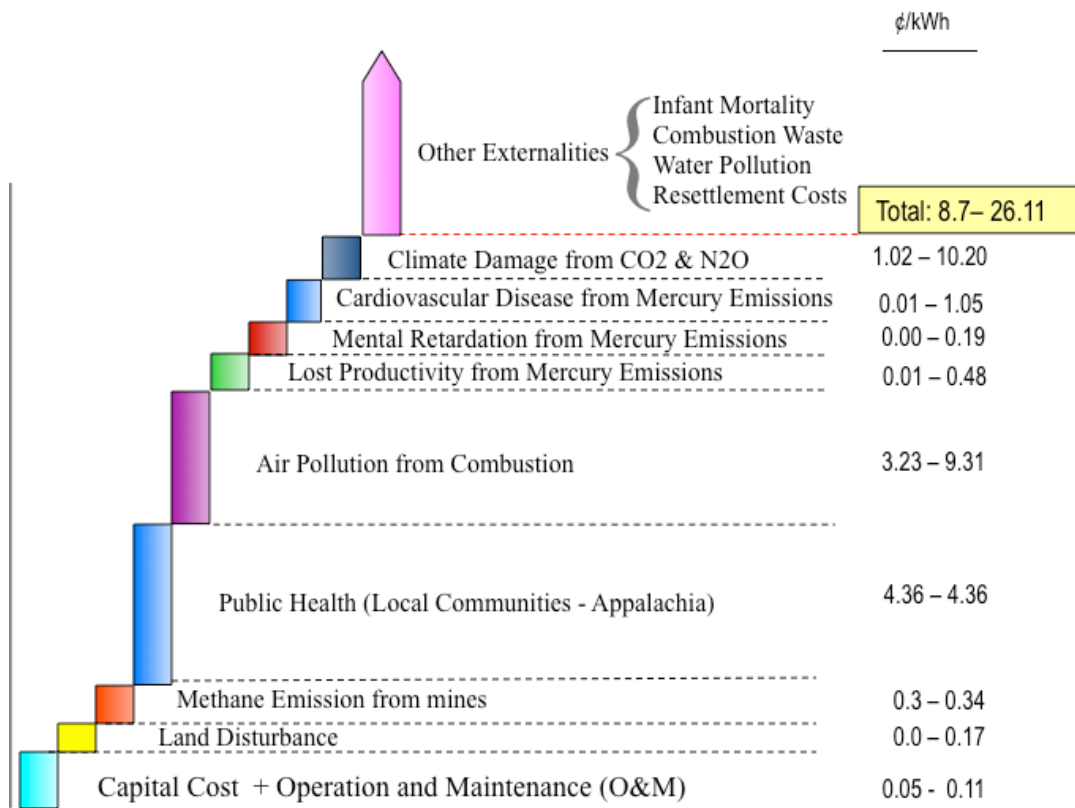


Figure 24: External Cost of Coal in US (2008 US Cents/KWh)

An assessment of the cost externalities associated with a coal-dominated economy, was recently completed for the Republic of South Africa [24]. Although the analysis for South Africa covers only a few of the externalities associated with the power plant, it clearly shows that including

just a few of the external costs in the true cost of coal-fired electricity generation would add between 237% and 459% to the 2010 electricity tariff. [24] The energy generation mix in Kosovo is similar to that of South Africa in terms of the local coal mining to combustion value and impacts chain. This means a roughly 200% to 400% increase in the electricity cost in Kosovo should not be an overestimation.

CASE	DESCRIPTION	PEAK MW	Total GWH	\$/W _{peak} ¹	\$/MWh ²	\$ million (Installed Capacity)	\$ million (LCOE)	\$ million (LCOE w Externalities - 200%)	\$ million (LCOE w Externalities - 400%)
Base Scenario	TPP Kosovo A3-A5		13916						
	TPP Kosovo B1-B2		39598						
	TPP Kosovo G1-G2	600	5476	2.6	94.8	1560.00	519.12	1038.25	2076.50
	TPP Kosovo G3	400	1096	2.6	94.8	1040.00	103.90	207.80	415.60
	Wind	141	1530	1.95	97	274.95	148.41	148.41	148.41
	Small Hydro	182	5710	1.5	86.4	273.00	493.34	493.34	493.34
	HPP Zhur (cf=15%)	305	2003	1.44	155.5	439.20	311.47	311.47	311.47
	Residential PV	0.8	0.07	4.65	210.7	3.72	0.01	0.01	0.01
	Biomass	16.5	461	2.4	112.5	39.60	51.86	51.86	51.86
	Imports	295	3438		142		488.20	976.39	1952.78
Total:						3630	2116	3228	5450
Low-Carbon & EE Scenario	TPP Kosovo A3-A5		13919						
	TPP Kosovo B1-B2		40859						
	Wind	281	3776	1.95	97	547.95	366.27	366.27	366.27
	Small Hydro	182	5710	1.5	86.4	273	493.34	493.34	493.34
	HPP Zhur (cf=15%)	305	2003	1.44	155.4	439.2	311.27	311.27	311.27
	Residential PV	8	0.71	4.65	210.7	37.2	0.15	0.15	0.15
	Biomass	165	4612	2.4	112.5	396	518.85	518.85	518.85
	Imports	295	2330		142		330.86	661.72	1323.44
Total:						1693	2021	2352	3013

1 Values from Black & Veatch

2 Values from US Department of Energy- DOE/EIA-0383(2010)

The externalities studied in the South African case include health impacts due to air pollution, the CO₂ emissions and its contribution to climate change, the cost of coal mining and transportation and finally the scarcity value (opportunity cost) of water. A lot of other important factors such as impact of heavy metals in causing cancer, health costs related to ash dumps, water quality degradation, among other factors, are left out of the study.

Health Risks:

Coal mining and combustion releases many more chemicals than those responsible for climate change. Coal also contains mercury, lead, cadmium, arsenic, manganese, beryllium, chromium, and other toxic, and carcinogenic substances. Coal crushing, processing, and washing releases tons of particulate matter and chemicals on an annual basis and contaminates water, harming community public health and ecological systems. [31]

Kosovo has the worst health outcomes in the Balkans. As shown in *Table 25*, on every indicator—life expectancy, maternal death rates, infant and child mortality, immunization rates and tuberculosis incidence—Kosovo ranks far below neighboring countries, often by a factor of two. Infant and child mortality rates, which are twice as high as in neighboring countries, result from readily preventable problems—perinatal conditions, respiratory diseases and diarrhea. [18] According to 2007 UNDP data, Kosovo had the highest child and infant mortality rates and the lowest life expectancy (69 years) in South East Europe. Environmental problems such as air pollution, waste management and heavy metal pollution affect the population’s health: the

Mitrovica municipality reports the highest blood lead levels in the world. [19]

Indicators	Kosovo	Serbia	Albania	Bosnia	Mace- donia	EU
Life expectancy at birth, total (years)	69	74	76	n/a	n/a	79
Maternal deaths (per 100000 live births)	28.4*	12.68	16.75	n/a	13.34	6.01
Infant mortality (per 1,000 live births)	20.6*	7.11	7.8	n/a	n/a	4.56
Under 5 mortality (per 1,000)	69 (2002)	8.14	12.4	n/a	n/a	5.47
Immunization, measles (percent of children)	<80	92	98	83.5	98	92.8
Tuberculosis incidence per 100000	52 (2005)	26.6	13.9	60.5	25.7	15.5
UNDP Human Development Index (HDI)	0.734	0.821	0.807	0.802	0.808	n/a

Source: WHO health for all data 2006; UNDP Second Millennium Development Goals Report for Kosovo 2008; MOH: Perinatal situation in Kosovo 2000-2008.
*Note: Infant deaths (proxied by perinatal deaths) and maternal deaths in Kosovo include only deaths in health facilities.

Table 25: Health Indicators for Kosovo and Neighboring Countries, 2007

Resettlement Costs:

The new mine will acquire approximately 13% of the territory of the Obiliq Municipality. The area planned for mining development, is largely composed of fertile land (i.e., agricultural), while the remaining parts are settlements, roads or forests.[26] According to the SESA, 2008 [27], local villages will need to be resettled with the total population of the affected area estimated at around 1,500 families. The mine development-induced direct land acquisition is largely reflected in the four locations already slated for resettlement, including Hade (784 people remaining), Dardhishte (~ 987 people), Lajthishte (~ 921 people), and Sibovc (~ 1,114 people). In addition, 330 families in the town of Plemetin will need to be relocated because their houses are within the 1,000 m buffer zone from the new planned power plant.[27].

If resettlement is determined to be possible in the Kosovo Lignite Power Project, the project will require significant permanent relocation and rehabilitation of land, which are associated with high resettlement costs. Given the basic data needed for estimating resettlement costs, i.e., updated census, asset inventory, detailed socioeconomic survey, and project technical designs are all lacking, it is necessary to rely on average resettlement expenses for other World Bank projects.³ On average, World Bank-supported hydropower projects' completion reports indicate resettlement costs of an average of 11 percent of overall project costs. [29] Accordingly, resettlement costs for the Kosovo Lignite Power project are estimated to approximately equal \$33 million. ⁴ [30]

³ The World Bank's Involuntary Resettlement Sourcebook (2004) also recommends an estimate methodology based on three to five times per capita gross national income (GNI) for each person subject to relocation. Given the specific number of persons to be relocated was unknown and that the per capita GNI for Kosovo is so low (i.e., \$3,300 according to IFC's Doing Business 2012), this method was determined not to provide an accurate estimate.

⁴ Based on an analysis carried out by Vattenfall of the new mine to serve the new power station with 600MW capacity. It shows an investment of \$300 million in constant prices over the period 2007-2038. As cited in: Kosovo Lignite Power Initiative Proposed Lignite Power Development Project (LPDP): Economic Analysis (downloaded from the World Bank's project website, file dated May 11, 2011).

4. Conclusions & Recommendations

This assessment is an analytic treatment of the energy options that exist today and that can be created through investigation of new energy efficiency, renewable energy, and the wise use of fossil fuel resources. Key components of such a forward-looking energy plan for Kosovo, and arguably for the Balkans more widely, are: job creation and the support of indigenous industry; reduced exposure to energy supply and price risks through regional coordination and integration; and an energy mix that reduces human and environmental health risks and facilitates economic integration with the European Union.

In conclusion we find that:

- The business as usual path, dominated by an expanded use of low-quality coal, is not the least-cost energy option for Kosovo given the social cost of thermal generation. The coal dominant energy path also burdens future generations with an energy mix that is neither environmentally sustainable nor is it a path that maximizes job creation.
- A low-carbon path exists for Kosovo that integrates aggressive energy efficiency deployment, use of both large and small-scale hydropower, solar, biomass and extensive use of wind energy while reducing human and ecological damage. This path whilst delivering 38% of the energy demand through renewable resources can also provide almost 30% more jobs than a business as usual path and it does so at an estimated cost savings of 50% relative to a base-case scenario that includes a new coal power plant.
- To make the low-carbon path viable, two key commitments are vital: 1) to implement aggressive energy efficiency programs (and reducing technical losses) and enabling policies to do so; and 2) to explore and implement opportunities to make the hydropower capacity a resource year-round, and to develop wind or other renewable energy sources that can address peak energy demands, potentially utilizing wind and hydropower in concert, and/or to bring significant geothermal power into the energy mix.

Appendix A:

World Bank Kosovo Lignite Power Project: Resettlement

Prepared by: Heike Mainhardt-Gibbs, December 2011

Resettlement has been identified as a major impact that the World Bank Kosovo Lignite Power Project will have on the local population. Resettlement will be necessary mainly due to the coal mine field development aspect of the project, but also from the new power plant and related facilities and infrastructure. There are 20 towns and villages in the Lignite Power Project area. According to the SESA (2008)⁵, most of the communities are located close enough to the existing mines and power plant sites to be substantially affected by the environmental pollution that they generate. The population of Obiliq municipality is around 32,300.⁶ The average population density is 304 persons per km² (higher than the Kosovo average of 193 per km²).⁷

According to the Resettlement Policy Framework⁸ (RPF) for the project, the project-affected areas can be divided into three primary categories: 1) areas directly required for the mining and power complex, including for any ancillary facilities; 2) areas required for the safety zones of the mine and any new roads, sub-stations and transmission lines; and 3) areas that are not required for the mining and power complex or for the formal safety zones but which suffer or will suffer significant social and environmental impacts: such as dust, noise, air pollution and contamination of ground and surface water, etc.

As such, the new mine operation will acquire approximately 13% of the territory of the Obiliq Municipality.⁹ According to the SESA, 2008, local villages will need to be resettled with the total population of the affected area estimated at around 1,500 families. The mine development-induced direct land acquisition is largely reflected in the four locations already slated for resettlement, including Hade (784 people remaining), Dardhishte (~ 987 people), Lajthishte (~ 921 people), and Sibovc (~ 1,114 people).¹⁰ In addition, 330 families in the town of Plemetin will need to be relocated because their houses are within the 1,000 m buffer zone from the new planned power plant.¹¹

⁵ SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

⁶ There are around 5,300 inhabitants in town and 27,000 in the rural areas. Ministry of Environment and Spatial Planning, 2006. "Spatial Analysis of Obiliq".

⁷ Ibid.

⁸ Ministry of Environment and Spatial Planning, 2009. Resettlement Policy Framework for Land Acquisition for the New Mining Field Zone. Republic of Kosovo, 2009.

⁹ SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

¹⁰ These population estimates were cited in the SESA, 2008. The SESA noted that up dated census data was necessary. In addition, it appears that these estimates may only represent village residents and not rural populations.

¹¹ SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

The majority of land is owned in close proximity of residents and renting of land is not a common practice in the project area.¹² All residents in the project area own land around their houses or ‘yards’ on which 80-97% grow crops and cereals for household consumption.¹³ Income levels are low and most inhabitants are reliant on subsistence farming for some, if not all, of their food supply. Additional income is generated through agricultural production, wood-cutting¹⁴ and small scale farming.¹⁵ The Project will acquire most of the fertile land in the surrounding area.¹⁶

Appropriate resettlement and compensation for any lost land is especially important due to the reliance on agricultural production for both subsistence farming and as an additional source of income. Resettlement involved in the Kosovo Lignite Power Project is complicated¹⁷ and must abide by international standards, which in addition to land and house replacement, require affected families to be compensated for the loss of their livelihoods and/or subsistence. The SESA (2008) concluded that “the Project would provide limited paid employment for some residents, however, economic advantages are limited for most.”

Lack of Agricultural Land and Rehabilitation: Resettlement involved in the Lignite Power Project is further complicated by the fact that there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods.¹⁸ The RPF¹⁹ asserts that this problem will be addressed through rehabilitated land:

There is an acute shortage of good agricultural land in the area around the proposed mining and power complex. The option of providing a plot of rehabilitated land is intended to encourage the Project Company to rehabilitate and make use of a large area of overburden dumps that is presently owned by KEK. To make this option more attractive, the Project Company will offer affected landowners a larger area of land than the plot that is affected and/or a package of additional benefits, which might include technical assistance and/or the use of shared equipment.

However, it has not been proven that the rehabilitated land will be suitable for food production. Once land has been fully rehabilitated, it will still take time and funding to monitor the soil and water quality to determine whether or not it is safe for food production.²⁰

Resettlement Costs: If resettlement is determined to be possible in the Kosovo Lignite Power Project, the project will require significant permanent relocation and rehabilitation of land, which are associated with high resettlement costs. Given the basic data needed for estimating resettlement costs, i.e., updated census, asset inventory, detailed socioeconomic survey, and project technical designs are all lacking, it is necessary to rely on average resettlement expenses for other World Bank projects.²¹ On average, World Bank-supported hydropower projects’ completion reports indicate resettlement costs of an average of 11

¹² SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

¹³ Ibid.

¹⁴ A quarter of all residents earn extra income cutting and selling wood for heating (SESA, 2008).

¹⁵ SESA, 2008. Strategic Environmental and Social Assessment. Government of Kosovo, Ministry of Energy and Mining. World Bank Lignite Power Technical Assistance Project (LPTAP), June 2008.

¹⁶ Ibid.

¹⁷ According to the SESA (2008), the legacy of the resettlement in 2003-2004 in the area, i.e. partial resettlement of Hade, has left both those remaining and those resettled extremely angry about the process. Residents are concerned that the Hade experience will be repeated. As of SESA (2008), 85 Hade-resettled families were still living in temporary accommodation in Obiliq town.

¹⁸ Ibid.

¹⁹ Ministry of Environment and Spatial Planning, 2009. Resettlement Policy Framework for Land Acquisition for the New Mining Field Zone.

²⁰ Some data may be obtained from the Clean Up and Land Reclamation Project (CLRP) that was initiated in 2007.

²¹ The World Bank’s Involuntary Resettlement Sourcebook (2004) also recommends an estimate methodology based on three to five times per capita gross national income (GNI) for each person subject to relocation. Given the specific number of persons to be relocated was unknown and that the per capita GNI for Kosovo is so low (i.e., \$3,300 according to IFC’s Doing Business 2012), this method was determined not to provide an accurate estimate.

percent of overall project costs.²² Accordingly, **resettlement costs for the Kosovo Lignite Power project are estimated to approximately equal \$33 million.**²³

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Daniel Kammen is the Class of 1935 Distinguished Professor of Energy with appointments in the Energy and Resources Group, The Goldman School of Public Policy, and the Department of Nuclear Engineering at the University of California, Berkeley. Kammen directs the Renewable and Appropriate Energy Laboratory (RAEL) and the Transportation Sustainability Research Center (TSRC). During 2010 – 2011 Kammen served as the first Chief Technical Specialist for Renewable Energy and Energy Efficiency. Kammen was named by Secretary of State Hilary R. Clinton is an inaugural Fellow of the U. S. State Department’s Energy and Climate Partnership for the Americas (ECPA).

AFFORDABLE ELECTRICITY FOR KOSOVO?

A Review of World Bank Group Cost Estimates
For New Lignite-fired Plants in Kosovo

Bruce C. Buckheit
October, 2011

Prepared for:
The Sierra Club
The Kosovar Institute for Policy Research and Development



EXECUTIVE SUMMARY

This report provides a review of economic issues within the “Terms of Reference” (“TOR”) that has been provided to the Kosovo Strategic Framework for Development and Climate Change (“SFDC”) Expert Panel to assist the panel in determining whether the proposed Kosovo Power Project meets World Bank policy on participation in coal-based power generation projects. It focuses on that part of the proposal that would provide for World Bank Group support for a new base load lignite-fired power plant (“Kosovo C”) and examines whether the TOR provides a sufficiently credible evaluation of available alternatives to provide a basis for World Bank Group participation in the Kosovo Power Project as proposed.

The Review concludes that the TOR does not provide a basis for a full consideration of the diversity of available technologies, costs, and solutions to Kosovo’s energy needs or a basis for a World Bank Group decision to support the proposed new lignite-fired plant. Further, the TOR does not provide a sufficient analysis of the available alternatives and costs to establish compliance with the World Bank Group policy criteria. Specifically:

- 1) No evaluation of the temporal variation in Kosovo’s electric consumption patterns (i.e., the variation in energy demand as that demand changes throughout day and the year) was made to determine the least cost mix of base load, load-following or peaking units was conducted. As a consequence of failure to properly define Kosovo’s energy demand, the TOR simply and erroneously assumes that Kosovo’s needs can be met most cost-effectively by a system that is made up entirely of base load units, even though a mix of base load and non base load units is routinely incorporated in economically efficient systems. The TOR does not examine this issue and make a determination that for, some reason Kosovo’s low-cost mix is different from such systems; it simply assumes that 600 MW of new **base load** generation at Kosovo C is needed;
- 2) The TOR limits the alternatives to be considered to **base load** lignite-fired, gas-fired and oil-fired units. Given the high fixed cost of large lignite-fired base load units, building and operating such new base load units at low capacity factors is not likely to be the cost effective solution to addressing Kosovo’s energy needs;
- 3) The TOR specifically precludes the SFDC Expert Panel from conducting a full and inclusive assessment process that gives proper consideration to the diversity of technologies, costs, and solutions that would lead to an economically, socially, and environmentally sustainable energy plan for Kosovo and the region;
- 4) The TOR fails to document whether **any** new **base load** capacity is needed or whether there is a regional market for non-peak base load generation. A reduction in “technical losses” associated with transmission system deficiencies (currently 15 percent) to levels achieved elsewhere in the region (5 percent) would save the same amount of power as the power shortfall relied on in the

TOR to establish the need for new generation. Planned transmission system improvements, completion of the Zhur hydropower plant (“HPP”) and refurbishment of Kosovo B plant as contemplated would provide generating capacity 30 percent higher than the reported current annual average demand.

- 5) The cost of electricity that would be provided by the Kosovo plant is grossly underestimated. The figures used in the TOR for the capital cost of construction and for future fuel costs are based on preliminary estimates that are not been refined or updated and are inconsistent with both regional costs as documented by unbiased governmental and commercial entities and with published inflation indexes for those items since the initial date of the estimate.
- 6) Importantly, the predicted cost of electricity is based on the assumption that all four surviving Kosovo units will operate 85 per cent of the time. There is insufficient demand, especially in off-peak periods, in Kosovo to support this level of operation. The overall system load factor in 2006 was 46 percent. If one assumes that Kosovo B operates as the base load unit, the capacity factor for the new Kosovo C units at current overall demand would be 20 percent; not 85 percent, thus tripling the cost of generation for this plant.
- 7) Providing a credible cost estimate of the likely cost of electricity from the proposed project is beyond the scope of this review. However, given the magnitude of the errors in the TOR estimate, it is reasonable to assume that the cost of electricity under the proposed plan might be three times higher than current costs. As an increase of this magnitude could have a significant adverse impact on the Kosovar economy and quality of life it is important that a credible determination of the cost and benefit of **all** options be made and discussed publicly.
- 8) The proposed project would result in higher emissions of all conventional and hazardous air pollutants than a mix of transmission system improvements, constructing the Zhur HPP, HPP swaps with neighboring countries, development of conservation, demand side (peak load) management programs and small natural gas-fired peaking units as needed.
- 9) The proposed project is not shown to be “carbon neutral” when compared to either the *status quo* or to the mix of available alternatives.

INTRODUCTION

The Kosovo government, with the assistance of the World Bank Group, USAID and others, has embarked on an ambitious effort to replace half of the generating capacity in Kosovo with new base load lignite-fired electric generating units and refurbish the other half of the capacity, all in the next 4 years. Several studies have been conducted and a “Terms of Reference” (“TOR”) has been provided to the Kosovo Strategic Framework for Development and Climate Change (“SFDCC”) Expert Panel to establish the parameters to be employed by the panel in determining whether the proposed Kosovo Power Project meets World Bank policy on participation in coal-based power generation projects. The SFDCC outlines the policy criteria for determining when the World Bank Group may support a particular coal project:

- “(i) there is a demonstrated developmental impact of the project including improving overall energy security, reducing power shortage, or access for the poor;
- (ii) assistance is being provided to identify and prepare low-carbon projects;
- (iii) energy sources are optimized, looking at the possibility of meeting the country’s needs through energy efficiency (both supply and demand) and conservation;
- (iv) after full consideration of viable alternatives to the least cost (including environmental externalities) options, and when the additional financing from donors for their incremental cost is not available;
- (v) coal projects will be designed to use the best appropriate available technology to allow for high efficiency and, therefore, lower GHG emissions intensity; and
- (vi) an approach to incorporate environmental externalities in project analysis will be developed.”

This review concludes that the TOR does not provide a sufficient analysis of the available alternatives and costs to establish compliance with the World Bank Group policy criteria described above. The TOR limits the available alternatives to **base load** lignite-fired, gas-fired and oil-fired units. In doing so, it fails to recognize that efficiently functioning electric power generating systems must have a mix of base load, load following and peaking assets. If the Kosovo Power Project goes forward as described, Kosovo will be served by four units that are designed as base load units, with no load following or peaking units.¹ Demand for electricity is significantly reduced at different times of the day, especially during certain seasons. For this reason, in a system where there is no intermittent capacity, the projected utilization rates of 85 percent cannot be achieved. As a result the projected cost of electricity is greatly understated and the potential for eliminating load shedding will be less than forecast. The TOR provides no information upon which the SFDCC Expert Panel can base a judgment as to the amount of **base load** capacity that is needed; nor any discussion of the need for load following or peaking generation capacity and how that capacity can best be obtained. However, it can reasonably be concluded that, given the high fixed cost of such units, building and operating new base load units at low capacity factors is not likely to be the cost effective solution to addressing Kosovo’s energy needs.

¹ Such a system is also not particularly cost effective means of providing “n-1 reliability.”

The TOR fails to compare the costs and benefits of rehabilitating existing units and does not recognize the very real prospect that attempting to replace such a large percentage of the country's base load capacity over a span of only a few years will cause a large increase in the cost of energy and adversely affect the economic development of Kosovo and the well being of the public. While the TOR argues that excess power can be exported to others in the region, it presents no market analysis to support this assertion. The TOR presents cost estimates for use by the panel that (1) are clearly out of date – some estimates go back to 2001; (2) were intended as “nominal” estimates at the time; not reliable figures; (3) are significantly different from figures provided by neutral government agencies and business entities for similar projects in the region and throughout the world; and (4) are demonstrably incorrect, based on published figures on the increase in cost since the original estimates were made.

The TOR also fails to incorporate into its analysis of the needs of the Kosovar system, ongoing projects that are underway, such as the reduction in “technical” losses due to deficiencies in the transmission system, the potential for development of the Zhur Hydropower Plant (“HPP”), and the ongoing development of Sibovc South Lignite Mine (“Sibovc Mine”), as well as options that may be available, such as the proposed new transmission line, a potential natural gas line, demand side management and power swaps with neighboring countries. By way of example and as described in more detail below, simply reducing current levels of “technical losses” associated with transmission system deficiencies would eliminate the reported current shortfall in generation.

The project assumes life extension and environmental upgrades at Kosovo B that would result in Kosovo B meeting EU Directive emission limits for existing units. While the new Kosovo C unit would meet somewhat more stringent limits than Kosovo B, it would not meet the far more stringent EU Best Available Techniques (“BAT”) guideline limits and would not have controls designed to minimize emissions of hazardous air pollutants such as mercury, hydrogen chloride, hydrogen fluoride, dioxins or heavy metals. If approved, the four base load system described in the Kosovo Power project would have substantially greater emissions than the mix of options in the available alternatives.

Finally, it must be noted that the proposed Kosovo Power Project has not been shown to be more efficient than the existing units would be if refurbished or to have lower greenhouse gas (“GHG”) emissions than a system solution that was comprised of a mix of (1) base load lignite-fired generation; (2) demand side management; (3) peaking hydropower from within Kosovo as well as that obtained from neighbors with high HPP resources (and possibly wind power); (4) reduction of transmission system losses and (5) peaking natural gas-fired units. It has also not been shown that the proposed Kosovo Power Project would serve the needs of the public at a lower cost than the alternatives describe above.

As in the United States, power costs associated with newly constructed generation assets in Kosovo will cost substantially more than the cost of generating power from existing assets that do not need to service debt. Most estimates put the levelized cost of energy (“LCOE”) of “new coal” at 50 to 75

percent higher than “existing coal².” Contrary to claims by some advocates, the fuel efficiency of the fleet has not improved over the past several decades. In the U.S. as recently as three years ago low efficiency circulating fluidized bed (“CFB”) designs were popular because of their ability to burn very poor quality coal and coal waste. While the documents describing the Kosovo Power Project are at times vague and sometimes contradictory, it does appear that the project anticipates utilizing two lignite-fired boilers, which may or may not be of CFB design. The Request for Proposals (“RFP”) requires a generation efficiency of only 37 percent and is designed to meet EU Directive Limits for dust, SO₂ and NO_x, but not the more stringent EU Best Available Technique (“BAT”) limits. Accordingly, it cannot be said that the project represents a meaningful reduction in GHG emissions from the existing units or significantly better dust, SO₂ and NO_x emission performance than would be required of the existing units were they to be refurbished and continue in service past 2016. Recently has there been a greater worldwide usage of higher efficiency supercritical pulverized coal (“SCPC”) plant designs that date back to the 1970s and an effort to improve on those designs. The RFP allows bidders to propose SCPC, ultra supercritical pulverized coal (USCPC) or supercritical circulating fluidized bed (“SCCFB”) designs, but requires only low efficiency subcritical designs.³ Even with the improved fuel efficiency of SCCFB, SCPC and USCPC designs, however, the high investment cost for new units results in a LCOE that cannot compete with the cost of generation of existing units.

The initial cost estimates for this project were preliminary, based on “nominal” figures and prepared eight years ago. Those figures are cited in the TOR notwithstanding the fact that in the interim there has been a substantial increase in the construction cost for similar projects associated with a dramatic increase in steel, copper and other essential commodities as well as a large increase in the market price for steam coal. The current estimates for the overnight capital cost and the fuel cost of the project are exceedingly low and lead to an unrealistically low calculation of the levelized cost of electricity. Insufficient allowance is provided in the estimate for the cost of any delay in the schedule. The cost to the developer of a delay of even several months can be substantial and much longer delays should be anticipated for the proposed project, given that the Republic of Kosovo has little recent experience with such projects and the lack of infrastructure in Kosovo to support such projects. In theory the government proposes to underwrite any cost overrun by adjusting the tariff to be paid to the developer, but experience in other countries has shown that this may prove to be politically difficult. Moreover, the difficulties experienced by the government in recovering the cost of generating electricity at current prices suggest that collecting a substantially higher tariff than the current rate may not be feasible.

Before committing significant additional resources to the project, the earlier preliminary cost estimates should be revised and refined, and a candid assessment of the impact of highly leveraged new base load generation capacity on retail electric rates should be provided, as well as a more realistic

² See, e.g. Deutsche Bank Group, *A Secure Low Carbon Future Energy Plan for the United States*, November, 2010

³ At this time no proposal has been made public.

assessment of employment impacts⁴. Importantly, temporal demand should be analyzed to ascertain the lowest cost mix of base load, load following and peaking generation assets. Overly optimistic cost and load estimates do not serve the interest of any party, since, at the end of the day the bill will have to be paid. However, such estimates can lead to investment decisions that may result in very much higher energy costs for Kosovars⁵.

REVIEW OF THE KOSOVO SFDCC EXPERT PANEL “TERMS OF REFERENCE”, JUNE 14, 2011

A preliminary review of the TOR was undertaken. It must be emphasized that this review was limited by time and available resources. While the overall project included development of a new Sibovc Mine, this effort apparently needs to go forward to provide fuel for existing generation at Kosovo A and B, irrespective of whether Kosovo C is constructed and does not provide a reason for constructing Kosovo C. Accordingly, the rationale for constructing a new mine was not reviewed. In the course of this review a number of errors and misstatements were found, but, given the available resources, only the most significant are addressed in this report.

LCOE

Perhaps the most significant error in the TOR is the representation that the estimated LCOE for “new” coal generation is 3.5–3.6 eurocents/kWh (\$0.05/kWh). This estimate is substantially lower than found in the literature and is inconsistent with recent history in the United States and Europe. The International Energy Agency in concert with the Nuclear Energy Agency and the Organization for Economic Cooperation and Development has published LCOE costs for brown coal/lignite burning plants in several countries in the region: the Czech Republic (\$0.114/kWh), Germany (\$0.0874/kWh), the Slovak Republic (\$0.141/kWh).⁶ For the United States, a LCOE of \$0.09/kWh is given for black coal⁷. According to the U.S. Department of Energy the LCOE for new U.S. coal generation will average \$0.0948/kWh in the U.S. with regional variation of between \$0.0855 and \$0.11/kWh.⁸

The underlying basis for this figure was reviewed and compared with published figures for key assumptions. The TOR indicates that its LCOE estimates were derived from two other documents prepared in conjunction with the project: (1) LPTAP Project Appraisal Document, 2006 and (2) World

⁴ For example, the TOR claims that there will be an increase in employment as a consequence of opening the new Sibovc mine, but fails to mention that this gain will be more than offset by job losses at the (hopefully) less efficient earlier mine the new mine will replace.

⁵ The near term impact on residential and commercial tariffs is different from the *levelized* cost of energy that forms the basis for the TOR evaluation. The cost of energy to the consumer includes transmission and distribution. The near term cost of generation that is passed on to the consumer will be dependent on a number of factors specific to the cash flow needs of the generating entity (including how import tariffs on plant equipment are addressed) and market considerations. No attempt has been made to evaluate these issues.

⁶ International Energy Agency, Nuclear Energy Agency and the Organization for Economic Co-operation and Development, *Projected Costs of Generating Electricity, 2010 Edition*

⁷ Typically combustion units that fire low rank coals are physically larger than those that burn coal with higher heating values.

⁸ [Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011](#). Released December 16, 2010. Report of the [US Energy Information Administration](#) (EIA) of the [U.S. Department of Energy](#) (DOE).

Bank staff estimates, Kosovo Lignite Power Initiative – Economic Analysis, 2006. The Project Appraisal Document appears to be the source of the LCOE estimate. A spreadsheet is provided on page 77 of that document that sets out the assumptions and the resulting LCOE. However, no support is offered for the assumptions made and the calculation is general in nature. It appears that this estimate may be derived from an earlier “Pre-Appraisal” for a larger project that was contemplated several years earlier. One cannot determine from the spreadsheet the amount of cost that is assigned to controls on particulate matter, SO₂ or NO_x and no decision has been made as to whether the unit will be subcritical or supercritical⁹. While there are a number of assumptions that one could question, the three that have the greatest impact on the overall evaluation are (1) the assumed capital cost of construction (2) the assumed capacity factor and (3) the assumed cost of fuel.

Capital Investment Required

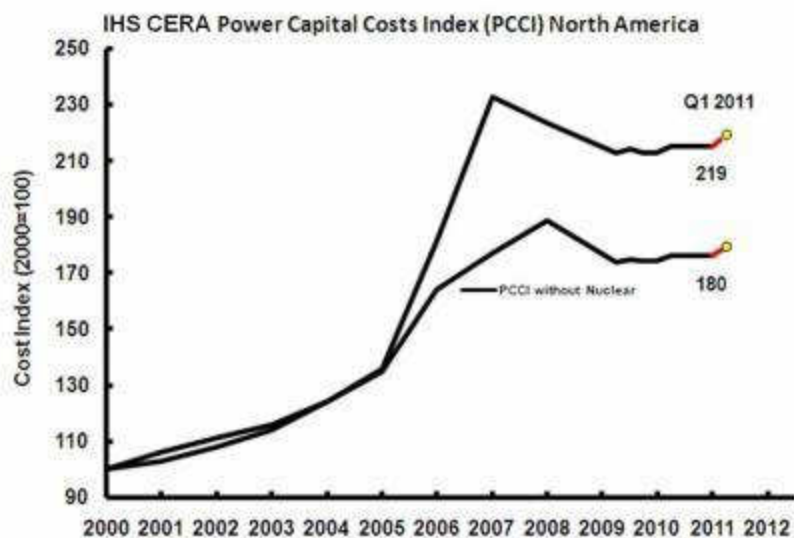
The LCOE estimate in the TOR assumes that the capital investment for the new facility would be 1000 €/kW (\$1,360/kW) of capacity or €660 million (\$897 million¹⁰) for the two new units if they are subcritical designs, and 1100 €/kW for SCPC¹¹. This is far lower than the International Energy Agency (“IEA”) overnight capital cost estimate of \$2,762/kW for brown coal fired generation in the Slovak Republic, \$3,486/kW for the Czech Republic or \$2,197/kW in Germany. It is also substantially lower than the average figure published by the U.S. Department of Energy of \$2,408/kW. Finally, it is inconsistent with the most recent estimates prepared for this project. Construction costs have shown extreme volatility in the past few years. The IHS CERA Power Capital Cost Index¹² is one of a number of sources that document the sharp rise in capital cost of construction since the initial “Pre-Feasibility” estimates were prepared for Kosovo C.

⁹ The terms “subcritical” and “supercritical” refer to whether the operating temperature and pressure of the boiler is greater than the point of criticality (where distinct liquid and gas phases do not exist) for the water/steam in the boiler. Overall efficiencies can be raised from about 39 percent for subcritical operation to about 45 percent for supercritical operation, thus reducing emissions of GHG and other pollutants per unit of electricity generated.

¹⁰ This figure assumes an exchange rate of \$1.36/€, the rate as of this date. The estimate notes that the exchange rate at the time was €0.7844 to one dollar which results in an estimate of \$838 million.

¹¹ A subsequent analysis (“Pre-feasibility studies for the new lignite fired power plant and for pollution mitigation measures at Kosovo B power plant Task 5 ,Financial and economic analysis of the new TPP, Draft Final, February, 2006) estimated the investment cost of two 300MW units to be 1091€/kW (\$1484/kW) for CFB boilers and 1202€/kW (\$1635/kW) for PC boilers. This analysis reports that it is employing “nominal” values rather than project specific values. The TOR does not reflect these estimates, but continues to rely on the earlier figures.

¹² See, <http://press.ihs.com/press-release/energy-power/power-plant-construction-costs-cost-pressures-returning>. See, also, <http://www.decc.gov.uk/assets/decc/statistics/projections/71-uk-electricity-generation-costs-update.pdf>



Future cost predictions continue to show extreme volatility and higher costs. The overnight capital cost estimate of the highly respected U.S. Energy Information Agency for 2011 is 25 percent higher (\$2,844/kW) than that for 2010 (\$2,271/kW)¹³.

To be sure, there is a range in the published figures. The U.S. data includes one unit that has a capital cost of \$1,355/kW – but also a unit that cost \$5,350/kW. As discussed below, the TOR assumes that the best available control technologies for SO₂ and NO_x controls will not be employed in all options, which would reduce the capital cost of the project but increase the environmental costs by a greater amount as well as the environmental benefit claimed by the project. However, while the level of environmental performance falls short of what has been demonstrated in practice, it does meet EU Directive limits, but not BAT requirements. Decisions respecting the use of two pollution control technologies can have a significant impact on the cost of the Kosovo C Plant. The Project contemplates installation of Flue Gas Desulfurization system (“FGD”) if a Pulverized Coal (“PC”) is design is used, but not if a Circulating Fluidized Bed (“CFB”) design is chosen. FGDs are relatively large and expensive pieces of equipment, the cost of which can approach 10 percent of overall plant costs.¹⁴ The “Pre-Feasibility” cost estimate assumed that that the cost of the FGD would be offset by the more expensive cost for a CFB unit and assigned the same construction cost for each option. This is not an unreasonable assumption for the early stage of the process, but should be revisited before a determination of whether such units would constitute the lowest cost option is made.

¹³ Ref, http://www.eia.gov/oiaf/beck_plantcosts/index.html

¹⁴The U.S. Energy Information Agency places the 2009 average cost of FGD controls at \$186.73/kW <http://www.eia.gov/cneaf/electricity/epa/epat3p11.html>. However, there is a large variability in this figure; most of the units in this database are retrofit units that can be anticipated to cost more than new units, where the design anticipates the pollution control.

The proposed design also does not contemplate installation of an SCR, another fairly expensive, but highly cost effective, pollution control device. SCR costs range from \$100/kW to 200/kW.¹⁵ If required, this device would reduce NO_x emissions by up to 90 percent, but would increase the estimate of the LCOE. This does not impact the comparison of the cost of generation in other countries, because this technology has not been regularly required at lignite burning facilities with relatively low natural NO_x emission levels. Less capital expensive techniques are available to reduce NO_x emissions by 40 to 60 percent from uncontrolled levels.

Even in the United States, the cost of construction of new power plants can vary by up to 50 percent, depending on the region of the country in which it is installed. There are a number of factors that would suggest that the cost of construction in Kosovo is likely to be above the average figures provided.

- **Kosovo does not have the capacity to manufacture the specialized components needed** – only a few countries do. Accordingly, the plant will essentially be imported and likely have to be shipped several thousands of miles.
- **Kosovo is land locked and so, the large components that will be fabricated elsewhere will then have to be trucked many miles over poorly maintained roads or rails** – negotiating switchbacks, tunnels and possibly requiring air lifting of heavy components at certain points.
- **Kosovo does not have the infrastructure to support such construction.** Accordingly, specialized equipment will have to be transported and maintained onsite, rather than being leased as needed.
- **Kosovo does not have a sufficient number of engineers, boilermakers and welders experienced in the construction of large power plants.** Thus, while some local labor can be employed, much of the labor will have to be brought in from other countries and housed on or near the site.
- While partial or full loan guarantees will help reduce financing costs, **the perception of the risk of investing in Kosovo will push lending costs and investor return demands upward.**
- **The planned Kosovo C units, at 300 ME each are relatively small.** Published cost figures show a clearly increased cost of construction per MW of capacity for smaller units.

Capacity Factors – Peaking vs. Base Load Generation

Electricity cannot be stored in any meaningful fashion¹⁶ and so the amount of electricity that is produced at any point in time must be as a response to the demand within that system at that same point in time. Demand rises and falls with time of day, season of the year and weather, as each consumer turns on the lights or starts to cook a meal or as a factory commences a high demand activity. Accordingly, the low cost solution for meeting an area's energy needs will ordinarily be a mix of base

¹⁵ See, Northeast States for Coordinated Air Use Management, *Control Technologies to Reduce Conventional and Hazardous Air Pollutants from Coal-Fired Power Plants*, March 2011. <http://www.nescaum.org/documents/coal-control-technology-nescaum-report-20110330.pdf/>

¹⁶ Admittedly, the water that generates hydropower can often be stored during wet periods for some period of time.

load units that have a high capital cost, but low operating costs and overall COE, load-following units that have lower capital costs, higher operating costs and overall COE and peaking units, with lowest capital costs, but high operating costs and COE. In developed countries, base load units might be large coal-fired or nuclear plants that have long ramp up time¹⁷, load following units might be smaller coal-fired units or combined cycle gas-fired units, while peaking units will typically be very small oil or gas-fired combustion turbines. Hydropower plants are especially well suited to peaking applications as the ramp up time can be quite rapid and the source for the power is susceptible of storage. In estimating cost of generation for base load units an 85 percent capacity factor is commonly employed, while peaking units may have utilization factors of 15 percent or less.

The “Kosovo C” plan put forward in the TOR makes no provision for temporal variation in load and assumes that Kosovo’s electrical needs will largely be met by four base load units. No evaluation was conducted to determine the mix of base load, load following and peaking generation that would best fit Kosovo’s usage profile. Instead, the TOR assumes that nearly all of Kosovo’s demand will be met by four base load units. As a consequence, the system operator would need to continue to shed load during peak periods and/or continue to operate generating resources at lower utilization levels during non-peak periods. In the absence of units designed to respond to variation in load, it can reasonably be forecast that the Kosovo C units will not operate 85 percent of the time. For this reason use of an 85 percent capacity factor in the TOR and related documents for estimating LCOE is not appropriate. The *Kosovo Energy Sector Profile* published in 2005 reveals that load factors for existing generating units varied from 2.5 percent to 65 percent; the average load factor for the Kosovo system was 46 percent. The Profile asserts that these low load factors were the consequence of poor maintenance, but also references sharply higher load during peak demand periods. Until this issue is addressed, the least cost generation mix cannot be determined. However, it is possible to estimate the overall load factor for the proposed four base load unit system that has been proposed. **Using current demand, the load factor for these units would be below 50 percent.** Allowing the refurbished units to run as base load units (85 percent load factor) current levels of demand would result in utilization rates of less than 20 percent for the Kosovo C units even if excessive transmission losses are not corrected¹⁸. The utilization rate has a dramatic effect on LCOE.¹⁹ While fuel costs decrease proportionally, the capital cost of construction (and associated financing costs) remains constant as generating capacity is idled. This fixed cost is then assigned to a smaller quantity of generation and must be paid for by increases in the per kW tariff paid by consumers.

The TOR asserts that any generation that is not needed in Kosovo could simply be exported to neighboring markets and some sales of electricity to neighboring countries have occurred. However, the TOR does not consider temporal load factors in those areas and does not establish that there is a market

¹⁷ Such units cannot respond to short peaks or drops in demand without compromising the life expectancy of the unit.

¹⁸ The operators of the future plant might prefer to run the Kosovo C units as “base load” and allow the Kosovo B units to operate at lower load factors. For purposes of analyzing whether there is a need for additional generation, however, the existing facility should be dispatched first.

¹⁹ Under these conditions, the LCOE for the new Kosovo C units could exceed €150/MW.

for new base load generation of this magnitude in those areas. Attempting to serve peak demand in those areas with base load units simply broadens the problem and increases the high cost and inefficiency associated with operating capital intensive base load plants at low load factors.²⁰

What additional *base load* generation does Kosovo need?

The TOR, Annex 1, asserts that the need for 600 MW of additional base load generation is demonstrated by the 2009 Annual Report Energy Report from Kosovo's Energy Regulatory Office that

“[t]he gap between unmet electricity demand and generation was 477 GWh in 2009. The medium growth demand scenario 3 forecasts that electricity demand would rise to about 7,000 GWh in 2018.”

These estimates do not support the need for 600 MW of new base load capacity as 477 GWh is only 64 MW of base load capacity²¹ and 7000 GWh is only 340 MW of additional²² base load capacity²³. The 2009 Tariff application filed by KEK reveals that technical and "unaccounted for" losses amount to 1,400 GWh in 2008. This amount is three times the shortfall relied on to justify new base load capacity. **Simply reducing the reported “technical losses” from 15 percent to 5 percent of generation would save the reported current shortfall in generation.**²⁴

The TOR predicts that there will be 7,000 GWh of electric power demand in Kosovo by 2016. This represents a 48 percent increase over 2008 consumption. Given the current economic climate in Europe (and elsewhere), an increase of this magnitude is unrealistic. Completing the refurbishing of Kosovo B, addressing transmission system losses as discussed above and completing the Zhur hydropower²⁵ plant project would provide an overall capacity of 6,146 GWh – 30 percent more than 2008 consumption. Additional reserve margins can be created by demand side management programs, minimizing theft of power and. Here it should be noted that the cost of generation avoided by utility managed conservation and demand side management (peak shaving) programs in the U.S. is reported to be less than \$50/MWh.²⁶ This amount is less than the LCOE projected for new coal generation in the U.S. and less than the likely LCOE for the Kosovo Power Project.

Kosovo may well have a need for additional peaking and or load following capacity. This potential need was not addressed in any of the earlier studies and should be evaluated in depth before

²⁰ This inefficiency extends beyond the financial issues raised; thermal efficiency and pollution control device efficiencies tend to decline with variations in load.

²¹ This calculation assumes a capacity factor of 85 percent.

²² If Kosovo B were to operate at a capacity of 600MW and a load factor of 85 percent, it would generate 4,468 GWh of electricity, leaving a need for 2,532 GWh of electricity.

²³ Much of the shortage of electricity was associated with a shortage of fuel, not generation capacity.

²⁴ In its 2009 Tariff Application KEK reports that in 2008, 704,843 MWh of electricity (15 percent of total generation) were lost due to technical losses that were assigned to deficiencies in transformers and other elements of the transmission system. (704,843 MWh x .67 = 472,444 MWh or 472 GWh). This is in addition to 693,899 MWh which is reported as “unaccounted for.” Presumably some amount of system demand that results from theft of power would be reduced if the user is required to pay for it.

²⁶http://www.eia.gov/cneaf/electricity/epa/epaxfile9_7.pdf

committing significant resources to additional base load capacity. The use of base load units as load following or peaking units should be reflected in the load factor used to calculate the COE.

Fuel Costs

The LCOE estimate in the TOR assumes a fuel cost of €0.89/GJ.²⁷ This assumption is based on “Pre-Feasibility” estimates of the capital and operating costs of opening a new lignite mine that relies on a 2002 study of a proposed new mine and does not incorporate documented worldwide producer cost increases due to inflation or inflation rates within Kosovo. The lignite cost estimate is also substantially lower than lignite and brown coal costs published by the CARDS Programme at that time for countries in the region:

Bosnia & Herzegovina	1.71 €/GJ
Bulgaria	0.88 €/GJ
FYR Macedonia	1.34€/GJ
Montenegro	2.44€/GJ
Romania	1.52€/GJ
Serbia	1.34€/GJ

While some trading occurs, because of the low heat content per volume of lignite, there is no commodity market and it is reported that prices tend to reflect the ease or difficulty of the mining and subsequent processing of the resource. The 2002 study reported that the indicated price was an “internal” KEK price, that a higher price was charged to private customers and that the cost did not include lignite management in the stockpile. More important is the fact that these estimates are now 10 years old and there has been a significant increase in the cost of producing lignite since the estimate was generated. The U.S. producer price index published by the Bureau of Labor Statistics reports that the cost of various lignite products has increase by 170 percent to 250 percent since December of 2001 and that some lignite products costs have increased by as much as 35 percent since June of 2008.²⁸ A review of the 2009 KEK Tariff Request suggests that these costs have indeed increased significantly.²⁹ Moreover, the lignite prices for the future will be determined by the relative ease with which lignite can be extracted from the new Slibovc Mine, not the characteristics of mines that had been previously developed and so it can readily be concluded that they are not well understood at this time.

Far more information is available today about the likely cost of fuel from the new mine

²⁷ GJ or Gigajoule is a measure of the energy content of coal and is often used as a way of comparing the cost of fuels with different head content. At the reported energy content of Kosovar lignite, this amounts to approximately €7.50/metric ton (“mt”).

²⁸ <http://www.bls.gov/web/ppi/ppitable06.pdf>

²⁹ Additional information is needed before firm conclusions can be drawn. In particular, the nature of the expenditures by the KEK Supply operation were not available at this time and some portion of KEK mining needs is presumably for cleaning up earlier environmental contamination and closing the old mine. Nonetheless, at a “ballpark level” the needs attributed to KEK’s mining operations in the 2009 Tariff Request are in the range of €1.50/GJ.

(including, for example, resettlement costs and overburden disposal costs) than was known in 2002. Rather than relying on 10 year old information, current data, including the extent of any KEK subsidy of lignite prices (that will presumably be eliminated if the operation is privatized), should be obtained, provided to the public and factored into more accurate fuel costs for the alternatives.

LEAST COST ALTERNATIVES ANALYSIS

Reducing electric demand by insulating residences, providing “time of day” rates and feed in tariffs for large commercial users and repairing known deficiencies in the transmission systems are quite likely to be the lowest cost measure for the Kosovar ratepayers – but these options have not been analyzed and their cost effectiveness has not been compared to the proposed options. In addition, hydropower in the region has been shown to be cost effective – but the impact and effectiveness of the planned Zhur HPP is not considered in the analysis. Given the substantial hydropower resources in the region, additional analysis of a wind/hydropower/thermal power exchange program, such as that employed by Denmark³⁰ and its neighbors should be conducted. So, too, should be the effect of reducing unit size and diversifying the mix of generation in reducing overall system costs by lessening the amount of reserve capacity dedicated to compensating for a unit that goes offline. The TOR examines none of these options. It also fails to consider the mix of base load, load following and peaking generation that will provide the low cost solution to Kosovo’s energy needs. Instead, the TOR limits the alternatives analysis to a review of large, new baseline capacity fueled by lignite, oil and gas. Future gas price options are assumed to be too high for base load application, but no effort is made to evaluate gas-fired combustion turbines for peaking applications or combined cycle gas turbines for load following applications. The TOR devolves to an analysis of three options for 500-600 MW of new lignite-fired base load generation capacity. The resulting analysis dramatically understates the cost of electricity for a “baseline only” system forced to balance a continually varying load and fails to address the potential adverse impact on the Kosovar economy and standard of living of sharply increased costs of electricity. This mix of generation is contrary to what has been found to be cost effective in other countries, including countries with significant coal and lignite reserves.

ENVIRONMENTAL ISSUES

The TOR takes the position that the existing Kosovo units should be retired because they are “old³¹” and because Kosovo A is “the dirtiest plant in Europe.” The environmental assessment identifies high particulate matter (“PM”) emissions as a significant issue. However, much of the PM problem is

³⁰ See, e.g. http://en.wikipedia.org/wiki/Wind_power_in_Denmark

³¹ The age of the facility is not as relevant as its physical condition. These facilities are among the “older” units in service, but there are many similar units throughout the world that have undergone life extension and environmental upgrade programs. The average age of coal-fired units in operation in the United States is over 40 years, and in some areas (e.g. the State of Michigan) the average age is over 50 years. These units are expected to remain in service for several decades. When faced with regulations requiring either shutdown or significant expenditures for environmental upgrades, most of the U.S. fleet of coal-fired plants chose to upgrade those facilities.

described as related to ash handling and fugitive emissions as well stack emission rates. Ground level emissions impact the nearby community far more than stack emissions. These emissions can and should be addressed, and the relevant systems should be improved, irrespective of whether a new plant is built. Reportedly, both Kosovo A and Kosovo B are equipped with electrostatic precipitators (“ESP”) for control of PM stack emissions. Those controls had been allowed to deteriorate over the past two decades, but the ESP servicing the Kosovo B unit is being redesigned and refurbished. The June 2008, Environmental Assessment reports that no measurements of the rate of emissions for Kosovo A or Kosovo B are available,³² but provides engineering estimates the current PM, SO₂ and NO_x emission rates. The Environmental Assessment also reports the applicable emission EU rates (which are akin to New Source Performance Standards (“NSPS”) in the U.S. regulatory structure. As in the U.S. these emissions limits are only infrequently updated and so advances in pollution control technology are reflected in Best Available Technique determinations and the emission limitation that flow from those technologies³³. The reported current emission levels, applicable EU limits and BAT guidance levels are

	PM (mg/Nm ³)	NO _x (mg/Nm ³)	SO ₂ (mg/Nm ³)
Current Kosovo A emissions	700-1300	~700	300
Current Kosovo B emissions	150-230	500	400
Applicable Kosovo A/B Limit ³⁴	50	500	400
Applicable Kosovo C Limit ³⁵	30 ³⁶	500	200
Nominal BAT for modified units	5-20	50-200 (PC)	20-200 (PC) 20-200 (CFB)
Nominal BAT for new units ³⁷	5 -10 ³⁸	50-150 ³⁹	20 -150(PC) ⁴⁰ 100-200 (CFB)

³² This appears to be contradicted by other documents in the record.

³³ “Recital 8 of the LCP Directive states that “Compliance with the emission limit values laid down by this Directive should be regarded as a necessary but not sufficient condition for compliance with the requirements of Directive 96/61/EC regarding the use of best available techniques. Such compliance may involve more stringent emission limit values, emission limit values for other substances and other media, and other appropriate conditions.” In the U.S., the analogous process is the Best Available Control Technology (“BACT”) review under the PSD program of the Clean Air Act.

³⁴ These are the limits that would apply if Kosovo A were to be operated in the future and rated greater than 500 MW. Currently Kosovo A is subject to limit of 1200 mg/Nm³ (SO₂); 600 mg/Nm³ (NO_x) and 100 mg/Nm³ (PM), applicable to units that are to be closed by 2016, but actual emissions are reportedly far less because of the characteristics of the coal employed.

³⁵ Assuming construction commences prior to January 1, 2016. Thereafter, the applicable limit would be 200 mg/Nm³. This also assumes that an obligation to install BAT is not imposed.

³⁶ The Environmental Assessment reports this figure as 50 mg/Nm³.

³⁷ See, European Commission, *Integrated Pollution Prevention and Control Reference Document on Best Available Technologies for Large Combustion Plants*, July, 2006. (“BAT Reference Document”). ftp://ftp.jrc.es/pub/eippcb/doc/lcp_bref_0706.pdf

³⁸ The BAT Reference Document indicates that FGD, combined with a fabric filter (bag house) and sorbent injection are considered BAT for limiting emissions of mercury.

³⁹ BAT reference emission rate does not assume use of SCR; with SCR the emission rate would be substantially lower. The 2006 BAT Reference Document is currently under review.

⁴⁰ The BAT reference emission rate does not assume a combination of CFB with FGD, as has been employed in the AES Puerto Rico and Dominion VCHP (US) plants, among others. With this combination, an even lower rate of emissions has been demonstrated.

From this information several conclusions can be drawn respecting the relative stringency of EU Directive Limits:

- (1) Since the going forward emission limits would be the same, **Kosovo C unit would provide no demonstrable improvement over PM emission performance of existing units.** Substantial improvements would be required in the rate of emissions of PM from existing Kosovo units if they are to operate in the future but both plants have had PM control devices installed that can be refurbished at far lower cost than new generation.;
- (2) Since each of the units would be subject to the same emissions limitation going forward, **no demonstrable NO_x emissions performance improvement can be shown for Kosovo C over refurbishment of Kosovo B.** NO_x emission rates for existing Kosovo units are driven by the low heat value and high moisture content of the fuel. The reported current performance is near required future levels and could likely be achieved by relatively low cost installation of low NO_x burners and over fire air, the same technology anticipated for Kosovo C.
- (3) **The relatively low reported uncontrolled SO₂ emission rates from Kosovo A and B appear to be a function of fuel characteristics and are estimated to meet (or come close to meeting) applicable EU limits.** Some form of minimal added SO₂ reduction technology might be required at Kosovo B. **The Kosovo C SO₂ limit is half of the limit applicable to Kosovo A and B and would require better performance in the future than that required of the refurbished Kosovo B unit.**

The proposal for the Kosovo C plant requires only that the new plant meet minimum EU Directive standards; it does not require that the plant use BAT. Importantly, there is no obligation under current Kosovar law to utilize BAT. While the law would likely change once Kosovo is admitted to the EU, it would provide no particular benefit if, the Kosovo C plant commences construction before a change in law is made effective. The proposed plant assumes low NO_x burners and over fire air for NO_x control, adding selective catalytic reduction (“SCR”) would substantially improve NO_x reduction. The proposed plant does assume an unspecified level of FGD utilization if a pulverized coal design is employed, but not if CFB design is selected. The BAT guidance emission limits that would be applicable to the construction of Kosovo C are only modestly more stringent, if at all, than those that would apply to the refurbishment of Kosovo B.

Finally, while there is some level of discussion of the environmental benefits of high-efficiency designs, that reduce emissions of GHG, mercury and other toxic air pollutants as well as the conventional pollutants discussed above, the RFP requests only a minimum thermal efficiency of 37 percent⁴¹. This level of efficiency is far below what can be achieved at new plants and would lead to GHG and other emissions approximately 10 to 15 percent greater than would occur if currently achievable efficiencies were required. Moreover, the specified minimum level of thermal efficiency has been achieved at units designed and built decades ago and may be no greater than the design efficiency the Kosovo A and B units, assuming proper operation and maintenance of those units.

⁴¹ The average thermal efficiency of all lignite Large Combustion Plants (“LCP”) in Germany is given at 38 percent.

It has been represented that the project is carbon neutral. This statement is correct only if you just limit the project evaluation to replacing Kosovo A generation with Kosovo C generation, and you only consider the emissions after completion of construction of the Kosovo C plant and demolition of Kosovo A. Replacing Kosovo A with a new Kosovo C will involve very substantial GHG emissions from the manufacture and transportation of very sizable quantities of steel, concrete and other commodities for the new units as well as emissions associated with the decommissioning of Kosovo A. It is also not true if the construction and operation of the Kosovo C plant is compared to the mix of available options described in this report or if one assumes that you are running all four units at an 85 percent load factor compared to today's overall load factor of 46 percent.

CONCLUSION

The information provided in the TOR does not provide a basis for determining that the proposed Kosovo C project is in the county's best interest. Until Kosovo's load pattern is defined, the most cost effective mix of base load, load following and peaking units cannot be determined. It can reasonably be asserted, however, that attempting to serve the constantly varying electric demands with only base load designed units is not the most cost effective mix. Where the average load factor for the system is currently under 50 percent; assuming that, with the refurbished Kosovo B units in service, the Kosovo C units will also run 85 percent of the time is unrealistic. Assuming a reasonable load factor for these units doubles the predicted LCOE of those units. If one then simply adjusts the outdated cost estimates to reflect the change in the Power Capital Cost Index, the effect is to roughly redouble the predicted LCOE. The World Bank Group should carefully consider the risk of imposing such a large increase in the cost of electricity on the Kosovar economy before participating in such an effort. It should require an update of the true costs of the project and the impact on rates charged to consumers and businesses. It should also require a market study to determine whether there is any demand for off-peak power in the region.

It is clear that Kosovo has a need for significant capital expenditures to improve the quality of its electric power generating system, but only a limited ability to fund such projects. If approved, the Kosovo C project will likely constrain funding for other projects that, if considered in the alternatives analysis, would likely prove to be more cost effective and lock Kosovo into an inefficient "four base load unit" system for decades to come. Reducing transmission losses, funding the Zhur HPP project and conservation/demand side management programs have been mentioned, as has the likely need for natural gas fired load following and peaking units. None of these options was evaluated in the alternatives analysis. The World Bank Group should insist that an objective analysis of all available options be undertaken before agreeing to participate in the Kosovo C Project. Finally, it should be noted that this Review did not address the TOR's failure to incorporate the external costs of the proposed Kosovo C plant in its evaluation of the potential options.

Reevaluating Kosovo's Least Cost Electricity Option

Preliminary Evaluation of the World Bank's December, 2011 "Background Paper,
Development and Evaluation of Power Supply Options for Kosovo"

Bruce C. Buckheit
January 2012

Prepared for:

The Sierra Club
The Kosovar Institute for Development Policy
(INDEP)



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FOUNDED 1892

EXECUTIVE SUMMARY

The Kosovo government, with the assistance of the World Bank Group, USAID and others, has embarked on an ambitious effort to replace half of its electric generating capacity with new base load, lignite-fired generating units, while refurbishing the other half of its generating capacity, over the next 4 years. Analysis of initial project documents provided by the World Bank Group revealed a number of critical flaws.

Subsequently the World Bank commissioned further analysis (World Bank Background Paper) that re-evaluated the electric supply options previously presented. The Background Paper corrects a number of grossly inaccurate assumptions in the earlier analyses: it recognizes the need for a diversity of energy generation capacity, the presence of significant clean energy generation potential, and the need to reduce losses and invest in energy efficiency. Nevertheless, it still fails to provide an accurate assessment of the least cost energy options for Kosovo. Specifically:

The Background Paper fails to demonstrate the need for a new base load coal plant: The Background Paper erroneously concludes that over 1,200 MW of base load generating capacity should be brought online before load following and peaking generating needs are determined, current distribution waste and theft are reduced to reasonable levels, and end use efficiency opportunities are quantified and implemented.

The Background Paper fails to analyze the economic impacts to the Kosovo economy, or to average ratepayers, of a costly new coal plant: Significant tariff increases will be needed to support financing of the simultaneous development of a new mine, renovation of Kosovo B plant and the construction of the proposed new 600 MW plant. However, Background Paper significantly underestimates the tariff increases that will be required in the near term,¹ and fails to examine the impacts of these increases on the Kosovo economy and quality of life of ratepayers.

¹ The analysis also adopts the incorrect assumption that tariffs have already been increased to fund the project.

Recommendations

Reduce losses and invest in energy efficiency: Reducing technical and non-technical losses to 5 percent or less should be a top priority and should be completed within the next 5 years. In addition, implementation of energy efficiency programs should have higher priority than construction of new generation capacity.

Invest in alternative peaking generation: It is neither technically nor economically feasible to cycle base load units such as proposed new coal plants to meet peaking needs. Investments in appropriate peaking assets are therefore required. Such assets include:

1) Hydro: Development of the Zhur HPP is a critical component in addressing Kosovo's peaking needs and should be completed within 5 years. Further detailed analysis of load patterns should be conducted to determine whether Zhur HPP and smaller proposed hydropower plants are sufficient to supply present and anticipated peak power needs.

2) Imports: A "time-of-day" analysis of past power purchases should be conducted to determine whether continued purchases of electricity from Albania are more cost effective than development of additional thermal peaking power.

3) Natural Gas: Development of a natural gas transmission line would appear to offer numerous advantages for fuel diversity in areas of space heating, cooking, commercial/industrial development and transportation, in addition to providing a firm backup for renewable sources of electricity.

4) Wind: The analysis of wind power potential cited in the WB Background Paper presents a more optimistic portrayal of potentially available wind resources than reflected in original project documents; importantly the wind resource is aligned with the time of greatest demand (winter). Hydropower and wind power are complementary sources – the peaking capacity of hydropower resources is thus extended where wind power is also available.

Renovate existing Kosovo B units: Renovation of Kosovo B plant is a top priority that should be completed before Kosovo A units are closed. Consideration should be given to staging the renovation of Kosovo B over

several shorter outage periods rather than attempting the renovation of each unit in a single eight-month outage.

Ultimately, our assessment of the World Bank's new paper strongly argues for the need for an independent alternative assessment that considers in analytic detail an added range of energy supply, transmission and distribution management, and end-use energy options. The Renewable and Appropriate Energy Laboratory at "the University of California, Berkeley (<http://rael.berkeley.edu>), is engaged in such an assessment and their findings will provide a much needed contribution to the future direction of Kosovo's energy system.

BACKGROUND: THE EXPERT PANEL TERMS OF REFERENCE AND ITS SHORTCOMINGS

In accordance with the World Bank's Strategic Framework for Development and Climate Change ("SFDCC"), the Bank drafted a "Terms of Reference" (TOR) for an Expert Panel to assess whether the proposed Kosovo Power Project meets World Bank policy requirements for coal-based power generation projects.

In November, 2011, the Sierra Club and the Kosovar Institute for Development Policy commissioned a review of the TOR by an independent consultant ("Sierra Club Review²"), which was provided to the World Bank and other interested parties. The Sierra Club Review found:

The TOR does not provide a sufficient analysis of the available alternatives and costs to establish compliance with the World Bank Group policy: The TOR analysis of the available alternatives and their costs was not sufficient to demonstrate that the proposed Kosovo Power Project would serve the needs of the public at a lower cost than the available alternatives, as required by the Strategic Framework on Development and Climate Change.

The project as described in the TOR does not address Kosovo's need for a mix of base load, load following, and peaking capacity: Efficiently functioning electric power generating systems must have a mix of base load, load following and peaking units. Nevertheless, the TOR limited its alternatives assessment to **base load** options. In so doing, it failed to recognize that given the high fixed cost

² Affordable Electricity for Kosovo? Available at: http://action.sierraclub.org/site/DocServer/Review_of_TOR_Final.pdf?docID=8341

of base load units, building and operating them at low capacity factors is not cost effective. Moreover, the TOR provided no information upon which the SFDC Expert Panel could assess the relative amounts of **base load**, load following and peaking generation capacity that is needed. Nor did it provide any discussion of how load following and peaking capacity can best be obtained. Finally, the TOR presented no market analysis to support its assertion that a ready export market for excess base load power exists. As a result of these shortcomings, the TOR significantly underestimated the costs of electricity and overstated the potential for eliminating load shedding;

The project will significantly raise electricity rates for average Kosovans: The TOR cost estimates for new lignite-fired generation were significantly below published estimates of the current cost of such units, and did not account for the increase in cost since the original estimates were made. Replacing such a large percentage of the country's base load capacity over a span of only a few years will cause a substantial increase in the cost of energy that will adversely affect the economic development of Kosovo and the well-being its people; and

Kosovo does not need a new 600 MW base load coal plant: The TOR failed to analyze the impacts of ongoing projects such as the reduction in "technical" losses due to deficiencies in the transmission system, and the potential for development of the Zhur Hydropower Plant ("HPP"); or to assess other options such as the proposed new transmission line, a potential natural gas line, demand-side management initiatives, and power swaps with neighboring countries. Reducing current levels of "technical losses" associated with transmission system deficiencies and non-technical losses (theft) and adding needed peak generating capacity would eliminate the reported current shortfall in generation, and therefore the need for new lignite fired generation.

Ultimately, the Sierra Club Review demonstrated that the proposed Kosovo Power Project has not been shown to be more efficient than a system-wide solution that includes a mix of (1) reduction of transmission system losses; (2) demand side management; (3) base load lignite-fired generation from a refurbished Kosovo B plant; (4) peaking hydropower from within Kosovo and from neighbors with high HPP resources (and possibly wind power); and (5) peaking natural gas-fired units.

ANALYSIS OF WORLD BANK BACKGROUND PAPER

Subsequent to the Sierra Club Review, the World Bank commissioned further analysis by an external consulting firm and published it as a new “Background Paper” (“World Bank Background Paper”) that re-evaluated the electric supply options presented in the TOR. The World Bank Background Paper corrects a number of grossly inaccurate assumptions in the TOR. It recognizes (a) the need for a diversity of energy generation capacity including a mix of base load, load following and peaking generating assets; (b) there is significant clean energy investment potential for renewable and other sources of load following and peaking generating resources; and (c) provides the data proving the need to reduce losses and invest in energy efficiency to eliminate the need for new capacity construction if technical and non-technical losses are reduced to reasonable levels and if energy efficiency programs are implemented.

Further, the WB Background Paper recognizes that there is insufficient information to accurately project future electric demand in Kosovo³. The WB Background Paper also provides additional useful data concerning load patterns in Kosovo that had not previously heretofore been available and which help to illustrate the type of analysis that should be undertaken to develop the least cost solution to Kosovo’s energy needs.

These are welcome improvements over the original TOR. However, much of the substance of our original critique remains. Our preliminary review of the Background Paper finds the following:

The WB Background Paper fails to demonstrate the need for a new base load coal plant: It fails to identify the need for current or future base load generation. It erroneously concludes that over 1,200 MW of base load generating capacity should be brought online before load following and peaking generating needs are determined, current distribution waste and theft are reduced to reasonable levels, and end-use efficiency opportunities are quantified and implemented.

The WB Background Paper fails to properly analyze the economic impacts of a costly new coal plant on ratepayers and the Kosovo economy: Significant tariff increases will be needed to finance the simultaneous

³ Background Paper: Development and Evaluation of Power Supply Options for Kosovo. Available at: http://siteresources.worldbank.org/INTENERGY2/Resources/Kosovo_generation_options_report_12312011.pdf

development of a new mine, renovation of the Kosovo B plant, and the construction of the proposed new 600 MW plant. However, Background Paper significantly underestimates the tariff increases that will be required in the near term, and fails to examine the impacts of these increases on the Kosovo economy and quality of life of ratepayers.

The WB Background Paper projects the anticipated average or “levelized” cost of generation throughout the period by using the LRAIC or “Long Run Average Incremental Cost” analysis, which averages the discounted cost of the project over the period from 2011 to 2050. This approach ignores the fact that investors and lenders will require a tariff that allows repayment of debt and equity over a much shorter period (typically 5-10 years for equity and 15 years for debt). For this reason, development of the proposed new Kosovo plant will require much higher tariffs in the near term than suggested in the WB Background Document.⁴ To clarify the magnitude of the tariff increases that would be necessary to repay lenders and investors, the Bank should conduct a year-by-year analysis of the projected annual revenues needed to support the proposed capital improvements. This, then, should be compared with the year-over-year revenue needed to finance other alternatives, including the more modest approach suggested herein. Each of these analyses should incorporate more reasonable estimates of the cost of lignite, typical financing provisions for similar high-risk projects in underdeveloped countries and the likely need for some additional fossil-fired peaking capacity.

Recommendations

Renovate existing units prior to construction of a new plant: Renovation of Kosovo B plant is a top priority that should be completed before Kosovo A units are closed. Consideration should be given to staging the renovation of Kosovo B over several shorter outage periods rather than attempting the renovation of each unit in a single eight-month outage after the new plant is constructed.

Reduce losses and invest in energy efficiency: Reducing technical and non-technical losses to 5 percent or less should be a top priority and should be completed within the next 5 years. The document assumes non-technical losses can be reduced to 5 % within 5 years simply due to privatization of the system, but that technical losses will only be cut from 16 to 8 percent by 2025. This suggests a lack of commitment to reducing technical losses and an overly

⁴ The analysis also knowingly adopts the incorrect assumption that tariffs have already been increased to fund the project.

optimistic view of how easy it will be to reduce theft of power. Adequate commitment to reducing technical losses could achieve this goal in less than 5 years.

In addition, implementation of energy efficiency programs should have higher priority than construction of new generation capacity.

Invest in alternative peaking generation: It is neither technically nor economically feasible to cycle base load units such as new coal plants to meet peaking needs. Investments in appropriate peaking assets are therefore required. Such assets could include:

1) Hydro: Development of the Zhur HPP is a critical component in addressing Kosovo's peaking needs and should be completed within 5 years. Further detailed analysis of load patterns should be conducted to determine whether Zhur HPP and smaller proposed hydropower plants are sufficient to supply present and anticipated peak power needs.

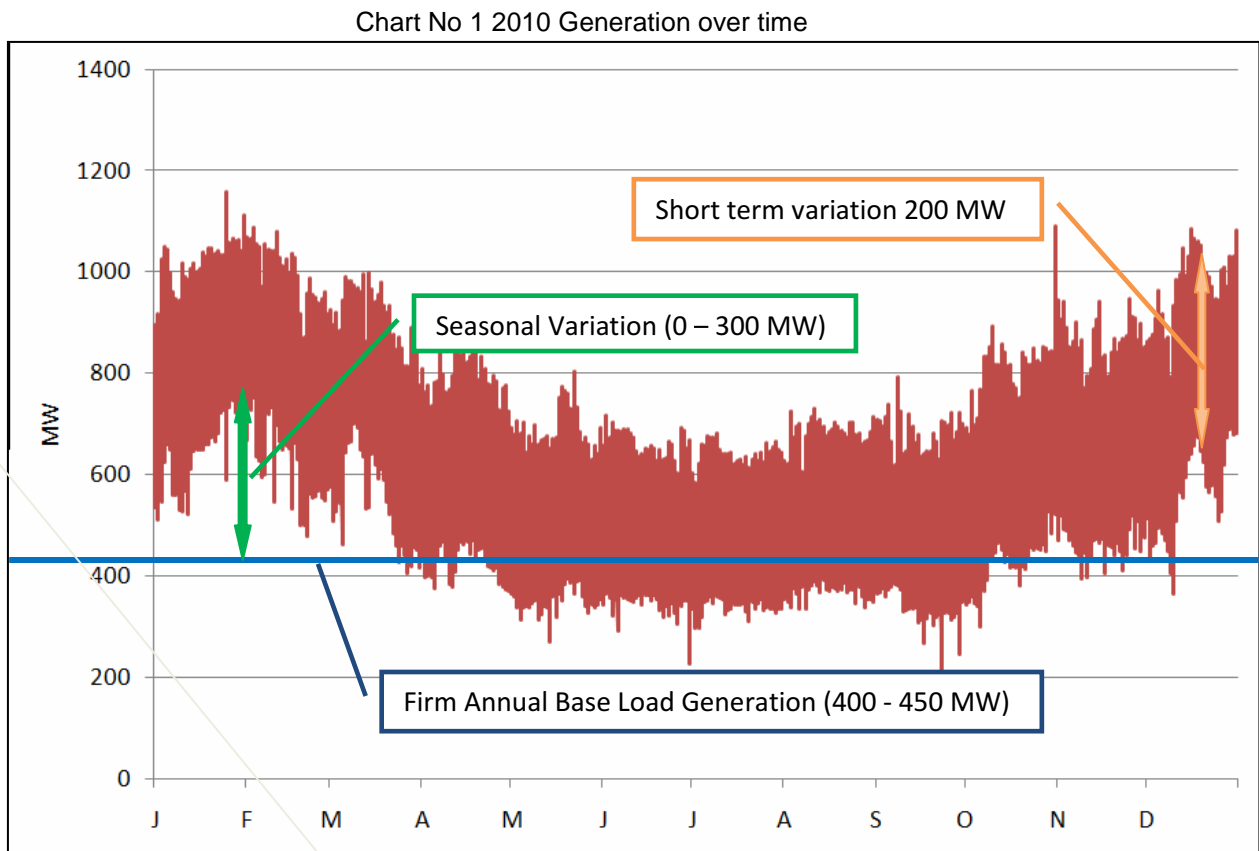
2) Imports: A "time-of-day" analysis of past power purchases should be conducted to determine whether continued purchases of electricity from Albania are more cost effective than development of additional thermal peaking power.

3) Natural Gas: Development of a natural gas transmission line would appear to offer numerous advantages for fuel diversity in areas of space heating, cooking, commercial/industrial development and transportation, in addition to providing a firm backup for renewable sources of electricity.

4) Wind: The analysis of wind power potential cited in the WB Background document presents a more optimistic portrayal of potentially available wind resources than reflected in the WB Background document. Importantly the wind resource is aligned with the time of greatest demand (winter). Hydropower and wind power are complementary sources – the peaking capacity of hydropower resources is thus extended where wind power is also available.

KOSOVO 2010 GENERATION AND CONSUMPTION DATA ANALYSIS

The WB Background Paper includes plots of electric consumption (including technical and nontechnical losses) for 2010. These plots are reproduced and annotated below.



Net consumption by consumers (residential and commercial) is reported in the WB Background Paper at 57 per cent of the amounts generated. Thus, the actual base load consumption (assuming no losses) in 2010 was met by 228 MW of generation. If the “distribution” losses are reduced from 17 percent to 5 percent and “commercial” losses similarly reduced from 24 percent to 5 percent (and assuming a price elasticity of -0.4) then net base load consumption rises by an equivalent of 11.4 MW (since those who had been getting “free” (i.e. stolen) or unmetered electricity would now pay for and consume 60 percent of the earlier amounts). However, net base load consumption rises to 80 per cent of firm base load net generation – and can be met by 320-340 MW of firm annual base load generation. Thus, if distribution and “commercial” losses are reduced to levels commonly experienced throughout the world, a refurbished Kosovo B (618 MW

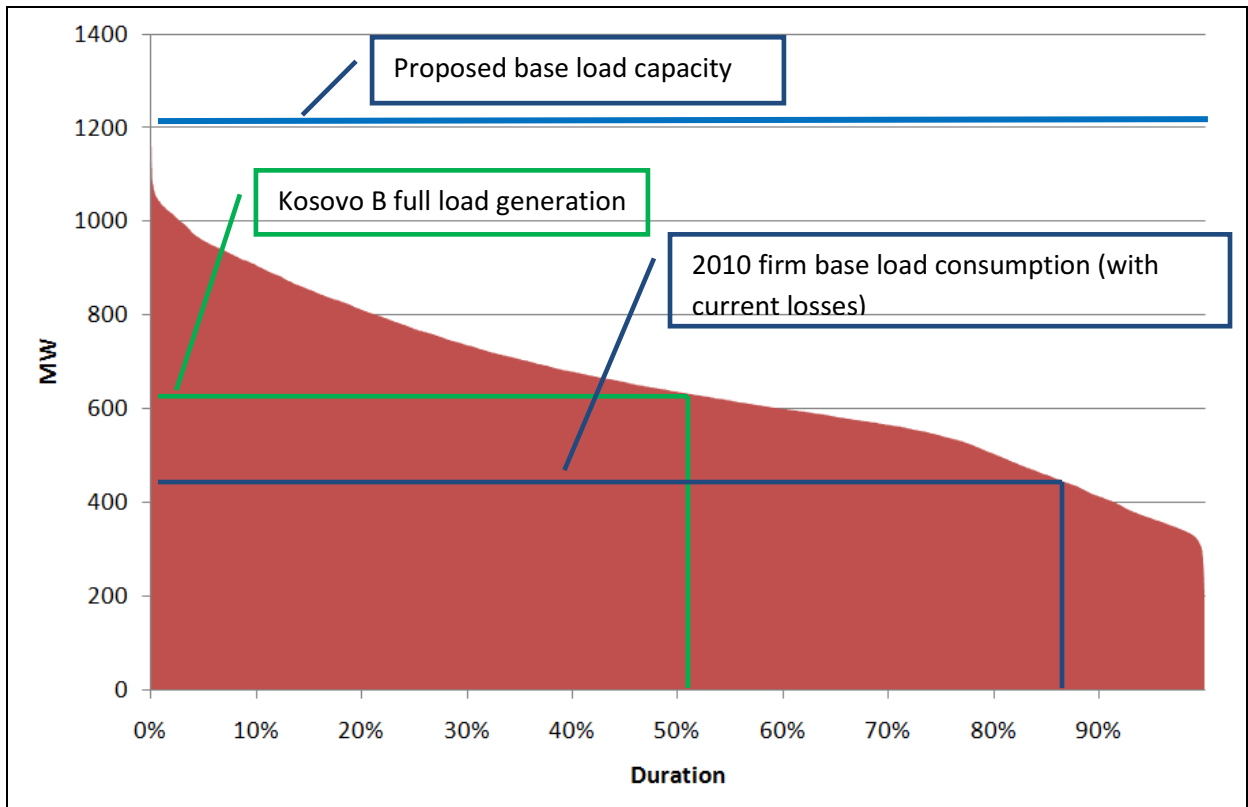
net generation) could of supply almost twice the firm base load consumption as occurred in 2010.

A review of the current daily generation and demand forecast by KEK reveals that current needs for peaking generation are as suggested by the above data. Daily variations in demand are approximately 200MW. The hourly rate of change in demand in the morning and evening exceeds 50MW/hr which is largely met by purchased power (imports). The WB Background document reports that import prices for peaking power are up to €113/MWh and that imports are not available at some times of peak demand, leading to load shedding. This is consistent with pricing patterns in the United States. While the full distribution of hourly import prices has not been evaluated, it appears likely that the Zhur power plant (at the WB estimate of €96/MWh) is more cost effective than purchasing power to serve peak needs. However, the estimated annual capacity of Zhur is only about half of the peaking power needs of Kosovo and so some continued purchases or additional peaking generation capacity will likely be needed.

The WB Background document explicitly does not evaluate options for developing gas-fired peaking capacity. Rather, its discussion of gas fired alternatives is limited to base load generation. In that analysis, it assigns the entire cost of a 20 inch diameter, 268 km long pipeline⁵, from Sofia to Pristina to the base load gas fired plant. While it may make sense in the long term to construct a large diameter natural gas pipeline to serve a variety of commercial, industrial and residential needs (including space heating and transportation) in or near Pristina, there is no reason why the additional electric generating capacity cannot be located closer to existing or proposed natural gas pipelines. The option of simply connecting to pipeline configurations that have already been proposed is dismissed with the comment that one cannot “depend on these proposals in the medium term.” In particular, the possibility of locating fossil fired peaking units near the proposed Zhur hydropower plant, so as to minimize the amount of electric transmission upgrades that would be required and to facilitate load management, should be evaluated.

⁵ This is a far larger diameter pipeline than would be needed to support the needed gas fired capacity.

Chart No. 2 Cumulative Generation



The data from Chart No. 2 shows that, with 2010 levels of technical losses and theft, the firm base load level⁶ was slightly above 400 MW and that the generation needed to meet demand (and cover losses) would have required full load operation of a refurbished Kosovo B plant only 50 percent of the time. If technical and non-technical losses are each reduced to five percent, the values of the vertical axis of the chart are reduced by 20 percent.⁷ The full base load need of the system is reduced to 340 MW and a refurbished Kosovo B plant would only need to operate at full load 20 percent of the time to meet this demand. If the full base load demand is assumed to grow by the high end suggested by the World Bank Background Paper (4.5 percent per annum), the

⁶ The firm base load level is the net generation produced by a unit operating at capacity factors typically assumed for base load units – 85 to 90 percent. The impact of the capacity factor on the cost of generation is quite significant. By way of illustration, if one assumes that repayment of debt and equity will require revenues of €150 million per year for a 600MW plant, at 85 percent capacity factor (typical for base load units), the cost will be €33.57/MWh; at a 15 percent capacity factor (representative of peaking units) the portion of the overall cost that is needed to service debt rises to €228/MWh.

⁷ Since it is reasonable to assume that the reduction in losses is uniform across the load profile the shape of the curve should not vary significantly, but simply be reduced such that, where the vertical axis in Chart 2 reads 400 MW, it would become 320 MW and where the vertical axis of the Chart reads 800 MW, it would become 640 MW. The proposed base load capacity would remain at 1200 MW.

refurbished Kosovo B plant has the capacity to meet this demand through 2023. At the alternate growth rate analyzed in the Background Paper (2.9 percent) the refurbished Kosovo B plant would have the capacity to serve base load demand through 2030. In addition, energy efficiency programs, implemented at only a 10 percent effectiveness level add additional years to the period of time before additional base load capacity would be needed. Deferring construction of new base load capacity until it is actually needed would (1) facilitate development of additional renewable energy options and, (2) allow Kosovo to retire the debt associated with refurbishment of Kosovo B and improving its transmission and distribution systems before incurring additional debt for new capacity.

OBSERVATIONS

- Load shedding is primarily related to peak loads and will not be addressed by additional base load capacity.
- Under the Background Paper’s analysis, construction of the new plant will waste or “strand” a significant portion of the value of the Kosovo B plant since the analysis assumes that Kosovo B plant will operate at less than its design capacity (with load factors from 33 to 50 percent).
- Any evaluation of whether the new plant should be constructed should assume full economic utilization of the refurbished Kosovo B plant.
- If, for purposes of the analysis,⁸ one assumes that Kosovo B is the lead plant (and is therefore dispatched first) then load factors identified by the WB Background paper for the new plant will be between 33 and 55 percent, a range which is not commercially viable or justified compared to a gas plant.
- Much of the analysis of the need for base load capacity in the Background Paper is actually based on projections of peak (not base load) demand. The Background Paper thus incorrectly suggests that the need for “new firm capacity” – which may be peaking or base load capacity – should be met by new firm base load capacity.

⁸ The WB Background Paper assumes that thermal units will be dispatched in order of operating costs and that the new unit will have lower operating costs than Kosovo B. However, since Kosovo B’s capital costs are far less than the new unit, it should be considered the “given” first step. The question then becomes, if Kosovo B is refurbished, what additional generation does Kosovo actually need?

ADDITIONAL CONCERNS⁹

In addition to the specific issues arising out of the WB Background Document addressed above, the Sierra Club, the Kosovar Institute for Development Policy and other interested parties continue to have additional concerns and objections with respect to the TOR and the proposed power project. These additional concerns include the following:

Mine complex: According to the original TOR, the WB Background paper must include consideration of the coal mine complex required for the project. However, there are no costs associated with the mine complex in the WB Background paper. The mine complex itself is a component of the Bank-supported project - even if it is not a direct project component, these costs therefore must be considered as an "associated facility" according to World Bank policies. Specifically, the lignite project cost analysis completely omits substantial costs associated with the coal mine operations, including, inter alia: expansion of mining operations, resettlement, road upgrades/maintenance, mine reclamation, and ash dump costs (associated with mining and Kosovo C). Based on an analysis carried out by Vattenfall of the new mine to serve the new power station with 600MW capacity an investment of \$300 million in constant prices over the period 2007-2038 would be required¹⁰.

Highly Stressed Water Supply: Kosovo B and the new Kosovo C power plant will both get their water supply from the Iber-Lepence water system. This water system is already assessed to be "severely stressed¹¹." The World Bank-utilized water supply study¹² appears to have underestimated requirements for potable water, hydropower, and irrigation. Given the shortcomings of the water supply study, the proposed Lignite Power Project needs to prepare an accurate water supply analysis. Moreover, the Project needs to clearly demonstrate that the determined necessary water system improvements will be completed before commencement of the Project and that a comprehensive, feasible water management plan will be implemented that ensures reliable water supply to the residential, agricultural, industrial, and energy sectors.

Resettlement: Resettlement has been identified as a major impact that the

⁹ The analysis in this section was contributed by Heike Meinhardt of Bank Information Center

¹⁰ Kosovo Lignite Power Initiative Proposed Lignite Power Development Project (LPDP): Economic Analysis

¹¹ Currently, the water exploitation index (WEI) is assessed at 50% for an average year. Severe water stress can occur where the WEI exceeds 40%.

¹² Water supply from the Iber-Lepenc hydro system for the proposed Kosovo C power plant (February 2008), funded by the European Agency for Reconstruction (EAR) and developed by COWI consortium.

World Bank Kosovo Lignite Power Project will have on the local population. Resettlement will be necessary mainly due to the coal mine field development aspect of the project, but also from the new power plant and related facilities and infrastructure. If resettlement is determined to be possible in the Kosovo Lignite Power Project, the project will require significant permanent relocation and rehabilitation of land, which are associated with high resettlement costs. On average, World Bank-supported hydropower projects' completion reports indicate resettlement costs of an average of 11 percent of overall project costs. Accordingly, resettlement costs for the Kosovo Lignite Power project are an estimated \$33 million.

Impacts on Agriculture: The agriculture sector is the highest employer in Kosovo and 60% of the project-affected region's population are farmers. The impacts the new project will have on agriculture have not been adequately assessed, accounted for in the project costs, nor has adequate compensation been guaranteed. In addition to the unresolved water supply issues that will impact irrigation, the project will also involve agricultural land acquisition. The New Mining Field area is mainly inhabited by large families who work in agricultural enterprises or independently as subsistence farmers. The new mine will acquire approximately 13% of the territory of the Obiliq Municipality. The SESA concluded that "There is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods." The Resettlement Policy Framework for Land Acquisition for the New Mining Field does not address this specific problem.

CONCLUSION

- Kosovo's 2010 electric "base load" consumption, including waste and theft, would be met by slightly more than 400 MW of base load generation, far less than the 618 MW net generation that would be provided by the refurbished Kosovo B plant.
- Reducing technical and non-technical losses to 5 percent (each) would reduce the needed base load 2010 capacity by 20 percent to 320-360 MW – again, far less than the 1,200 MW of base load capacity suggested by the World Bank documents.
- Energy efficiency efforts would reduce this need even further and would allow Kosovo B to meet base load generation needs through 2025 – even at a 4.5 per cent per annum increase in GDP.

- Seasonal base load variation would be met through greater utilization of Kosovo B in the near term; planning efforts should anticipate that annual base load will grow and that, at some point seasonal capacity that is economically efficient at 20 – 40 percent load factors will need to be added.

The proposed construction of 600MW of new base load generating capacity would lead to base load generating capacity that is three times higher than existing demand in 2010 and four times higher when corrected for avoidable losses. It would require Kosovo consumers (or the government) to service over a billion euro in debt at a time when they are also servicing debt for necessary improvements in the Sibovc mine, Kosovo's wasteful transmission and distribution systems, and refurbishment of Kosovo B. The Background Paper presents an "economic analysis" but is careful to note that this is not the same as a "financial analysis." In other words, the Background Paper does not examine the impact of the proposed excess base load capacity on tariffs. It assumes that the government will continue to subsidize rates, even after the system is privatized and that current levels of theft of electricity will be wholly eliminated. The Background Paper does not present an estimate of the increase in tariffs that would be needed, or the impact of those increases on GDP or demand for electricity. However, with substantially less than full load operation of 1,200 MW of base load generation, it is feasible that tariffs up to four times higher than current rates would be needed to service the total new investments.

The Background Paper suggests committing to the construction the new plant before refurbishing Kosovo B and aggressively reducing losses or developing needed peaking and load following capacity. This sequencing would be wasteful and imprudent.¹³ Refurbishment of Kosovo B is far more cost effective than construction of a new plant and provides a number of years of base load capacity. If, after the "low hanging fruit" of extremely cost effective measures are captured, it appears that additional base load generation will be required, there will be ample time to plan for and construct any needed capacity. However, once the proposed new plant is built, there will be substantial bulk excess capacity in the system. This will create perverse incentives to increase the use of electricity to justify the initial investment. In this way, committing to construction of the new unit at this time will undermine efforts to reduce transmission losses and theft and end user energy efficiency. It will also undercut development of the most cost-effective mix of generating resources in Kosovo.

¹³ A recent experience in the United States demonstrates the economic consequences of building capacity before demand exists. See, <http://www.startribune.com/business/134647533.html>

**ISSUES OF NON-COMPLIANCE WITH THE WORLD BANK'S
*CRITERIA FOR SCREENING COAL PROJECTS UNDER THE
STRATEGIC FRAMEWORK FOR DEVELOPMENT AND CLIMATE
CHANGE***

Steve Herz
March 06, 2011

Prepared for:



**SIERRA
CLUB**
FOUNDED 1892

Introduction

As the World Bank's Independent Evaluations Group has concluded, the Bank's resources "are best spent in helping clients find domestically preferable alternatives to coal power, such as through increased energy efficiency. Coal support should be a last resort when lower cost and concessionally-financed alternatives have been exhausted and when there is a compelling case WBG support would reduce poverty or emissions."¹

Towards this end, the *Strategic Framework for Development and Climate Change (SFDC)* sets out specific conditions that must be met before the World Bank can provide support for new coal power projects.² Under the *SFDC*, the World Bank must determine that:

- (i) there is a demonstrated developmental impact of the project including improving overall energy security, reducing power shortage or access for the poor;
- (ii) assistance is being provided to identify and prepare low-carbon projects;
- (iii) optimization of energy sources by considering the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation;
- (iv) after full consideration of viable alternatives to the least-cost (including environmental externalities) options and when the additional financing from donors for their incremental cost is not available;
- (v) coal projects will be designed to use the best appropriate available technology to allow for high efficiency and therefore lower GHG emissions intensity; and
- (vi) an approach to incorporate environmental externalities in project analysis will be developed.

To promote consistency and rigor in the application of these requirements, the Bank has issued *Operational Guidance for World Bank Group Staff: Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change (Operational Guidance)*.³ The *Operational Guidance* sets out specific "monitoring indicators" that staff must use to determine whether the *SFDC* criteria have been met. It also provides that for each proposed project, the Bank will engage an "External Panel of Experts" to independently evaluate the quality of compliance with the screening criteria.⁴

In the case of the proposed Kosovo Power Project, the Expert Panel delivered its report to the Bank in January, 2012.⁵ With limited "reservations" and "modifications" the Expert Panel found that the project complies with the six *SFDC* criteria. However, the Expert Panel failed to

¹ IEG, 2010. *Climate Change and the World Bank Group: Phase II The Challenge of Low-Carbon Development*, at ix.

² World Bank, 2008. *Development and Climate Change: A Strategic Framework for the World Bank Group*.

³ World Bank, 2010. *Operational Guidance for World Bank Group Staff: Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change*.

⁴ *Operational Guidance*, at 4.

⁵ Beér, Mielczarski and Taylor, (2010). *Kosovo: Kosovo Power Project Report of the SFDC External Expert Panel to the World Bank*.

adequately address several important areas of non-compliance with the *SFDCC* criteria. Specifically, the Kosovo Power Project does not meet the *SFDCC* criteria with respect to:

1. Criterion 1: Development impact;
2. Criterion 2: Assistance for low-carbon alternatives;
3. Criterion 3: Assessment of efficiency options; and
4. Criteria 4 and 6: Assessment of externalized costs and potential support for incremental costs.

In light of these shortcomings, the Kosovo Power Project cannot be said to be in compliance with the *SFDCC* criteria.

1. The Project does not meet the requirements of Criterion 1, because the Bank has not adequately demonstrated a developmental impact in terms of increasing energy access for the poor.

The *Operational Guidance* requires that a proposed coal-fired power plant demonstrate development impact by (a) increased access to electricity; and/or (b) improved system reliability.

The *Expert Panel Report* found that the project complied with the energy access criterion because the new plant would make up for the loss of capacity from the closure of the Kosovo A plant, and would help reduce the country's supply/demand gap.

Energy access, however, is a question of more than just supply/demand balance. It also encompasses issues of price, income, and affordability for vulnerable groups. Accordingly, the *Expert Panel Report* should have also addressed whether the proposed project will be able to deliver adequate energy services at affordable rates.

In fact, significant tariff increases will be needed to finance the simultaneous development of a new mine, renovation of Kosovo B plant and the construction of the proposed new 600 MW plant. Indeed, because this investment will create more baseload capacity than Kosovo needs, at least some of these units will operate at substantially less than full load. As a result, it is feasible that tariffs up to four times higher than current rates would be needed to service the total new investments.⁶ Yet, the *Background Paper* significantly underestimates the tariff increases that will be required in the near term, and the *Background Paper* and *Expert Panel Report* fail to examine the impacts of these increases on the Kosovo economy and quality of life of ratepayers. In addition, the project will privatize the existing power plant "Kosova B", thus creating a *de facto* generation monopoly. This will in turn hit hard the consumers with increases in electricity tariffs. This plant is profitable on its own and does not require to be privatized in order to be revitalized.

⁶ Buckheit, 2012. *Reevaluating Kosovo's Least Cost Electricity Option Preliminary Evaluation of the World Bank's December, 2011 "Background Paper, Development and Evaluation of Power Supply Options for Kosovo"*, available at http://action.sierraclub.org/site/DocServer/Reevaluating_Kosovo_s_Least_Cost_Options_for_Electricity.pdf?docID=8861

2. The Project does not meet the requirements of Criterion 2, because insufficient assistance is being provided to identify and prepare specific low-carbon projects for development.

The *Operational Guidance* sets out specific actions the World Bank must take to assist in identifying and preparing low-carbon projects. These requirements vary depending on the current state of the host country's low-carbon planning and investment. The *Operational Guidance* distinguishes between three scenarios.

- (1) Where studies, policies and/or national strategies for promoting renewable energy, energy efficiency and other low-carbon interventions are not available, the Bank must provide technical assistance to help prepare them;
- (2) Where such studies have already been prepared, the Bank must provide technical assistance to help develop and design a pipeline of bankable projects and other lower carbon interventions. If other donors are also supporting the preparation of bankable projects in the host country, the Bank's work must be additional to these efforts; and
- (3) Where studies and projects design and/or national strategies for promoting renewable energy, energy efficiency and other low-carbon interventions have already been prepared, the Bank must either (a) support the financing of bankable projects and/or implementation of policy recommendations as part of the project; and/or (b) ensure that access to finance for these projects is available from other sources. If the defined pipeline of projects or policy implementation action plan allows for the engagement of several donors, the Bank's financing must be incremental to the efforts of others.⁷

The Expert Panel found that the Project complied with this criterion, based on the fact that (a) several studies of renewable energy alternatives have been conducted; (b) grant assistance is being provided for studies on wind potential, carbon capture and storage, and solar power and water heating; (c) an investment credit is proposed to be provided by the Bank for further work on energy efficiency improvements and renewables; and (d) the Government of Kosovo has instituted a feed-in tariff for small scale hydro and wind.⁸

However, the fact that a number of studies have been conducted or are planned, and a limited set of policies have been adopted, is not sufficient to satisfy the requirements of the *Operational Guidance*. Rather, the *Operational Guidance* makes clear that the Bank must take affirmative steps to develop and fund bankable projects and policy initiatives, above and beyond what others are supporting. The Expert Panel did not discuss any commitment on the part of the Bank to provide assistance to develop and support any specific projects or policy initiatives.

For example, although it referred to the Bank's support for the update of the feasibility study of Zhur, it did not address whether the Bank will actually fund the project. Moreover, private investors in Kosovo have already developed a significant pipeline of renewable energy projects.

⁷ *Operational Guidance*, at 6-7.

⁸ *Expert Panel Report*, at 10.

Although investors have sought licenses for over 200 MW of hydro and wind from the Kosovan Energy Regulatory Office, these requests have not been processed in a timely fashion.⁹ Under the third scenario of the *Operational Guidance*, the Bank should evaluate these projects, and ensure that the bankable projects receive financing, either from the Bank or other sources. , before moving forward with the current project.

Moreover, the Expert Panel assumes that the criterion does not require it to review the quality or comprehensiveness of the studies that have been undertaken. Rather, it assumes that the fact that they exist is sufficient. Therefore, the Expert Panel simply lists the studies that have been conducted, without offering any independent assessment of their rigor. This approach would appear to violate the spirit and intent of this criterion. It seems evident that the criterion is intended to ensure project decision-making is made on the basis of a rigorous and comprehensive assessment of renewable energy and energy efficiency alternatives. Studies that are done poorly or are not considered in decision-making should not suffice. Accordingly, the Expert Panels treatment of these studies is inadequate.

3. The Project does not meet the requirements of Criterion 3, because the Bank has not fully evaluated the possibility of meeting the country’s needs through energy efficiency (both supply and demand) and conservation.

The *Operational Guidance* specifies actions that the Bank must take in two different scenarios:

- (1) Where energy efficiency studies have already been prepared, the Bank must (a) quantify the reduced energy consumption that would allow the country to avoid/delay the planned increase in power generating capacity from the national or sub-national baseline value; and (b) define the policies and regulations necessary for the above interventions to be made effective, including for pricing strategies (increased cost recovery from tariffs and enhanced collections, targeting of energy subsidies or other methods, including minimum efficiency standards).¹⁰
- (2) Where energy efficiency studies have not been conducted, the Bank must support their preparation and implementation, and assess the potential savings generated from both supply-side reduction of losses in generation and/or transmission and distribution and demand-side management programs to reduce electricity consumption that would allow to avoid/delay the proposed power generating capacity additions.¹¹

The Expert Panel found that the project mostly complied with this criterion. It noted the “considerable efforts” of the Government of Kosovo to improve the efficiency of both supply and demand. It found that on the supply side, “the new project would result in considerable improvements in the efficiency of electricity generation and consume significantly less fuel per unit of electricity produced than the present plants...” On the demand side, the Expert Panel

⁹ These needless delays have raised suspicions that they are intended to keep the “need” for a new coal plant alive in the public debate.

¹⁰ *Operational Guidance*, at 8.

¹¹ *Operational Guidance*, at 8.

found “there are a number of projects and actions that have been implemented in Kosovo, ranging from awareness raising to improving the energy efficiency of many public buildings.”

However, the Expert Panel also expressed reservations, based on the need for increased effort to reduce energy demand and the technical and commercial losses related to electricity supply. Overall, it found that “while energy efficiency measures are unlikely to alter the need for new power generating capacity, they should be important elements of Kosovo's energy strategy.”

The Expert Panel’s treatment of this issue is wholly inadequate. The *Operational Guidance* places the burden of proof on the Bank to quantify the efficiency opportunities that are available, and to demonstrate that they are not sufficient to avoid or delay the proposed generation expansion, before going forward with the project.¹² Here, there is no evidence in the Report that the Bank has fully quantified the potential energy savings from supply- and demand-side energy efficiency initiatives.

Rather than point out this shortcoming, however, the Expert Panel treats this issue in conclusory fashion, offering its (apparently unsubstantiated) view that “energy efficiency measures are unlikely to alter the need for new power generating capacity.”¹³ In fact, Kosovo’s energy system is highly inefficient. On the supply-side, for example, over 37 percent of overall generated and imported electricity is lost. Over 20 percent of this loss is a commercial loss (mainly theft). The overall losses of electricity equal or exceed the overall production of Kosova A. Kosovan energy company (KEK) has continuously failed to tackle this problem due to the lack of institutional support, mainly that of courts and police. With support, this problem is readily solvable, and would have enormous impact.

Moreover, the Expert Panel inexplicably treats the new plant itself as a supply-side efficiency initiative. This contradicts the clear objective of this criterion, to assess efficiency alternatives to the proposed project that could enable Kosovo to “to avoid/delay the planned increase in power generating capacity.”¹⁴

Due to these shortcomings, the Expert Panel should not have found even partial compliance with this requirement.

¹² *Operational Guidance*, at 8.

¹³ *Expert Panel Report*, at 10.

¹⁴ *Operational Guidance*, at 8. Treating the project itself as an efficiency improvement over Kosova A is also inconsistent with the base case analysis used by the Expert Panel in Criterion 1. In the Criteria 1 analysis, the Expert Panel assumes that Kosova A will be retired, and that the project will make up for its lost supply and thus expand energy access to the poor. Here, the Expert Panel assumes that Kosova A will continue to be operated, and therefore that the proposed project represents an efficiency improvement over the base case.

4. The Project does not meet the requirements of Criteria 4 and 6, because the Bank has not fully accounted for the Project's environmental externalities, and because the Bank has failed to consider how any incremental costs of low-carbon alternatives could be covered by additional financing from other sources.

Criterion 4 of the *Operational Guidance* requires the Bank to conduct a “least-cost analysis” that (a) quantifies environmental externalities; (b) demonstrates that the project is least cost after full consideration of alternatives and after factoring in environmental externalities costs; (c) assesses incremental costs of alternative options (with and without environmental externalities); and (d) evaluates switching prices between the proposed project and alternative low-carbon options [expressed in US\$/ton CO₂]. In addition, Criterion 6 requires that a methodology be developed for assessment of net local (SO_x, NO_x and PM) and GHG emissions at the project level, and that such methodologies inform the analysis of alternatives and least cost options under Criterion 4.

Moreover, where low-carbon alternatives carry an incremental cost over the proposed project, Criterion 4 requires the Bank to (a) identify and evaluate external funding sources to meet the incremental financial cost gap between the proposed project and a lower carbon alternative, and (b) explain the steps it has taken to access such sources, including carbon market, GEF, CTFs, and bilateral donors.

The Bank has met neither the requirement to fully assess and compare the internal and externalized costs of the proposed project and low-carbon alternatives, nor the requirement to identify potential sources of incremental financing for low-carbon alternatives, where the proposed project is determined to be the least-cost alternative.

First, the Bank has not fully explored all potential alternatives. As noted above, the Bank has not fully explored the opportunities to improve efficiency, and the Expert Panel conceded that neither wind nor natural gas alternatives have been fully analyzed.¹⁵

Second, there are compelling reasons to doubt that the proposed project is in fact the least-cost alternative. The Expert Panel cites the World Bank *Background Paper* of December 2011 as the basis for this conclusion, but analyses by the Renewable and Appropriate Energy Laboratory at the University of California Berkeley, and the Kosovar Institute for Development Policy and Sierra Club contradict that conclusion.¹⁶ These studies found that the proposed project will be extremely costly and will necessitate a sharp increase in tariffs, and that a mixture of efficiency and renewable alternatives can provide a lower cost alternative. The Bank should re-evaluate the assumptions and methodology of the December 2011 in light of these studies before concluding that the proposed project is indeed the low cost alternative.

¹⁵ *Expert Panel Report*, at 11.

¹⁶ Daniel M. Kammen, M. Mozafari and D. Prull, 2012. *Sustainable Energy Options for Kosovo: An analysis of resource availability and cost*. Available at, <http://rael.berkeley.edu/energyforkosovo>; Buckheit, 2012. Reevaluating Kosovo's Least Cost Electricity Option Preliminary Evaluation of the World Bank's December, 2011 "Background Paper, Development and Evaluation of Power Supply Options for Kosovo", available at http://action.sierraclub.org/site/DocServer/Reevaluating_Kosovo_s_Least_Cost_Options_for_Electricity.pdf?docID=8861

Third, the Bank has failed to adequately internalize all relevant environmental costs. Thus, the *Expert Panel Report* fails explain how the Bank has assessed, quantified and internalized the impacts of the rehabilitated Kosovo B and the new Kosovo C power plant on competing uses and environmental values in the “severely stressed”¹⁷ Iber-Lepence water system.¹⁸

The Bank has also failed to internalize the costs of the mine complex. The *Operational Guidance* is clear that the impacts of upstream activities such as coal mining and processing must be internalized if they are “developed for the purposes of supplying fuel feed stock for specified coal-based power generation facilities....”¹⁹ Although the proposed new mine complex clearly meets this standard, neither the *Expert Panel Report* nor the *Background Paper* quantifies or internalizes the substantial costs associated with the mine’s development and operations, including those caused by expansion of mining operations, resettlement, impacts on local agriculture, road upgrades and maintenance, mine reclamation, and ash dump costs (associated with mining and Kosovo C).

Fourth, even assuming that the proposed project is the least-cost option including externalities, the Bank must still “identify and evaluate external funding sources to meet the incremental financial cost gap between the proposed project and a lower carbon alternative.” It is entirely insufficient to simply conclude that there is a cost gap; the Bank must also determine that the cost gap cannot be filled by other sources. However, the *Expert Panel Report* provides no discussion of whether the Bank has undertaken this analysis, or reached out to other potential funders. The requirements of this criterion have not been met until alternatives for incremental cost financing such as the CDM, the GEF, the CTF, and other multilateral and bilateral donors have been explored and exhausted.

Conclusion

In light of the shortcomings identified above, it is evident that the Bank has not satisfied the letter or the spirit of the *SFDCC* criteria. In short, it has not met its burden of showing that no lower cost or concessionally-financed alternatives are available, or that Bank support for this project is the best way to expand energy access and meet the pressing energy needs of Kosovo. That being the case, it would not be appropriate for the Bank to provide support for this project.

¹⁷ Currently, the water exploitation index (WEI) is assessed at 50% for an average year. Severe water stress can occur where the WEI exceeds 40%.

¹⁸ The World Bank-utilized water supply study appears to have underestimated competing demands for requirements for potable water, hydropower, and irrigation. COWI, 2008. *Water supply from the Iber-Lepenc hydro system for the proposed Kosovo C power plant.*

¹⁹ *Operational Guidance*, at 3.

ANALIZA E SHPENZIMEVE TË VITIT 2005 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2005						SHKURT -2005						MARS -2005						Janar-Mars:2005										
	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	20	8		1		2	31	28	5			3	36	24	7		4	DFUR	TJERA	1	36	72	20		5	DFUR	TJERA	6	103
Nr. lënd. që krij. shpenz.	17	6		0		0	23	24	4			2	30	19	4		3			1	27	60	14		3			3	80
Orët e humbura	1,384	552		0		0	1,936	2,681	448			144	3,273	1,848	288		208			104	2,448	5,913	1,288		208			248	7,657
Eurot (€)	2,299	884		0		0	3,183.31	3,865	668			213	4,746	2,816	484		293			159	3,752	8,980	2,036		293			372	11,681.34
Shfryt. e FL të mëhersh	40	12		3		6	61	17	10			5	33	36	12		2			3	53	93	34		6			14	147
Orët e humbura	5,152	1,432		344		576	7,504	2,552	1,824		160	656	5,192	5,880	1,808		248			432	8,368	13,584	5,064		752			1,664	21,064
Eurot (€)	8,459	2,321		496		795	12,070.08	3,908	2,938		40	823	7,710	8,916	2,673		492			604	12,685	21,283	7,932		1,028			2,222	32,464.64

	Prill -2005						MAJ -2005						QERSHOR -2005						Prill-Qershor:2005										
	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	17	4		4		4	29	17	8		2	3	30	17	6		2			3	28	51	18		8			10	87
Nr. lënd. që krij. shpenz.	12	3		2		3	20	12	6			3	21	15	5					2	22	39	14		2			8	63
Orët e humbura	1,000	328		64		400	1,792	1,200	552			216	1,968	1,376	296					208	1,880	3,578	1,176		64			824	5,640
Eurot (€)	1,573	467		102		672	2,814.40	1,904	857			300	3,061	2,148	469					286	2,903	5,625	1,793		102			1,258	8,778.15
Shfryt. e FL të mëhersh	41	7		3		3	54	30	7			3	44	35	10					2	4	51	106	24		9		10	149
Orët e humbura	5,784	1,096		504		504	7,888	4,376	864		336	416	5,992	5,208	1,176		232			536	7,152	15,368	3,136		1,072			1,456	21,032
Eurot (€)	8,986	1,732		720		761	12,199.45	6,557	1,347		587	740	9,232	8,147	1,761		345			902	11,155	23,691	4,841		1,653			2,403	32,586.67

	KORRIK -2005						GUSHT -2005						SHTATOR -2005						Korrik-Shtator:2005										
	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	14	6		1		1	22	14	6		3	3	26	4	3		3				10	32	15		7			4	58
Nr. lënd. që krij. shpenz.	12	6		2		1	21	3	6		2	3	14	7	1		3				11	22	13		7			4	46
Orët e humbura	984	488		272		64	1,808	176	560		256	424	1,416	616	40		464				1,120	1,776	1,008		992			488	4,344
Eurot (€)	1,439	701		564		64	2,767.37	281	878		391	563	2,113	1,001	63		782				1,847	2,720	1,643		1,737			627	6,726.93
Shfryt. e FL të mëhersh	36	11		1		2	50	38	13		1	2	54	32	15		4			1	52	106	39		6			5	156
Orët e humbura	5,040	1,664		168		296	7,168	6,328	2,056		184	208	8,776	4,784	2,000		536			176	7,496	16,152	5,720		888			680	23,440.00
Eurot (€)	7,889	2,561		247		399	11,095.51	9,849	3,018		271	271	13,410	7,491	3,047		809			237	11,584	25,229	8,626		1,327			907	36,089.23

	TETOR -2005						NËNTOR -2005						DHJETOR -2005						Tetor-Dhjetor:2005										
	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	DPQ	DGJE		DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	10	6		5		1	22	15	9		2	3	29	17	4		3			2	26	42	19		10			6	77
Nr. lënd. që krij. shpenz.	4	5		2	1	12	11	7				3	21	11	3		2			2	18	26	15		4			6	51
Orët e humbura	504	416		176		80	1,176	720	776			232	1,728	888	168		176			136	1,368	2,112	1,360		352			448	4,272
Eurot (€)	719	682		259		99	1,759.57	1,287	1,141			327	2,755	1,321	251		269			189	2,031	3,328	2,075		528			615	6,545.56
Shfryt. e FL të mëhersh	32	12		4		1	49	31	12		4	1	48	30	16		5			3	54	93	40		13			5	151
Orët e humbura	4,680	1,656		640		160	7,136	4,712	1,808		640	160	7,320	4,504	2,192		792			392	7,880	13,896	5,656		2,072			712	22,336
Eurot (€)	7,454	2,560		1,072		215	11,301	7,363	2,920		1,213	216	11,712	7,162	3,522		1,320			576	12,580	21,980	9,002		3,605			1,007	35,594.32

Shpenz për shkak të aksid. për 2005	Puntor	(€)Euro		orë (h)	% (€)	€/punt	(h)/1 puntor
KEK	7,498	170,466.64	109,785	100	22.73	14.64	
DPQ	3427	112,833.80	72,377	66.19	32.92	21.12	
DGJE	1554	37,948.22	24,488	22.26	24.42	15.76	
DRr	1609	10,273.58	6,400	6.03	6.39	3.98	
Dfur	500	9,411.24	6,520	5.52	18.82	13.04	
Të tjera	408	360.00	360	0.21	0.88	0.88	

	Totali: Janar-Dhjetor 2005						
	DPQ	DGJE		DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	197	72		30		26	325
Nr. lënd. që krij. shpenz.	147	56		16		21	240
Orët e humbura	13,377	4,912		1,616		2,008	21,913
Eurot (€)	20,652	7,547		2,660		2,873	33,731.98
Shfryt. e FL të mëhersh	398	137		34		34	603
Orët e humbura	59,000	19,576		4,784		4,512	87,872
Eurot (€)	92,182.00	30,401.0		7,614.00		6,539.00	136,734.86

ANALIZA E SHPENZIMEVE TË VITIT 2006 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2006						SHKURT -2006						MARS -2006						Janar-Mars:2006						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	16	6				27	21	5			27	10	4				18	47	15			4	2	4	72
Nr. lënd. që krij. shpenz.	14	2				18	17	5			22	7	3				12	38	10			1		3	52
Orët e humbura	704	152				968	1,832	584			2,416	704	176			96	976	3,240	912			56		152	4,360
Eurot (€)	1,107	263				1,659	2,854	904			3,756	1,035	305			152	1,492	4,996	1,472			151		290	6,909.39
Shfryt. e FL të mëhersh	16	10				34	68	9			83	65	8			5	82	149	27			9	9	5	199
Orët e humbura	1,886	1,056				3,958	5,608	1,216			7,784	2,256	1,248			496	552	264				1,248	1,459	584	21,558
Eurot (€)	3,083	1,668				6,311	8,780	1,926			12,315	11,369	1,908			743	854	456				1,883	2,253	1,105	33,975.07

	Prill -2006						MAJ -2006						QERSHOR -2006						Prill-Qershor:2006						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	12	5				18	20	7			30	11	8			2	21	43	20			2	4		69
Nr. lënd. që krij. shpenz.	10	5				15	17	7			27	8	5			2	15	35	17			2			57
Orët e humbura	704	360				1,064	1,486	600			2,500	768	632			216	1,616	2,958	1,592			216	414		5,180
Eurot (€)	1,110	611				1,720.92	2,208	1,238			4,105	1,336	1,074			373	2,783	4,653	2,923			373	660		8,609.31
Shfryt. e FL të mëhersh	36	8				47	58	10			69	62	12			2	79	156	30			2	5	2	195
Orët e humbura	4,944	1,144				6,544	5,296	1,400			7,720	6,384	1,760			208	8,856	16,624	4,304			208	728	304	22,168
Eurot (€)	7,454	1,553				9,703.34	8,231	1,756			10,101	9,787	2,863			354	13,803	25,472	6,172			354	1,127	482	33,607.09

	KORRIK -2006						GUSHT -2006						SHTATOR -2006						Korrik-Shtator:2006						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	14	3				18	18	5			26	11	4			2	18	43	12			4	3	0	62
Nr. lënd. që krij. shpenz.	10	3				13	17	5			25	9	2			2	13	36	10			4	1	0	51
Orët e humbura	894	174				1,070	1,718	672			2,694	712	184			168	1,064	3,326	1,030			288	184	0	4,828
Eurot (€)	1,408	288				1,696.00	2,605	1,027			4,099	1,027	336			261	1,624	5,040	1,652			456	271	0	7,418.34
Shfryt. e FL të mëhersh	39	13				58	49	11			61	44	14			2	61	132	38			5	3	2	180
Orët e humbura	6,704	2,066				9,514	7,819	1,952			9,955	5,784	2,064			288	8,296	20,307	6,082			792	240	344	27,765
Eurot (€)	10,548	3,418				15,155.13	12,393	3,167			15,819	8,932	3,202			468	12,827	31,872	9,787			1,276	381	484	43,800.68

	TETOR -2006						NËNTOR -2006						DHJETOR -2006						Tetor-Dhjetor:2006						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	13	3				20	9	2			14	9	3			1	13	31	8			3	4	1	47
Nr. lënd. që krij. shpenz.	11	2				16	7	2			10	7	3				10	25	7			2	2	0	36
Orët e humbura	1,072	120				1,528	640	144			840	568	288				856	2,80	552			256	136	0	3,224
Eurot (€)	1,618	180				2,322.29	996	218			1,297	1,143	42				1,184	3,757	440			397	209	0	4,803.29
Shfryt. e FL të mëhersh	31	14				50	32	11			48	34	9			5	50	97	34			11	3	3	148
Orët e humbura	4,808	2,176				7,824	5,160	1,744			7,744	4,093	1,184			760	152	152				1,768	488	488	21,909
Eurot (€)	7,444	3,389				12,126.01	7,924	2,756			11,990	6,754	1,898			1,197	10,277	22,122	8,043			2,813	728	687	34,393.05

Shpenz për shkak të aksid. për 2006	Puntor	(€)Euro	orë (h)	% (€)	€/punt	(h)/1puntor
KEK	7404	173,516.22	110,992	100	23	16
DPQ	3531	121,141.99	77,546	70	34	22
DGJE	1636	35,992.26	23,096	21	22	14
DRR	1006	7,703.07	4,832	4	8	5
DFUR	806	5,629.15	3,646	3	7	5
TJERA	425	304975	1872	1	14	8

	Totali: Janar-Dhjetor 2006					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	164	55				250
Nr. lënd. që krij. shpenz.	134	44				196
Orët e humbura	11,804	4,086				17,592
Eurot (€)	18,445	6,488				27,740.33
Shfryt. e FL të mëhersh	534	129				722
Orët e humbura	65,742	19,010				93,400
Eurot (€)	102,697	29,505				145,775.89

ANALIZA E SHPENZIMEVE TË VITIT 2007 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2007							SHKURT -2007							MARS -2007							Janar-Mars:2007						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	14	5				22	6	5				13	10	4				18	30	14				4	5	0	53	
Nr. lënd. që krij. shpenz.	12	4		1	1	18	5	5		0	0	10	10	4		0	2	0	16	27	13		1	3	0	44		
Orët e humbura	896	280		144	64	1384	544	352		160	0	1056	846	320		0	80	0	1246	2286	952		304	182	0	3686		
Eurot (€)	1,422.72	403.17		220.1	101.5	2147.49	856	622		245	0	1723	1,428	637		0	127	0	2192	3706.72	1662.17		465.1	228.5	0	6062.49		
Shfryt. e FL të mëhersh	29	6		3	1	39	31	6		3	3	43	30	10		3	1	0	44	90	22		9	5	0	126		
Orët e humbura	4224	816		320	168	5528	4,824	872		480	480	6656	4,866	1,760		528	72	0	7,226	13914	3448		1328	720	0	19410		
Eurot (€)	6633.96	1209.23		498.3	266.5	8607.99	7,669	1,225		761	791	10446	7,639	2,732		838	114	0	11323	21941.96	5166.23		2097.3	1171.5	0	30376.99		

	Prill -2007							MAJ -2007							QERSHOR -2007							Prill-Qershor:2007						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	10	4		0	2	16	11	5		2		-	18	6	9		3		-	18	27	18		5	2	-	52	
Nr. lënd. që krij. shpenz.	8	3		0	2	13	8	5		1		-	14	5	7		1		-	13	21	15		4		-	40	
Orët e humbura	784	320		0	144	1248	960	448		16		-	1,424	616	536		96		-	1,248	2,360	1,304		256	144	-	4,064	
Eurot (€)	1,405	487		0	216	2109	1,554	765		24		-	2,343	1,010	873		146		-	2,029	3,969	2,126		386	216	-	6,696.98	
Shfryt. e FL të mëhersh	26	13		2	0	41	31	12		3		-	46	29	9		4		-	42	86	34		9		-	129	
Orët e humbura	4,096	1,928		320	0	6344	4,470	1,656		528		-	6,654	4,268	1,024		640		-	5,932	12,834	4,608		1,488		-	18,930	
Eurot (€)	6,462	3,071		489	0	10023	8,101	2,413		827		-	11,341	7,889	1,603		988		-	10,480	22,452	7,088		2,304		-	31,844.39	

	KORRIK -2007							GUSHT -2007							SHTATOR -2007							Korrik-Shtator:2007						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	7	3		1	0	12	14	1		1	0	0	16	7	4		3	0	0	14	28	8		5	0	1	42	
Nr. lënd. që krij. shpenz.	6	3		1	0	11	9	1		1	0	0	11	4	3		2	0	0	9	19	7		4	0	1	31	
Orët e humbura	560	184		56	0	976.00	832	40		80	0	0	952	448	352		184	0	0	984	1840	576		320	0	176	2912	
Eurot (€)	887.8	278		95	0	1437.18	1,273	59		118	0	0	1450	740.97	571.96		307.49	0	0	1620.42	2901.77	909.08		521	0	176	4507.6	
Shfryt. e FL të mëhersh	31	10		6	0	47	31	8		8	0	1	48	32	5		5	1	1	44	94	23		19	1	2	139	
Orët e humbura	4,838	1,558		1,056	0	7452.00	5,006	1,032		1,008	0	184	7230	4,590	696		784	80	40	6190	14434	3286		2848	80	224	20872	
Eurot (€)	9,027.35	2,414		1,618	0	13059.04	7,302	1,625		1,636	0	184	10747	8,212.80	1,163.76		1,264.73	136.09	40	10817.38	24542.15	5202.45		4519	136	224	34623.42	

	TETOR -2007							NËNTOR -2007							DHJETOR -2007							Tetor-Dhjetor:2007						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	8	3		1	0	12	4	4		3	0	0	11	7	4		3	0	0	14	19	11		7	0	0	37	
Nr. lënd. që krij. shpenz.	7	1		1	0	9	2	1		1	0	0	4	2	3		3	0	0	8	11	5		5	0	0	21	
Orët e humbura	536	16		144	0	696	144	120		136	0	0	400	184	144		280	0	0	608	864	280		560	0	0	1704	
Eurot (€)	827	24		245	0	1096.00	313.2	190.4		207.9	0	0	711.5	288	218		472	0	0	978	1428.2	432.4		924.9	0	0	2785.50	
Shfryt. e FL të mëhersh	27	7		4	0	38	29	8		5	0	0	42	29	8		5	0	0	42	85	23		14	0	0	122	
Orët e humbura	4334	1032		704	0	6070	4592	1321		840	0	0	6753	4064	1232		648	0	0	5944	12990	3585		2192	0	0	18767	
Eurot (€)	7646	1778		1127	0	10551.00	7640	2078.1		1332.4	0	0	11050	6643	1910		1008	0	0	9561.0	21928.77	5766.1		3467.4	0	0	31162.27	

Shpenz për shkak të aksid. për 2007	Puntor	(€)Euro	orë (h)	% (€)	@punt	(h)/1puntor
KEK	7498	148,059.64	90,383.00	100.00	19.75	12.05
DPQ	3427	102,870.88	61,522	69.48	30.02	17.95
DGJE	1554	28,351.83	18,039	19.15	18.24	11.61
DRR	1609	14,684.38	9,296	9.92	9.13	5.78
DFUR	500	1,752.55	1,126	1.18	3.51	2.25
TJERA	408	400.00	400	0.27	0.98	0.98

	Totali: Janar-Dhjetor 2007						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	104	51		21	7	1	184
Nr. lënd. që krij. shpenz.	78	40		14	3	1	136
Orët e humbura	7,350	3,112		1,440	326	176	12,404
Eurot (€)	12,006	5,129		2,297	445	176	20,052.57
Shfryt. e FL të mëhersh	355	102		51	6	2	516
Orët e humbura	54,172	14,927		7,856	800	224	77,979
Eurot (€)	90,865	23,222		12,388	1,308	224	128,007.1

ANALIZA E SHPENZIMEVE TË VITIT 2008 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2008							SHKURT -2008							MARS -2008							Janar-Mars:2008						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	8	4	6	1	0	19	4	4	5	0	0	13	8	6	5	2	0	21	20	14	16	3	0	53				
Nr. lënd. që krij. shpenz.	4	3	3	1	0	11	4	2	4	0	0	10	7	3	4	2	0	16	15	8	11	3	0	37				
Orët e humbura	392	296	168	96	0	952	432	152	224	0	0	808	776	264	440	168	0	1648	1600	712	832	264	0	3408				
Euro (€)	560.6	452.28	263.72	135.17	0	1411.77	654.44	227.31	363.13	0	0	1244.88	1262.9	396.23	704.28	431.03	0	2794.4	2477.89	1075.82	1331.13	566.2	0	5451.04				
Shfryt. e FL të mëhersh	23	10	5	0	0	38	31	12	8	1	0	52	31	14	11	1	0	57	85	36	24	2	0	147				
Orët e humbura	3912	1384	768	0	0	6064	4912	1880	1152	168	0	8112	4424	1960	1392	160	0	7936	13248	5224	3312	328	0	22112				
Euro (€)	6360	2156.19	1258.2	0	0	9774.39	7866.87	3028.4	1827.76	236.55	0	12959.54	7035	3062.96	2248	225.29	0	12571.5	21262.12	8247.51	5333.96	461.84	0	35305.43				
Prill -2008							MAJ -2008							QERSHOR -2008							Prill-Qershor:2008							
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	12	7	1	0	0	20	6	6	3	1	0	16	12	7	2	0	1	22	30	20	6	1	1	58				
Nr. lënd. që krij. shpenz.	8	6	0	0	0	14	6	4	3	1	0	14	12	6	2	0	1	21	26	16	5	1	1	49				
Orët e humbura	1032	568	0	0	0	1600	544	472	240	56	0	1312	984	768	232	0	72	2056	2560	1808	472	56	72	4968				
Euro (€)	1629.3	982.7	0.0	0.0	0.0	2611.92	878.53	721.11	470.57	95.26	0	2165.47	1770.35	1299.99	418.52	0	110.07	3598.93	4278.13	3003.77	889.09	95.26	110.07	8376.32				
Shfryt. e FL të mëhersh	31	16	8	2	0	57	27	14	3	0	0	44	24	14	3	0	0	41	82	44	14	2	0	142				
Orët e humbura	4600	2416	1216	352	0	8584	4128	2192	352	0	0	6672	3648	2160	480	0	0	6288	12376	6768	2048	352	0	21544				
Euro (€)	7745.6	3750.1	1903.6	733.3	0	14132.53	6576.49	3589.88	567.08	0	0	10733.45	6263.4	3594.76	986.66	0	0	10844.82	20585.45	10934.72	3457.29	733.34	0	35710.8				
KORRIK -2008							GUSHT -2008							SHTATOR -2008							Korrik-Shtator:2008							
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	11	4	2	0	0	17	7	6	2	0	1	16	6	4	5	0	0	15	24	14	9	0	1	48				
Nr. lënd. që krij. shpenz.	11	2	0	0	0	13	6	5	1	0	0	12	4	3	5	0	0	12	21	10	6	0	0	37				
Orët e humbura	1464	288	0	0	0	1752	400	536	120	0	0	1056	272	272	424	0	0	968	2136	1096	544	0	0	3776				
Euro (€)	2534	440.28	0	0	0	2974.64	771.59	857.11	380.69	0	0	2009.39	538.26	461.34	770.06	0	0	1769.66	3844.21	1758.73	1150.75	0	0	6753.69				
Shfryt. e FL të mëhersh	36	18	5	1	0	60	40	22	3	1	0	66	38	22	3	1	1	65	114	62	11	3	1	191				
Orët e humbura	6240	3312	760	184	0	10496	6240	3400	504	168	0	10312	5712	3232	504	168	168	9784	18192	9944	1768	520	168	30592				
Euro (€)	10746	5726.2	1392.6	345.79	0	18210.99	10956.7	5865.33	878.61	315.72	0	18016.37	10253.5	5415.4	897.9	315.72	187.31	17069.9	31956.6	17006.97	3169.17	977.23	187.31	53297.28				
TETOR -2008							NËNTOR -2008							DHJETOR -2008							Tetor-Dhjetor:2008							
	DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK		DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	9	7	5	0	0	21	8	7	9	0	0	24	6	5	0	0	0	11	23	19	14	0	0	56				
Nr. lënd. që krij. shpenz.	4	6	3	0	0	13	7	5	9	0	0	21	4	4	0	0	0	8	15	15	12	0	0	42				
Orët e humbura	464	488	176	0	0	1128	560	232	664	0	0	1456	368	424	0	0	0	792	1392	1144	840	0	0	3376				
Euro (€)	782.4	909.53	302.81	0	0	1994.78	992.56	405.52	1244.22	0	0	2642.30	678.5	738.58	0	0	0	1417.08	2453.5	2053.63	1547.03	0	0	6054.16				
Shfryt. e FL të mëhersh	34	19	6	0	0	59	31	18	4	0	0	53	39	19	11	0	0	69	104	56	21	0	0	181				
Orët e humbura	5184	3188	776	0	0	9148	4528	2600	880	0	0	8008	5800	3128	1168	0	0	10096	15512	8916	2824	0	0	27252				
Euro (€)	9854	5548.16	1458.9	0	0	16860.62	8028.3	4552.21	1591.63	0	0	14172.11	10230.7	5481.3	2154.8	0	0	17866.8	28112.56	15581.66	5205.32	0	0	48899.54				
Shpenz për shkak të aksid. për 2008							Punëtor							Totali: Janar-Dhjetor 2008														
KEK						7552	199,848.26	117,028	100.00	26.46		15.50	DPQ	DGJE	DRR	DFUR	TJERA	KEK										
DPQ						3406	114,970.46	67,016	45.10	33.76		19.68																
DGJE						1589	59,662.81	35,612	21.04	37.55		22.41																
DRR						1695	22,083.74	12,640	22.44	13.03		7.46																
DFUR						456	2,833.87	1,520	6.04	6.21		3.33																
TJERA						406	297.38	240	5.38	0.73		0.59																

ANALIZA E SHPENZIMEVE TË VITIT 2009 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2009						SHKURT -2009						MARS -2009						Janar-Mars:2009									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	8	6		0	1	16	6	6		2	0	1	15	13	8		2	1	0	24	27	20		4	2	2	55	
Nr. lënd. që krij. shpenz.	3	5		0	1	10	3	5		2	0	1	11	9	5		0	1	0	15	15	15		2	2	2	36	
Orët e humbura	296	520		0	112	64	992	256	472		160	0	56	944	856	488		0	80	0	1424	1408	1480		160	192	120	3360
Euro (€)	567.69	871.14		0	514.94	90.11	2043.88	435.50	907.20		284.50	0	164.50	1791.70	1410.9	844.6		0	252.9	0	2508.4	2414.08	2622.94		284.5	767.84	254.61	6343.97
Shfryt. e FL të mëhersh	33	17		0	0	0	50	35	22		3	0	1	61	35	19		4	0	0	58	103	58		7	0	1	169
Orët e humbura	4856	2248		0	0	0	7104	5230	2832		456	0	152	8670	6006	3256		704	0	0	9966	16092	8336		1160	0	152	25740
Euro (€)	9255	4016.1		0.0	0	0	13271.02	10347.50	4845.50		862.20	0.00	214.50	16269.70	11709.2	5555.8		1268.4	0	0	18533.4	31311.64	14417.34		2130.61	0	214.50	48074.09

	Prill -2009						MAJ -2009						QERSHOR -2009						Prill-Qershor:2009									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	6	5		3	0	2	16	6	6		6	1	0	19	10	9		1	2	0	22	22	20		10	3	2	57
Nr. lënd. që krij. shpenz.	6	4		3	0	0	13	5	6		5	0	0	16	8	8		1	0	0	17	19	18		9	0	0	46
Orët e humbura	416	312		192	0	0	920	288	480		336	0	0	1104	736	848		72	0	0	1656	1440	1640		600	0	0	3680
Euro (€)	759.1	573.9		364.1	0.0	0.0	1697.19	538.41	794.38		688.54	0	0	2021.33	1325.8	1548.9		144.83	0	0	3019.54	2623.34	2917.22		1197.5	0	0	6738.06
Shfryt. e FL të mëhersh	40	20		5	0	1	66	40	23		6	0	0	69	37	24		11	0	0	72	117	67		22	0	1	207
Orët e humbura	6126	2808		616	0	120	9670	5472	3144		912	0	0	9528	6318	4080		1880	0	0	12278	17916	10032		3408	0	120	31476
Euro (€)	11672.5	4978.1		1124.6	0.0	352.78	18127.96	10042.11	5627.6		1689.47	0	0	17359.18	10913	7156.1		3536.3	0	0	21605.15	32627.32	17761.83		6350.36	0	352.78	57092.29

	KORRIK -2009						GUSHT -2009						SHTATOR -2009						Korrik-Shtator:2009									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	8	13		1	2	0	24	9	5		6	1	2	23	9	2		1	0	0	12	26	20		8	3	2	59
Nr. lënd. që krij. shpenz.	8	10		1	2	0	21	3	2		3	1	1	10	7	2		0	0	0	9	18	14		4	3	1	40
Orët e humbura	576	696		96	160	0	1528	304	104		240	56	48	752	576	232		0	0	0	808	1456	1032		336	216	48	3088
Euro (€)	1134.4	1177.2		193.10	321.84	0	2826.50	503.36	194.12		426.48	112.64	81.66	1318.26	947.3	388.7		0	0	0	1336.00	2585.02	1760.02		619.58	434.48	81.66	5480.76
Shfryt. e FL të mëhersh	44	25		8	1	0	78	40	29		9	2	0	80	42	31		8	2	1	84	126	85		25	5	1	242
Orët e humbura	7248	3840		1344	184	0	12616	6136	4552		1352	336	0	12376	6352	4368		928	280	168	12096	19736	12760		3624	800	168	37088
Euro (€)	12909.7	6876.5		2598.76	370.10	0	22755.04	11358.5	7993.37		2557.41	675.86	0	22585.09	12102.6	7842.5		1698.1	563.2	187.3	22393.7	36370.7	22712.4		6854.27	1609.16	187.3	67733.83

	TETOR -2009						NËNTOR -2009						DHJETOR -2009						Tetor-Dhjetor:2009									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	8	8		7	1	0	24	10	8		7	8	0	33	7	5		4	1	0	17	25	21		18	10	0	74
Nr. lënd. që krij. shpenz.	8	7		5	1	0	21	7	6		7	5	0	25	5	3		3	1	0	12	20	16		15	7	0	58
Orët e humbura	960	792		200	104	0	2056	632	536		552	288	0	2008	464	224		280	136	0	1104	2056	1552		1032	528	0	5168
Euro (€)	1772.1	1343.22		428.04	209.2	0	3752.59	1101.8	959.65		1001.88	595.41	0	3658.74	784.27	385.6		498.85	312.6	0	1981.32	3658.2	2688.47		1928.77	1117.21	0	9392.65
Shfryt. e FL të mëhersh	45	25		3	2	1	76	43	24		7	0	1	75	46	30		15	2	0	93	134	79		25	4	2	244
Orët e humbura	7080	4144		488	272	176	12160	6128	3600		1120	0	80	10928	7072	5152		2360	320	0	14904	20280	12896		3968	592	256	37992
Euro (€)	12745	7426.66		883.6	547.12	196.2	21798.44	11155.4	6329.2		2045.07	0	98.2	19627.82	12871.0	9120.0		4025.9	694.26	0	26711.2	36771.22	22875.86		6954.56	1241.38	294.4	68137.42

Shpenz për shkak të aksid. për 2009	Punëtor	(€)Euro	orë (h)	% (€)	€/punt	(h)/1punto
KEK	7788	268,993.07	147,592	100.00	34.54	18.95
DPQ	3379	148,361.52	80,384	43.39	43.91	23.79
DGJE	1609	87,756.08	49,728	20.66	54.54	30.91
DRR	2299	26,320.15	14,288	29.52	11.45	6.21
DFUR	103	5,170.07	2,328	1.32	50.19	22.60
TJERA	398	1,385.25	864	5.11	3.48	2.17

	Totali: Janar-Dhjetor 2009						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	100	81		40	18	6	245
Nr. lënd. që krij. shpenz.	72	63		30	12	3	180
Orët e humbura	6,360	5,704		2,128	936	168	15,296
Euro (€)	11,280.6	9,988.7		4,030.35	2,320	336.3	27,955.44
Shfryt. e FL të mëhersh	480	289		79	9	5	862
Orët e humbura	74,024	44,024		12,160	1,392	696	132,296
Euro (€)	137,081	77,767.4		22,289.80	2,851	1,049.0	241,037.63

ANALIZA E SHPENZIMEVE TË VITIT 2010 PËR LËNDIME NË KEK DHE DIVIZIONE

	J A N A R -2010						SHKURT -2010						MARS -2010						Janar-Mars:2010					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	10	4	1	1	0	16	14	4	2	9	0	29	6	5	4	3	0	18	30	13	7	13	0	63
Nr. lënd. që krij. shpenz.	7	4	1	0	0	12	11	3	2	5	0	21	4	5	3	1	0	13	22	12	6	6	0	46
Orët e humbura	768	296	8	0	0	1072	1136	368	96	448	0	2048	384	400	320	160	0	1264	2288	1064	424	608	0	4384
Euro (€)	1310.45	536.59	16.09	0	0	1863.13	2026.18	621.28	187.59	896.92	0.00	3731.97	670.1	733.33	585.82	367.82	0	2357.03	4006.69	1891.20	789.50	1264.74	0.00	7952.13
Shfryt. e FL të mëhersh	38	25	0	0	0	63	35	26	10	2	0	73	34	21	9	4	0	68	107	72	19	6	0	204
Orët e humbura	4864	3408	0	0	0	8272	5080	3376	1296	224	0	9976	5664	3376	1344	544	0	10928	15608	10160	2640	768	0	29176
Euro (€)	8818.66	5977.7	0.0	0	0	14796.32	9280.75	5990.42	2363.38	494.26	0.00	18128.81	10449.0	6087.6	2487.9	1163.21	0	20187.67	28548.45	18055.63	4851.25	1657.47	0.00	53112.80

	Prill -2010						MAJ -2010						QERSHOR -2010						Prill-Qershor:2010					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	7	6	3	5	0	21	9	5	1	4	0	19	9	13	2	3	0	27	25	24	6	12	0	67
Nr. lënd. që krij. shpenz.	7	4	2	4	0	17	9	5	1	2	0	17	8	13	2	2	0	25	24	22	5	8	0	59
Orët e humbura	696	312	208	192	0	1408	624	488	40	136	0	1288	832	1392	128	160	0	2512	2152	2192	376	488	0	5208
Euro (€)	1284.1	603.8	389.0	386.2	0.0	2663.04	1071.55	813.21	126.9	273.57	0	2285.23	1533.6	2567.8	235.86	344.83	0	4682.15	3889.28	3984.81	751.73	1004.6	0	9630.42
Shfryt. e FL të mëhersh	28	19	5	2	0	54	29	14	6	3	1	53	27	14	6	5	0	52	84	47	17	10	1	159
Orët e humbura	3928	2688	656	296	0	7568	4112	1688	912	440	80	7232	4433	2416	1008	696	0	8553	12473	6792	2576	1432	80	23353
Euro (€)	6904.3	4783.6	1170.3	680.5	0	13538.66	7602.02	2994.89	1659.75	324.14	234.94	12815.74	8247.8	4214.6	2152.0	1450.57	0	16064.96	22754.1	11993.11	4982.04	2455.17	234.94	42419.36

	KORRIK -2010						GUSHT -2010						SHTATOR -2010						Korrik-Shtator:2010					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	7	7	1	4	0	19	10	3	1	3	1	18	12	4	0	1	0	17	29	14	2	8	1	54
Nr. lënd. që krij. shpenz.	7	6	0	1	0	14	9	2	0	3	1	15	10	3	0	1	0	14	26	11	0	5	1	43
Orët e humbura	488	448	0	72	0	1008	960	120	0	208	104	1392	936	224	0	69	0	1229	2384	792	0	349	104	3629
Euro (€)	879.3	819.7	0.00	144.83	0	1843.79	1722.16	211.72	0	464.36	354.44	2752.68	1584.66	372.05	0	193.1	0	2149.81	4186.07	1403.48	0.00	802.29	354.44	6746.28
Shfryt. e FL të mëhersh	31	23	8	4	0	66	34	21	7	3	0	65	39	14	18	6	1	78	104	58	33	13	1	209
Orët e humbura	5328	3544	1400	704	0	10976	5448	3384	1232	392	0	10456	5608	2032	1661	880	168	10349	16384	8960	4293	1976	168	31761
Euro (€)	9916.8	6467.6	2876.77	1466.56	0	20727.79	10427.0	5791.97	2293.04	799.99	0	19312.04	10651.6	3785.6	2952.4	1908.05	572.55	19870.26	30995.46	16045.24	8122.24	4174.6	572.55	59910.09

	TETOR -2010						NËNTOR -2010						DHJETOR -2010						Tetor-Dhjetor:2010					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	3	6	1	3	0	13	13	8	3	1	1	26	4	5	3	3	1	16	20	19	7	7	2	55
Nr. lënd. që krij. shpenz.	2	5	0	2	0	9	10	5	1	1	1	18	4	4	2	1	0	11	16	14	3	4	1	38
Orët e humbura	120	440	0	192	0	752	768	632	104	136	152	1792	352	464	104	48	0	968	1240	1536	208	376	152	3512
Euro (€)	244.1	1010.66	0	386.21	0	1640.92	1363.31	1265.42	185.29	273.56	249	3336.58	743.16	804.42	196.32	96.55	0	1840.45	2350.52	3080.5	381.61	756.32	249	6817.95
Shfryt. e FL të mëhersh	37	18	3	3	1	62	30	22	1	5	1	59	36	22	2	5	2	67	103	62	6	13	4	188
Orët e humbura	5520	2824	296	504	186	9330	4792	3352	168	776	168	9256	5784	3248	352	734	296	10414	16096	9424	816	2014	650	29000
Euro (€)	10202	5096.79	573.4	1013.82	572.55	17458.69	8721.0	6481.42	299.31	1590.8	572.55	17665.07	10388.5	6119.5	627.3	1577.18	797.06	19509.60	29311.59	17697.75	1500.06	4181.8	1942.16	54633.36

Shpenz për shkak të aksid. për 2010	Punëtor	(€)Euro	orë (h)	% (€)	€/punt	(h)/1punt
KEK	7749	241,222.4	130,043	100.00	31.13	16.78
DPQ	3329	126,042.2	68,625	42.96	37.86	20.61
DGJE	1576	74,151.72	40,920	20.34	47.05	25.96
DRR	1104	21,378.43	11,333	14.25	19.36	10.27
DFUR	1310	16,296.99	8,011	16.91	12.44	6.12
TJERA	430	3,353.09	1,154	5.55	7.80	2.68

	Totali: Janar-Dhjetor 2010					
	DPQ	DGJE	DRR	DFUR	TJERA	KEK
Nr. Lëndimeve	104	70	22	40	3	239
Nr. lënd. që krij. shpenz.	88	59	14	23	2	186
Orët e humbura	8,064	5,584	1,008	1,821	256	16,733
Euro (€)	14,432.56	10,359.99	1,922.84	3,828.0	603.4	31,146.78
Shfryt. e FL të mëhersh	398	239	75	42	6	760
Orët e humbura	60,561	35,336	10,325	6,190	898	113,310
Euro (€)	111,609.60	63,791.73	19,455.59	12,469.0	2,749.7	210,075.61

ANALIZA E SHPENZIMEVE TË VITIT 2011 PËR LËNDIME NË KEK DHE DIVIZIONE

	Janar 2011						SHKURT -2011						MARS -2011						Janar-Mars:2011									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	12	2		1	1	0	16	5	3		0	8	0	16	4	3		3	6	0	16	21	8	0	4	15	0	48
Nr. lënd. që krij. shpenz.	7	0		0	0	0	7	5	0		0	6	0	11	2	2		2	1	0	7	14	2	0	2	7	0	25
Orët e humbura	472	0		0	0	0	472	392	0		0	472	0	864	152	160		176	80	0	568	1016	160	0	176	552	0	1904
Euro (€)	823.45	0		0	0	0	823.45	635.59	0.00		0.00	965.53	0.00	1601.12	302.3	352.03		364.14	183.91	0	1202.33	1761.29	352.03	0	364.14	1149.44	0.00	3626.9
Shfryt. e FL të mëhersh	41	22		3	2	2	70	33	15		4	1	2	55	20	11		3	3	0	37	94	48	0	10	6	4	162
Orët e humbura	2448	1680		192	176	56	4552	2158	768		288	32	48	3294	1000	656		152	216	0	2024	5606	3104	0	632	424	104	9870
Euro (€)	4316.28	3024.6		347.6	354.03	175.77	8218.28	3726.08	1399.55		544.78	64.37	121.20	5855.98	2055.7	1319.0		336.2	521.11	0	4232.05	10098.07	5743.16	0	1228.60	939.51	296.97	18306.31

	Prill -2011						MAJ -2011						QERSHOR -2011						Prill-Qershor:2011									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	5	2		1	4	0	12	5	4		0	3	2	14	1	4		0	3	0	8	11	10		1	10	2	34
Nr. lënd. që krij. shpenz.	0	0		0	0	0	0	0	0		0	0	0	0	1	1		0	1	0	3	1	1		0	1	0	3
Orët e humbura	0	0		0	0	0	0	0	0		0	0	0	0	136	80		0	128	0	344	136	80		0	128	0	344
Euro (€)	0.0	0.0		0.0	0.0	0.0	0.00	0	0		0	0	0	0.00	254.8	158.0		0	294.25	0	707.03	254.8	157.98		0	294.25	0	707.03
Shfryt. e FL të mëhersh	20	16		5	1	0	42	21	15		1	1	0	38	58	31		4	3	1	97	99	62		10	5	1	177
Orët e humbura	1120	992		352	40	0	2504	1496	648		128	40	0	2312	4268	2104		352	192	88	7004	6884	3744		832	272	88	11820
Euro (€)	2219.4	2033.4		797.8	103.5	0	5154.08	3029.85	1546.29		264.83	91.95	0	4932.92	9178.2	4751.5		775.4	441.37	169.93	15316.40	14427.48	8331.21		1838.01	636.77	169.93	25403.40

	KORRIK -2011						GUSHT -2011						SHTATOR -2011						Korrik-Shtator:2011									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	1	2		3	4	0	10	4	3		1	1	1	10	8	2		3	3	0	16	13	7		7	8	1	36
Nr. lënd. që krij. shpenz.	0	1		0	0	0	1	1	0		0	0	0	1	1	2		0	2	0	5	2	3		0	2	0	7
Orët e humbura	0	16		0	0	0	16	88	0		0	0	0	88	144	160		0	176	0	480	232	176		0	176	0	584
Euro (€)	0.0	30.9		0.00	0.00	0	30.90	174.99	0		0	0	0	174.99	337.66	299.77		0	541.84	0	1179.27	512.65	330.67		0.00	541.84	0	1385.16
Shfryt. e FL të mëhersh	73	42		2	0	0	117	75	32		3	3	0	113	67	39		2	3	0	111	215	113		7	6	0	341
Orët e humbura	5546	2846		256	0	0	8648	5746	2284		320	224	0	8574	5920	2416		256	216	0	8808	17212	7546		832	440	0	26030
Euro (€)	11473.6	6002.7		529.66	0.00	0	18005.91	12073.6	4911.46		669.11	505.75	0	18159.92	12540.6	5506.8		529.7	530.57	0	19107.59	36087.8	16420.87		1728.43	1036.32	0	55273.42

	TETOR -2011						NËNTOR -2011						DHJETOR -2011						Tetor-Dhjetor:2011									
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK	DPQ	DGJE	DRR	DFUR	TJERA	KEK				
Nr. Lëndimeve	8	3		0	0	0	11	4	1		1	6	0	12	7	0		1	5	0	13	19	4		2	11	0	36
Nr. lënd. që krij. shpenz.	0	0		0	0	0	0	1	1		0	3	0	5	3	0		0	1	0	4	4	1		0	4	0	9
Orët e humbura	0	0		0	0	0	0	56	48		0	232	0	336	320	0		0	56	0	376	376	48		0	288	0	712
Euro (€)	0.0	0		0	0	0	0.00	114.9	98.48		0.00	517.88	0	731.26	600.92	0		0	128.74	0	729.66	715.82	98.48		0	646.62	0	1460.92
Shfryt. e FL të mëhersh	54	29		4	1	0	88	71	36		2	0	0	109	113	40		2	1	0	156	238	105		8	2	0	353
Orët e humbura	3918	2008		304	40	0	6270	5376	1984		224	0	0	7584	8314	3264		224	16	0	11818	17608	7256		752	56	0	25672
Euro (€)	8614	4469.1		640.0	82.76	0	13806.15	11494.8	4430.42		506.49	0	0	16431.71	17472.8	7294.5		524.0	36.78	0	25328.11	37581.89	16194.05		1670.49	119.54	0	55565.97

Shpenz për shkak të aksid. për 2011	Punëtor	(€)Euro	orë (h)	% (€)	€/punt	(h)/1punt
KEK	7749	161,729.11	76,936	100.00	20.87	9.93
DPQ	3329	101,439.80	49,070	42.96	30.47	14.74
DGJE	1576	47,628.45	22,114	20.34	30.22	14.03
DRR	1104	6,829.67	3,224	14.25	6.19	2.92
DFUR	1310	5,364.29	2,336	16.91	4.09	1.78
TJERA	430	466.90	192	5.55	1.09	0.45

	Totali: Janar-Dhjetor 2011						
	DPQ	DGJE	DRR	DFUR	TJERA	KEK	
Nr. Lëndimeve	64	29		14	44	3	154
Nr. lënd. që krij. shpenz.	21	7		2	14	-	44
Orët e humbura	1,760	464		176	1,144	-	3,544
Euro (€)	3,244.56	939.16		364.14	2,632.2	-	7,180.01
Shfryt. e FL të mëhersh	646	328		35	19	5	1,033
Orët e humbura	47,310	21,650		3,048	1,192	192	73,392
Euro (€)	98,195.24	46,689.29		6,465.53	2,732.1	466.9	154,549.10

**Rastet fatale të punëtorëve si pasoj e lëndimit në punë në
KEK pas vitit 1999 - luftës**

	Subjekti	Emri dhe mbiemri	Nr.pun.	Datëlindja	Dt.Lënd.	Data e Vdekjes
1	GJILAN	Qazim Frangu	0	1954	0	22.08.1999
2	ELEKTROBARTJE	Ruzhdi Berisha	0	25.05.1953	0	10.07.1999
3	ELEKTROBARTJE	Besnik Sinani	7932	15.05.1967	0	05.07.2000
4	DPQ,BARDH	Lulzim Ibrahim	50105	17.02.1980	0	02.10.2000
5	PRIZREN	Myzhdet Jyrysh	4344	27.10.1961	0	16.12.2000
6	PRIZREN	Menduh Asllani	0	24.05.1960	0	10.02.2000
7	DGJE,TC "Kosova -B "	Hamdi Ferat Grajqevci	16008	15.02.1967	07.02.2000	2000
8	DISTRIBUCIO,Mitrovica	Nazmi.O.Osmani	10230	08.02.1953	0	04.07.2000
9	DPQ,BARDHI	Dibran Krasniqi	592	13.08.1947	0	24.04.2001
10	DPQ,MS MIRASH	Izet(Mirena)Kajtazi	15080	13.02.1943	0	18.01.2001
11	DPQ,MS MIRASH	Nazmi Hashani	17839	15.02.1952	0	25.02.2001
12	DGJE,TC "Kosova -A "	Vehbi Krasniqi	2252	16.01.1952	0	21.03.2001
13	GJILAN	Remzush Fazliu	0	15.10.1964	0	30.03.2001
14	DGJE,TC "Kosova -B "	Vehbi Salih Duraku	16007	05.06.1957	..05.2001	2001
15	ELEKTROBARTJE	Bashkim Dedinca	7931	03.05.1977	0	25.05.2001
16	PEJË	Nikoll Ndrecaj	8776	29.03.1955	0	04.04.2001
17	DISTRIB,Mitrovicë	Hetem Shabani	2251	17.07.1952	0	26.06.2001
18	DISTRIBUCIONI	Ramadan Zeqiri	10387	17.07.1958	0	12.03.2001
19	DISTRIBUCIONI MITROVICË	Esat Isa Pula	13.05	15.05.1948	23.12.2001	07.01.2001
20	DREJTORIA E	Marian Ndrecaj	16019	14.09.1955	..6.2002	2001
21	PRIZREN	Manush Zeqiri	0	14.05.1966	06.04.2002	02.07.2002
22	PEJË	Fatos Demalia	0	0	25.06.2002	0
23	PRISHTINË	Idriz Rexha	0	1946	21.09.2002	0
24	MITROVICË	Osman Rexhepi Qoroviq	303	02.03.1943	06.07.2002	06.07.2002
25	DPQ,BARDHI	Dibran Berisha	16022	16.04.1943	..12.2002	2002
26	MBROJTJA DHE Siguria	Nazif Bekolli	16028	05.09.1973	...01.2003	2003
27	PRISHTINË	Xhafer Konushefci	3385	28.04.1950	25.12.2003	08.01.2004
28	DGJE,TC "Kosova -A "	Mustafë Ternava	1116	02.09.1950	18.11.2004	18.11.2004
29	DPQ Mirash	Ekrem Ibrahim	1973	30.08.1955	19.07.2004	19.07.2004
30	DPQ Mirash	Zymer Preniqi	309	19.12.1942	19.07.2004	19.07.2004
31	TEKNIK	Fatmir Shaqir Grajqevci	9188	15.11.1965	24.03.2005	08.05.2005
32	Ferizaj	Bilall Gashi	3515	20.12.1959	14.07.2005	14.07.2005
33	DPQ-Mirash	Abaz Hasan Mulaku	4776	10.01.1963	12.07.2006	12.07.2006
34	Dfur- Ferizaj	Perparim Berisha	10386	28.12.1969	01.09.2006	01.09.2006
35	DPQ-DMN	Fehmi Morina	7542	20.07.1958	02.10.2007	02.10.2007
36	DGJE,TC-A	Abdyl O Bajgora				03.04.2008
37	DGJE,TC-A	Bahri B Salihu				27.09.2008
38	Dfur- Gjakovë	Zef Pren Gjini				26.08.2009
39	DRr,Pejë	Maxhun Nezir Malaj				02.09.2009
40	DRr,Pejë	Avni Ibrahim Istrefi				31.03.2010

E cene brezluare
2008



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Republic of Kosova
Republika Kosova



Komuna e Obiliqit
Municipality of Obilic
Opstina Obilic

Zyra e Informimit
25.04.2008

Për : Komisionin Parlamentar për Bujqësi, Pylltari, Zhvillim Rural dhe çështje të ambientit , zn Selvie Halimi, z. Berat Luzha dhe zn.Elheme Hetemi

**Nga: Safete Graiçevci, udh. e Zyrës së Informimit
Nazif Shala, udh. i Sektorit për Ambient dhe Ekologji**

Raport mbi të dhënat e ndikimit të KEK-ut në mjedis, në komunën e Kastriotit

Të nderuar,

Bazuar në kërkesën tuaj gjatë vizitës në komunës së Kastriotit më 22 prill. "Dita e Planetit të Tokës" dhe bazuar në shqetësimet të cilat para jush paraqiti kryetari i komunës së Kastriotit, z. Rexhep Kelani, për çështjen e ambientit dhe marrëdhënieve KOMUNË -KEK, po ju dërgoj këtë raport me të dhënat e gjendjes momentale të ndikimit të KEK-ut në mjedis, të cilat janë siguruar nga Sektori i Ambientit dhe Ekologjisë i cili vepron në komunën tonë.

Njëkohësisht, ju i dëgjuat shqetësimet e kryetarit, e sidomos faktin se asnjëherë nuk u mundësua që në tryezë të ulen së bashku, MMPH, MEM, KPMM, KEK dhe institucioni i komunës së Kastriotit për të diskutuar bashkërisht për problemet që na preokupojnë.

Një kërkesë e tillë i është drejtuar të gjitha këtyre institucioneve, përfshirë këtu edhe presidentin e Republikës së Kosovës, z. Fatmir Sejdiu, Përf. Të PSSP-së Joakim Rychker dhe Kryeministrin të Kosovës, z. Hashim Thaçi.

Duke vlerësuar lart angazhimin tuaj për Ditën e Tokës, si dhe interesimin tuaj për të ndihmuar në këtë sferë, shpresojmë se do të jepni kontributin tuaj prej deputeti të Parlamentit të Kosovës që kjo çështje të gjejë zgjidhje të drejtë për të gjitha palët.

Me respekt!

P.S. të bashkëngjitur e keni edhe raportin.

Ftesë e anëtarëve të grupit Profesionistë

Duke u bazuar në vendimin e datës 17.07.2008, të Ministrisë së Mjedisit dhe Planifikimit Hapësinor lidhur me formimin e Grupit Profesional dhe detyrat e përcaktuara me këtë vendim, për takimin e radhës, caktoj rendin e ditës dhe detyrat e veçanta për çdo anëtarë të grupit :

Pika e 1.- Mbledhja e të dhënave për shkaqet e rreziqeve të vendbanimeve (fshati Dardhishte dhe fshati Grabofc), anëtarët e grupit të profesionistëve kanë këto detyra:

- a. Bexhet Shala, ti siguroj të dhënat e nevojshme nga Subjektet e KEK-ut, për :
 - i. Projektin e fundit të hartuar për deponimin e hirit të TC Kosova "A" në lokacionin e fshatit Dardhishte;
 - ii. Projektin e palosjes së djerrinë nga Sektori Lindor i M.S. Mirash nën deponin e hirit të TC Kosova "A";
 - iii. Projektin e stabilitetit të Deponisë së hirit në Lokacionin e fshatit Dardhishte;
 - iv. Projektin e kthimit të hirit nga deponia e Dardhishtës në zbrastësinë e MS Mirash;
 - v. Harta e incizimit të fundit gjeodezik në lokacionin e Dardhishtës;
 - vi. Shpronësimin (eksproprijimin) e pasurisë (tokave), nga ato private në prona të KEK-ut (hartat e shpronësimit në rrethinën e këtyre dy vendbanimeve);
 - vii. Punimet e vjetra nëntokësore (hartat e punimeve të vjetra nëntokësore në lokacionin e fshatit Dardhishte);
 - viii. Evidencën e KEK-ut lidhur me hedhurinat (fenolet) në zbrastësit e punimeve të vjetra nëntokësore në lokacionin e fshatit Dardhishte;
 - ix. Projektin e fundit të hartuar për zhvendosjen e shtratit të lumit Sitnica, lokacioni fshatit Dardhishte;
 - x. Projektin e hartuar për mihjen e re sipërfaqësore të Sitnicës, lokacioni fshatit Dardhishte;
 - xi. Të dhënat tjera për ndotjen e ajrit, tokës, ujit dhe zhurmës, për lokacionin e fshatit Dardhishte dhe fshatit Grabofc.
 - xii. Të dhënat tjera nga Instituti i Medicinës së Punës lidhur me gjallesat (njerëzit, kafshët, shpezët etj.), për te dy vendbanimet;
 - xiii. Të dhënat tjera në përputhje me vendimin.
- b. Nazif Shala dhe Safete Grajqefci, ti siguroj të dhënat e nevojshme nga evidenca e KK të Kastriotit, për :
 - i. Hartën kadastrale të Kastriotit – Zona e fshatit Dardhishte;
 - ii. Rreziqet eventuale të ndodhura në lokacionin e fshatit Dardhishte dhe evidenca e KK për pasojat eventuale nga këto rreziqe (dëshmitë).
 - iii. Strategjinë e KK të Kastriotit për tu marrë me këto probleme-rreziqe;
 - iv. Planin hapësinor të KK të Kastriotit nëse duhet të zhvendoset një pjesë e fshatit Dardhishte (projekti për lokacionin e paraparë për këtë zhvendosje);
 - v. Evidencën e Shpronësimit (eksproprijimin) të pasurisë (tokave), nga ato private në prona të KEK-ut (hartat e shpronësimit në rrethinën e fshatit Dardhishte);
 - vi. Të dhënat tjera për ndotjen e ajrit, tokës, ujit dhe zhurmës, për lokacionin e fshatit Dardhishte;
 - vii. Të dhënat tjera lidhur me gjallesat (njerëzit, kafshët, shpezët etj.), për lokacionin e fshatit Dardhishte;
 - viii. Të dhënat tjera në përputhje me vendimin.
- c. Hasime Qyqalla, ti siguroj të dhënat e nevojshme nga KK Fushë Kosovës, për :
 - i. Hartën kadastrale të Fushë Kosovës – Zona e fshatit Grabofc;
 - ii. Rreziqet eventuale të ndodhura në lokacionin e fshatit Grabofc dhe evidenca e KK për pasojat eventuale nga këto rreziqe (dëshmitë).
 - iii. Strategjinë e KK të F. Kosovës për tu marrë me këto probleme-rreziqe;
 - iv. Planin hapësinor të KK të F. Kosovës nëse duhet të zhvendoset një pjesë e Fshatit Grabofc (projekti për lokacionin e paraparë për këtë zhvendosje);

Ministri Jagcilar njoftohet me hallet e banorëve të fshatit Dardhishtë, të Kastriotit

vizituan sot banorët e fshatit “Dardhishtë”, me ç’rast u njoftua për së afërmi me gjendjen faktike të asaj zone e cila, për shkak të mihjes sipërfaqësore në afërsi të fshatit, po rrezikohet vazhdimisht nga shembja e dheut. Në këtë zonë ndodhen shtatëdhjetë shtëpi ndërsa për dhjetë prej tyre, KK i Kastriotit me ndihmën e Agjencisë Evropiane, ka bërë zgjidhje duke siguruar troje ndërtimi dhe duke ua ndërtuar shtëpitë në Shkabaj.

Banorët e këtij fshati po ashtu kishin ankesa të shumta edhe për ndotjen e madhe që ua shkakton deponia e hirit.

Si raste emergjente tani janë edhe 60 shtëpi, të cilat janë të rrezikuara nga shembja e kohëpaskohshme e dheut.

Ministr Jagcilar iu premtoi këtyre banorëve se shumë shpejt, së bashku me Ministrinë e Energjisë dhe Minierave dhe KK të Kastriotit, do ta shqyrtojnë këtë problem dhe do të hartojnë një projekt të qëndrueshëm për të bërë një zgjidhje sa më të mirë për të gjithë këta banorë të asaj zone me rrezikshmëri, njofton Zyra për informim pranë MPH-së.

[s.b & RTK staff]



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REPUBLIKA E KOSOVËS/REPUBLIKA KOSOVA/ REPUBLIC OF KOSOVO
QEVERIA E KOSOVËS / VLADA KOSOVA /GOVERNMENT OF KOSOVA
MINISTRIA E ENERGJISË DHE MINIERAVE/ MINISTARSTVO ENERGETIKE I RUDARSTVA/ MINISTRY OF
ENERGY AND MINING

PËR/ZA/TO:	Znj. Justina PULA, Ministre e MEM			
CC:	Bedri DRAGUSHA,			
PËRMES/PREKO/THROUGH:				
NGA/OD/FROM:	Florin HOXH U.d. Drejtor Institutit (IHTLM), MEM, Hysni KOMONI Inspektor, MEM			
TEMA/SUBJEKAT/SUBJECT:	RAPORT NGA VIZITA NË FSHATIN DARDHISHTË			
Nr. i zyrës:	Lokacioni:	Data:	25.03.08	
Br. kancelarije:	Kucni:	Datum:		
Room No.:	Extension:	Date:		

RAPORT NGA VIZITA NË FSHATIN DARDHISHTË

Me kërkesë të Ministrës, vizitua fshatin Dardhishtë për të verifikuar gjendjen faktike mbi rrëshqitjen e deponisë së hirit, djerrinës dhe ndikimin e ndotjes së ambientit në këtë fshatë.

Vizita u realizua në prezencë të përfaqësuesve të fshatit dhe fshatarëve të fshatit Dardhishtë të cilët kishin drejtuar një ankesë për disa Institucione të Qeverisë së Kosovës, ndër tjera edhe Ministrisë së Energjisë dhe Minerave.

Në bazë të vizitës së realizuar raportojmë këtë:

Fshati Dardhishtë shtrihet në mes të deponisë së hirit në lindje, TC Kosova A në veri, lumit Sitnica dhe deponim së djerrinës dhe deponisë së mbeturinave urbane në perëndim dhe Fushë Kosovës në jug.

Në pjesën ku ndodhet deponia e hirit vërehen rrëshqitje të dukshme apo shkëputje të hirit si dhe rrëshqitje të trolit deri në afërsi të shtëpive të para të lagjes (të quajtur lagja e hirit). Largësia nga deponia e hirit deri tek shtëpitë e para është afërsisht 100 m. Pjesa që ndan shtëpitë e para nga hiri është ish miniera nëntokësore e Dardhishtës ku në këtë sipërfaqe vërehen shembje të dukshme të dheut si pasojë e korridoreve nëntokësore të kësaj miniere ndërsa në sipërfaqe janë formuar gropa të mëdha të cilat tani janë të mbushura pjesërisht me ujë dhe janë rrezik permanent për fëmijët e fshatit dhe banorët në përgjithësi. Banorët e këtij fshati druajnë nga shembje të këtilla të papritura. Po ashtu në fushën e ish miniere nëntokësore gjithnjë sipas deklaratave të fshatarëve janë hedhur edhe sasi të mëdha të fenolëve të cilat kanë shkaktuar ndotjen e ambientit e të cilat edhe sot shkaktojnë ndotje ku vërehet edhe nga aroma e pa këndshme e cila lirohet nga kjo gropë.

Në bazë të deklaratave të fshatarëve ka pas raste kur në këto gropa kanë pësuar fëmijët e këtij fshati, po ashtu në bazë të deklaratave të tyre ka pas raste kur fëmijët e kanë humbur vetëdijen gjithmonë sipas tyre për shkak të lirimit të gazit nga ato gropa. Të njëjtat që i cekem më lartë qartë mund të shihen nga fotot të cilat janë të bashkangjitura raportit.

Nga ana tjetër fshati po ashtu është i rrezikuar për shkak të ndryshimit të rrjedhës së lumit Sitnica, ku shtëpia e parë nuk është më larg se 50 m nga rrjedha e re. Po ashtu ky fshat është i ndotur edhe nga gazrat që lirohen nga vetëndezja e qymyrit dhe ndezja e mbeturinave në deponin e mbetjeve urbane.

Fshataret ankohen edhe nga hirit fluturues i TC Kosova A i cili lirohet në mungesë të filtrave dhe i cili gjatë erërave të forta e mbulon fshatin me mjegull të krijuar nga hiri.

Në bazë të gjithë kësaj dhe gjendjes faktike mund të themi se ka rrëshqitje të vazhdueshme të hirit dhe djerrinës të cilat në çdo kohë paraqesin rrezik për shtëpitë më të afërta të këtij fshati, ku qartë mund të shihet nga fotot shkëputja e cila kishte ndodhë gjatë këtyre ditëve, ndërsa sa i përket ndotjes së ambientit kjo gjë është e njohur për shkak të pozitës që ka fshati si dhe nga studimet e ndryshme që janë bërë nga Institucione të ndryshme.

Me respekt,

Prishtinë, Mars 2008

-TC "Kosova-A"

- Emetimet e SO_2 , NO_x , CO , CO_2 , bloza, pluhurit, dhe sedimenteve të metaleve të rënda në pluhur siç janë Zn, Cu, Cd, Ni, Cr, Hg, Mn etj
- Ujërat e ndotura teknologjike-derdhen në lumin Sitnicë

-Mihjet sipërfaqësore të linjitit

- Emetimet e pluhurit
- Emetimet e zhurmës
- Peizazhi dhe degradimi i tokës
- Shkarkimi i ujërave (karburante dhe vajra të përdorura) në lumë-Sitnicë
- Emisionet në ajër nga zjarret në mihjet sipërfaqësore të linjitit- vetëndeja e thëngjillit

Duke u bazuar në këto shënime dhe të dhëna, Komuna e Kastriotit , gjendjen mjedisore në fshatin Dardhishtë e vlerëson si gjendje të rëndë dhe shumë emergjente dhe nga ju kërkojmë që të gjendet një zgjidhje sa më e shpejtë. Ne mendojmë se zgjidhja e vetme është zhvendosja e tërësishme e fshatit.. Një gjë të tillë komuna nuk ka mundësi buxhetore të bëjë , prandaj në vazhdimësi përballet me pamundësinë e zgjidhjes së këtyre problemeve, për të cilat shkaktohet është veprimtaria e prodhimit të KEK-ut.

Me respekt!



Republika e Kosovës • Republika Kosova • Republic of Kosova

Komisioni i Pavarur për Miniera dhe Minerale
Nezavisna Komisija za Rudnike i Minerale
Independent Commission for Mines and Minerals



Prishtina, 16.04.2008

Korporata Energjetike e Kosovës Sh.a.
Drejtorit, z. Remzi Shahini,

Lënda: Raporti i komisionit profesional për shqyrtimin e ankesës së fshatit Dardhishtë për aktivitetet e KEK-ut

I nderuari z. Shahini,

Fshati Dardhishtë ka bërë një ankesë në lidhje me aktivitetet e KEK-ut në zhvendosjen e lumit Sitnica, deponin e Hirit, si dhe hapjen e hinkave nga aktivitetet e mëhershme të KEK-ut.

KPMM ka formuar një komision profesional për të shqyrtuar këto shqetësime të banorëve të fshatit Dardhishtë.

Nga raporti të cilin e gjeni të bashkangjitur shihet se gjendja në këto zona është shumë alarmante dhe kërkohet nga KEK-u reagim i menjëhershëm në sigurimin e zonave të rrezikuara si dhe në sanimin e gjendjes së krijuar.

Prandaj ju lutem që menjëherë të filloni me marrjen e masave për të evituar vërejtjet që janë cekur në raportin e bashkangjitur, si dhe ta njoftoni KPMM-në lidhje me masat e ndërmarrura.

Nëse KEK-u nuk ndërmerr masa të menjëhershme për sanimin e gjendjes së krijuar atëherë KPMM do të detyrohet që të bëjë ndalimin e punës në minierat e KEK-ut si dhe vazhdimin e deponimit të hirit në deponit ekzistuese.

Kopje:

Z. Mahir Jakhillar, Ministër, MMPH
Znj. Justina Shiroka-Pula, Ministër, MEM
Z. Paul Acda, Udhëheqës i Shtyllës së IV, UNMIK,
Z. Rexhep Kelani, Kryetar, Komuna e Kastriotit,
Z. Ilir Salihu, zv. Drejtor, AKM
Bashkësia e Fshatit Dardhishtë
Z. Izet Shehu, KEK
Muhedin Haxhiu, KEK

Me respekt,

Azem Rexha
Drejtor i Minerave dhe Mineraleve
Komisioni i Pavarur për Miniera dhe Minerale

ICMM, KPMM, NKRM	
Nr.Prot.	606
Data:	16.04.08 Ora:
Për:	
Postë	<input checked="" type="checkbox"/>
Fax	<input type="checkbox"/>
e-mail	<input type="checkbox"/>

Rr. Rrustem Statovci 29
Prishtinë, Kosovë
Tel: +381 (38) 240 252
Fax: +381 (38) 245 844
E-mail: ICMM@kosovo-mining.org
Web: www.kosovo-mining.org

Kuvendi i Kosovës
Skupština Kosova
Assembly of Kosova



European Union



Foto.1. Pamja e deponitë së Hirit të TC- A, sektori perëndimor



Foto.2. Pamja e deponitë së Hirit të TC- A, sektori lindor

II. 2. Hinkat(spostimet) e krijuara në hapësirat mbi terrenin e ish minierës së Dardhishtës

Shfrytëzimet e mëhershëm të ish minierës së Dardhishtës kanë shkaktuar dhe po shkaktojnë spostime (deformime të terrenit sipërfaqësor) të cilat paraqesin rrezik potencial për jetën e njerëzve, shtazëve dhe pasurisë.

Për hinkën e fundit janë marrë masa nga KEK-u dhe janë vendosur rrethojat metalike si dhe shenjat e paralajmërimit dhe të rrezikut.

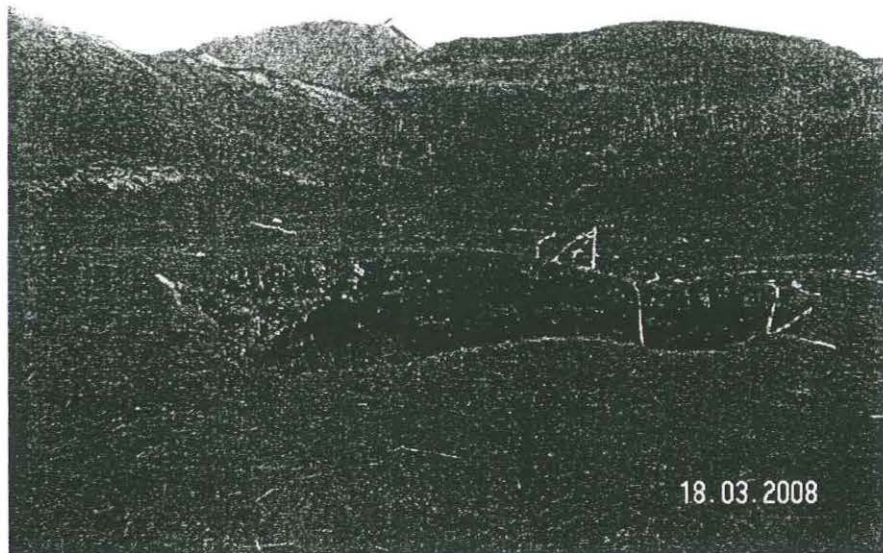


Foto. 3. pamja e spostimit të terrenit – hapja e hinkës



Foto. 4. Pamja e preventives- vendosja e rrethojës dhe shenjave të rrezikut

II. 3. Aktivitetet minerare në fushën qymyrore Sitnica dhe zhvendosja e Lumit Sitnica

II. 3. 1. Fusha qymyrore e Sitnices

Kjo fushë minerare shtrihet brenda zonës së KEK-ut, e licencuar nga KPMM, zonë kjo e cila është në tërësi e eksproprijuar. Arsyet e hapjes së kësaj fushe qymyrore konsistojnë në kufizimin-përfundimin e rezervave të qymyrit në minierat ekzistuese Bardh/Mirash, vonesat e hapjes së Minierës së Sibovcit Jug-Perëndim, si rezultat i vonesave në rehabilitimin e pajisjeve për angazhim në këtë minierë, dhe nevojave për qymyr për kapacitetet gjeneruese të termocentraleve Kosova A dhe Kosova B.

Për këtë minierë KEK-u ka dorëzuar në KPMM Projektet Plotësuese të Shfrytëzimit të hartuara nga Instituti INKOS.

Tani për tani nuk mund të konstatojmë se aktivitetet minerare do të kenë ndikim direkt apo indirekt në keqësimin e jetës dhe sigurisë së banorëve të fshatit Dardhishtë.

II. 3. 2. Zhvendosja e Lumit Sitnica

Është duke u bërë traseja e re e shtratit të lumit Sitnica në mënyrë profesionale dhe duke u mbikëqyrur nga KEK. Zona nëpër të cilën kalon traseja e re e Lumit Sitnica është e eksproprijuar në tërësi nga KEK.

Për zhvendosjen e shtratit të lumit Sitnica, KEK-u ka dorëzuar në KPMM Projektin e Zhvendosjes së Lumit.

Aktivitetet minerare këtu nuk parashihet që të ndikojnë negativisht në aspektin e sigurisë së banorëve të Dardhishtës dhe të pronës së tyre.

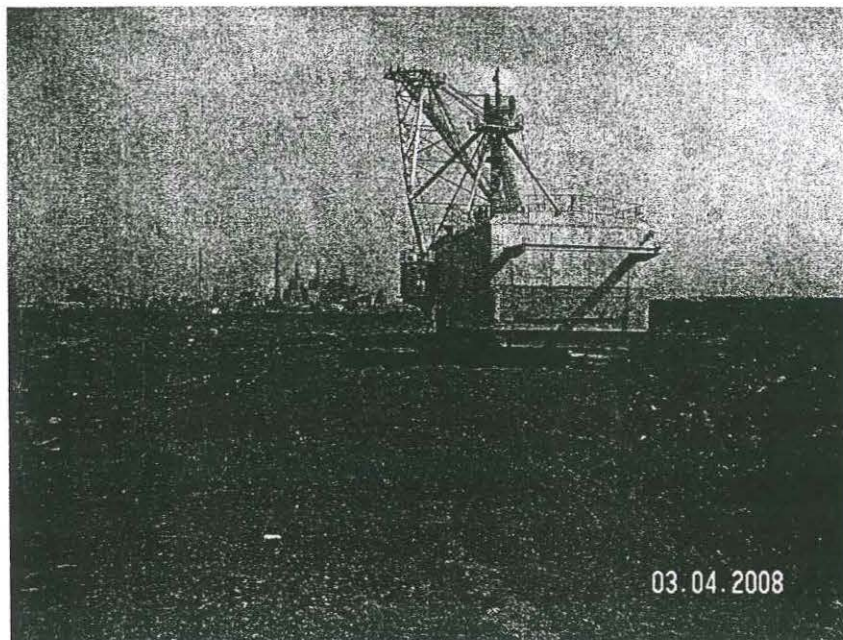


Foto.5. Punimet në trasenë e re të Lumit Sitnica

II. 4. PËRFUNDIMET DHE REKOMANDIMET

A) Për pikën II. 1, Deponinë e hirit të TC Kos-A

- Pjesa përfundimtare e deponimit të djerrinës dhe hirit është bërë në mënyrë jo profesionale-teknike dhe si e tillë paraqet rrezik nga rrëshqitje e pa kontrolluara dhe si të tilla paraqesin rrezik dhe dëm të paparashikueshme.
- KEK-u është i obliguar që merr masa teknike adekuate mbrojtëse për sanimin e gjendje së krijuar.
- KEK është i obliguar që të gjitha aktivitetet e ardhshme ta mbulojë me dokumentacion adekuat teknik.

B) Për pikën II. 2, Hinkat(spostimet) e krijuara në hapësirat mbi terrenin e ish minierës së Dardhishtës

- Të gjinden të gjitha hartat e situacionit dhe lokacionit të vend ndodhjes së punimeve të vjetra minerare të Minierës së Dardhishtës.
- Të bëhet identifikimi dhe përkufizimi i zonës së rrezikshme nga shembjet e punimeve të vjetra minerare nëntokësore dhe të merren masat e posaçme të sigurisë për tërë zonën.
- Të bëhet sigurimi i zonës në atë mënyrë sa që siguria të jetë e mjaftueshme për pengimin e pasojave eventuale

C) Për pikën II. 3.1, Aktivitetet minerare në fushën qymyrore Sitnica

- Projektet për sektorin e Sitnicës duhet fillimisht të revidohen nga një Institut i Pavarur profesional, e më pas të aprovohen nga KPMM.
- Mbetet obligim i KEK-ut që të Inspektoj, dhe monitoroj aktivitetet minerare në fushën qymyrore të Sitnicës dhe të raportoj për implikimet e mundshme në raport me banorët e Dardhishtës.

D) Për pikën II. 3. 2, Zhvendosja e Lumit Sitnica

- Procesi teknologjik për shfrytëzimin e qymyrit në sektorin e Sitnicës ka kushtëzuar zhvendosjen e lumit Sitnica.
- KEK-u është i obliguar që projektin e hartuar për zhvendosjen e lumit Sitnica duhet ta dërgoj për revidim në një Institucion përkatës dhe raportin e revidimit ta sjell për aprovim në KPMM.
- Mbetet obligim i KEK-ut që të monitoroj dhe raportojë për implikimet e mundshme gjatë dhe pas aktivitetit të zhvendosjes së Lumit Sitnica.

Komisioni Profesional i KPMM:

1. Sabri Avdullahi, Kryetar

2. Nazmi Bytyqi, Anëtar

3. Hasan Maksuti, Anëtar

4. Midin Bojaxhiu, Anëtar

Prishtinë: 11.04.2008

Këshilli i Urdhëtorëve-vece Urdhëtorit
ARKIVI-ARHIV
Nr.Br. 09-8-10
Dt. 21.05.2010



Republika e Kosovës
Republika Kosovo- Republic of Kosova
Qeveria Vlada -Government



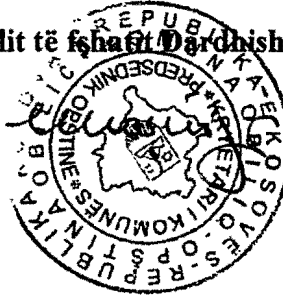
Kuvendi Komunal Obiliq - Skupština Opštine Obilić - Municipality Assembly Obiliq

Për: Z. Burim Gërguri- Kryetar i Këshillit të fshatit Dardhishtë

Nga: Z. Mehmet Krasniqi-Kryetar i komunës

Dt.8/05-2010

Obiliq



Lënda :Raport- Këshillit të fshatit Dardhishtë

Ministria e Mjedisit dhe planifikimit hapsinor më dt: 16/07-2008 ka formuar një grup punues (vendimi nr.19/06-08) që ka pas për detyrë të bëjë vlerësimin e rrezikut mjedisor në fshatin Dardhishtë. Grupi ka qenë i kryesuar nga zyrtari i kësaj ministrie z. Besim Dobruna. Në grupin punues ka qenë e përfaqësuar edhe komuna e Obiliqit. Në punimet e komisionit kemi qenë aktiv dhe kemi ofruar të gjitha të dhënat dhe dokumentacionin e nevojshëm për të argumentuar shqetësimet e banorëve të fshatit. Komisioni e ka përfunduar punën profesionale dhe ka mbet që Raporti përfundimtar nga ky grup punues të procedohet në Qeveri.

Në kuadër të kompetencave dhe mundësive buxhetore komuna do të merr përgjegjësin që do të adresohen për zgjidhjen e problemeve mjedisore të trashiguara nga aktivitetet minerare dhe gjenerimi i energjis elektrike në të kaluarën dhe tani.

Në fillim të viteve të 80-ta ish Elektroekonomia e Kosovës në emër të dëmeve që ju ka shkaktuar banorëve të fshatit e ka ndërtuar rrjetin e ujësjellsit për furnizim me ujë të pijëshëm dhe ka pasur marrëveshje të bëjë pagesen e ujit të pijëshëm që kanë shpenzuar këta banorë. Në të njëjtin vijë të rrjetit të ujësjellsit janë lidhur edhe objektet e KEK-ut. Në vitet e fundit banorët e këtij fshati ballafaqohen me ndalesa dhe reduktime të ujit për shkak të borgjeve që kanë ndaj KRU "Prishtina" në Prishtinë.

Kemi kërkuar (Dt: 7.05.2010.) nga KEK-u që të shqyrton mundësin se ndoshta KEK-u i paguan të gjitha shpenzimet që krijohen nga vija (rrjeti) e njëjtë e furnizimit me ujë dhe në të njëjtën kohë faturohen edhe shpenzimet e banorëve ose të përtrihet marrëveshja e mëherëshme në mes të banorëve të fshatit dhe KEK-ut.



Republika e Kosovës
Republika Kosova-Republic of Kosovo
Qeveria - Vlada-Government

Ministria e Mjedisit dhe Planifikimit Hapësinor
Ministarstvo Sredine i Prostornog Planiranja
Ministry of Environment and Spatial Planning

Inspektorati/Inspektorat/Inspectorat

LISTË DISTRIBUIMI/ CIRKULARNO PISMO/ ROUTING SLIP

REFERENCË:			
PËR/ZA/TO:	z. Mahir Jagcilar, Ministër i MMPH-së		
CC:			
PËRMES/PREKO/THROUGH:	z. Muhamet Aliu, Sekretar permanent i MMPH-së z. Besim Dobruna, U.D. e Kryeinspektorit të MMPH-së		
NGA/OD/FROM:	Vehbi Ejupi, Inspektor i Mjedisit Floriqe Kqiku, Inspektore e Ndërtimit		
TËMA/SUBJEKAT/SUBJECT:	Raport mbi aktivitetet e zhvilluara të MMPH-së në lidhje me Deponinë e hirit të KEK-TE "Kosova A" në fsh. Dardhishtë-Obiliq		
Nr. i zyrës:	Lokacioni:	Data:	16.04.2008
Br. kancelarije:	Kucni:	Datum:	
Room No.:	Extension:	Date:	
PËR AKTIVITET/ ZA AKTIVNOST/ FOR ACTION			<input type="checkbox"/>
PËR MIRATIM/ ZA USVAJANJE/ FOR APPROVAL			<input type="checkbox"/>
PËR NËNSHKRIM/ ZA POTPIS/ FOR SIGNATURE			<input type="checkbox"/>
PËR KOMENTE/ ZA KOMENTARE/ FOR COMMENTS			<input type="checkbox"/>
A MUND TË DISKUTOJMË/ DALI MOZEMO RASPRAVLJATI/ MAY ËE DISCUSS			<input type="checkbox"/>
VËMENDJA JUAJ/ VASA PAZNJA/ YOUR ATTENTION			<input checked="" type="checkbox"/>
SIPAS DISKUTIMIT/ KAKOJE RASPRAVLJENO/ AS DISCUSSED			<input type="checkbox"/>
SIÇ ËSHTË KËRKUAR/ KAKO JE ZATRAZENO/ AS REQUESTED			<input type="checkbox"/>
SHËNIM DHE PËRGJIGJE/ BELESKA I ODGOVOR/ NOTE AND RETURN			<input type="checkbox"/>
PËR INFORMIMIN TUAJ/ ZA VASU INFORMACIJU/ FOR YOUR INFORMATION			<input checked="" type="checkbox"/>
AFATI/KRAJNI ROK/ DEADLINE			

Faqe 1 nga 3

Vlerësimi i rrezikut të shëndetit të njeriut dhe mjedisit në fshatin Dardhishtë dhe Grabovc nga ndotja.

a) Gjendja mjedisore ekzistuese dhe identifikimi i ndotësve

- Ndotja e ajrit
- Ndotja e ujit
- Ndotja e tokës
- Çështja e sigurisë

Gjendja mjedisore mund të përshkruhet në bazë të informacioneve ekzistuese (monitorimet, studimet e mëhershme, elaboratet dhe projektet aktuale, vizitës, intervistat - nëse e nevojshme, etj).

Të dhënat mbi ndotjen duhet të analizohen dhe të vihen në relacion me kufijtë e lejueshëm (standartet dhe kufizimet ligjore - nëse jo vendore, me standartet evropiane, organizatës për shëndetësi etj).

Kjo duhet të bëhet, sepse vlerësimi duhet të bazohet në ndonjë parametër krahasues. Pra duhet të gjejmë argumentet, mbi të cilat mund të mbështetën më vonë propozimet e grupit.

b) Masat në zhvillim dhe ato të planifikuara për përmirësimin e gjendjes mjedisore në këtë zonë, si psh.

- Projekti i Bankës Botërore
- Transporti hidraulik i hirit Kosova A
- Modernizimi eventual i EF të Kosova A (donacion, investitor privat!?)

Vlerësimi i ndikimeve pozitive, dhe afatet kohore të pritura.

c) Planet zhvillimore/operacionale të KEK-ut dhe termocentrali i ri

- Zhvendosja e lumit Sitnica
- Hapja e minierës në sektorin lindor
- Ndërtimi i TC të ri, etj.

d) Mbi bazën e gjendjes ekzistuese dhe asaj të planifikuar, do të duhej dalë me propozimet dhe rekomandimet e masave për përmirësimin e gjendjes, apo edhe ndoshta zhvendosjes parciale, tërësishme etj.

Raport mbi vizitën në fsh. Grabovc , K Fushë Kosovë dhe në fsh. Dardhishtë, Obiliq.

Si rezultat i shumë ankesave të bëra nga qytetarët e fshatit Grabovc dhe Dardhishtë në lidhje me çrregullimet mjedisore që ju sjell sistemi prodhues i termoelektranës Kosova A; posaçërisht deponia e hirit në Dardhishtë ekipi nga MEM-i,MAPL-i, MMPH-së , K.Obiliqit dhe K. Fushë Kosovës doli në vendin e ngjarjes për të parë për së afërmi gjendjen faktike.

Gjatë kësaj vizite banorët njoftuan për së afërmi për gjendjen e rëndë mjedisore dhe i shprehën shqetësimet e tyre. Ata parashtruan disa kërkesa si :

- Të behët dislokimi i Lagjes Berishë të fsh. Grabovc
- Që menjëherë të ndërpritet aktiviteti i KEK-ut në afërsi (50 m) lagjes Berisha.

Gjendje e banorëve në fsh. Dardhishtë, Obiliq është alarmuese dhe si vijon: Ekziston presioni dhe rreziku permanent nga Deponia e hirit ku ende vazhdon aktiviteti i KEK-ut të deponimit hirit.

Sipas procesit teknologjik TC- A , ky hyri ka elemente mbeturinave të rrezikshme! Ekziston rreziku permanent nga ish-miniera për geostatikën e fshatit, Pritet ngritja e presionit dhe rrezikut nga miniera e re (në largësi afër 100 m) dhe nga Lumi Sitnica.

Rekomandimet:

Krijimi i grupit Punues për :

Vlerësimin e rrezikut në Grabovc dhe Dardhishtë,
Hartimin e Planit të intervenimit në rast të aksidentit ekologjik sipas nenit 27. të Ligjit për Mbrojtjen e Mjedisit (, Rregullores nr.2003/9) .

Permabajta e Grupit Punues:

- 2 anëtar nga MMPH,
- 2 anëtar nga MEM,
- 1 anëtar nga MAPL,
- 1 anëtar nga K. Obiliq,
- 1 anëtar nga K. Fushë Kosovës.

Me respekt

TEMA:

VLERËSIMI I RREZIÇEVE TË VENDBANIMEVE
(FSHATI DARDHISHTE DHE GRABOFC NGA OBJEKTET E KEK-ut)
DHE MASAT PËR MËNJANIMIN E TYRE

Përmbajtja.

Niveli i parë: **Paraqitja e gjendjes ekzistuese të rrethit të gjerë të këtyre vendbanimeve**

- Harta e gjendjes ekzistuese të vendbanimeve:
 - Fshati Dardhishte
 - Fshati Grabofc
- Harta e evidencës së zonave të eksproprijuar te këto vendbanime:
 - Rrethi i gjerë i Fshatit Dardhishte
 - Rrethi i gjerë i Fshatit Grabofc
- Harta gjendjes ekzistuese të Deponisë së hirit të Kosovës "A":
 - Harta e situacionit të Deponisë
 - Dy deri tri profile me drejtim Lindje-Perëndim (në drejtim të Fshatit Dardhishte)
- Harta e punimeve të vjetra nëntokësore të Dardhishtës:
 - Shtrirja horizontale e punimeve nëntokësore
 - Shtrirja e punimeve nëntokësore në thellësia
 - Të dhënat tjera
- Të dhënat për materialet e hedhura në zbrazësi të punimeve të vjetra në Dardhishte (Fenolët)
- Materialet tjera dokumentuese të hartuara për këto lokacione lidhur me ajrin, ujin, tokën, zhurma etj.
- Materialet tjera dokumentuese për efektet në shëndetin e gjallesave (njerëzve, kafshëve, shpezëve etj.)
- Të dhëna të tjera nga KEK-u, nga fshatarët e Fshatit Dardhishte, nga Inkos-i
- Të dhënat që dalin si obligim nga legjislativi i Republikës së Kosovës dhe nga direktivat e bashkësisë Evropiane etj.

Niveli i dytë: **Analiza e gjendjes ekzistuese të rrethit të gjerë të këtyre vendbanimeve**

- Analiza e gjendjes ekzistuese të vendbanimeve në bazë të hartës së situacionit:
 - Fshati Dardhishte
 - Fshati Grabofc
- Analiza e evidencës së zonave të eksproprijuar te këto vendbanime:

- Rrethi i gjerë i Fshatit Dardhishte
- Rrethi i gjerë i Fshatit Grabofc
- Analiza e gjendjes ekzistuese të Deponisë së hirit të Kosovës "A":
 - Analiza e Deponisë së hirit në bazë harta e situacionit të – incizimi ma i ri
 - Analiza e profileve (prerja vertikale) me drejtim Lindje-Perëndim (në drejtim të Fshatit Dardhishte)
- Analiza e punimeve të vjetra nëntokësore në Dardhishtë, në bazë të hartës së situacionit :
 - Analiza e shtrirjes horizontale të punimeve nëntokësore
 - Analiza e shtrirjes, në thellësi, të punimeve nëntokësore
 - Analizat tjera të rëndësishme nga të dhënat e prezantuara.
- Analiza e të dhënave për materialet e hedhura në zbrazësi të punimeve të vjetra në Dardhishte (Fenolët)
- Analiza e materialeve tjera dokumentuese të hartuara për këto lokacione lidhur me ajrin, ujin, tokën, zhurmën etj.
- Analiza e materialeve tjera dokumentuese për efektet në shëndetin e gjallesave (njerëzve, kafshëve, shpezëve etj.)
- Analiza e të dhëna të tjera nga KEK-u, nga fshatarët e Fshatit Dardhishte, nga Inkos-i
- Analiza e legjislativit dhe nxjerrja e obligimeve nga legjislativi i Republikës së Kosovës dhe nga direktivat e bashkësisë Evropiane etj.

Niveli i tretë: **Propozimi i zgjidhjeve në variante (së paku dy variante)**

Niveli i katërtë: **Zgjedhja e variantit ma të pranueshëm për KEK-un dhe fshatarët e vendbanimeve të rrezikuara**

Niveli i pestë: **Implementimi i variantit të zgjedhur.**

P. S.:

- **PËRGATITJA E TERMAVE TË REFERENCËS**
- **SIGURIMI I MJETEVE FINANCIARE PËR HARTIMIN E STUDIMIT – TË SHIKOHET RRUGA PREJ MJETEVE NJËBURIMORI**

NAZIM HOXHA, MEM

15.07.2008

PRISHTINË

4- Deponitë e hirit

-Ëmetimi i pluhurit

-Kontaminimi i ujërave me fenolë nga rrjedhjet prej deponive të hirit

5- Trafiku

-Ëmetimet në ajër dhe zhurma

6- Ndotja urbane

-Shkarkimet e ujërave të zeza me origjinë fekale të pa trajtuara

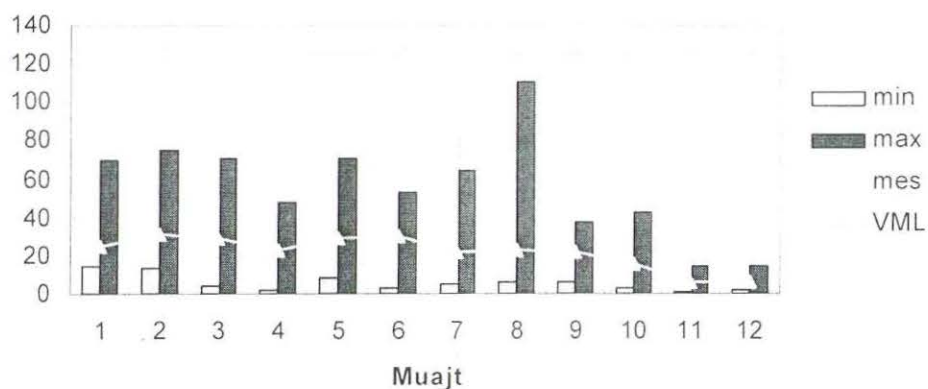
-Mbeturinat e ngurta urbane

7- Deponija sanitare e mbeturinave në Mirash

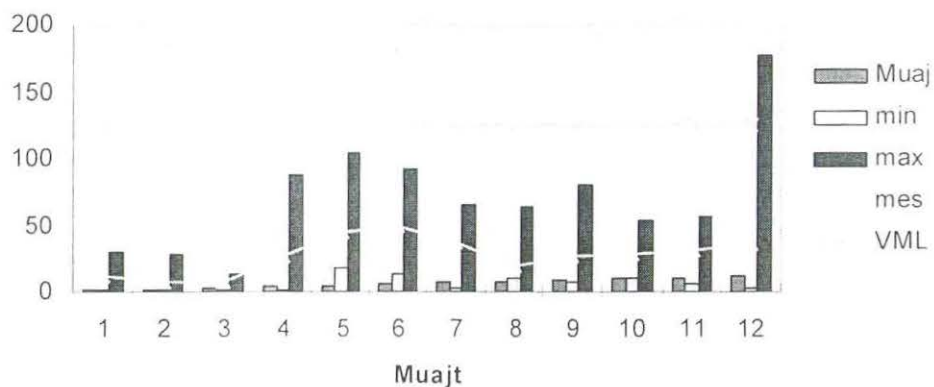
Shkarkimi i ujërave të ndotura në lumin Sitnicë

Ndotja e mjedisit në territorin e komunës është e përditshme, ndërsa shkalla e ndotjes varet nga kapacitet që janë në prodhim gjatë ditës, disa emisione i tejkalojnë vlerat e përqendrimit mesatar të lejuara nga Organizata botërore e shëndetësisë(OBSH), kështu që rrezikojnë shëndetin publik të banorëve si dhe ndikojnë në gjendjen socio-ekonomike të tyre. Monitorimi i shkallës së ndotjes në mjedis e bën IKOS-i dhe këtu më poshtë po i paraqesim disa matje që janë bërë nga INKOS-i.

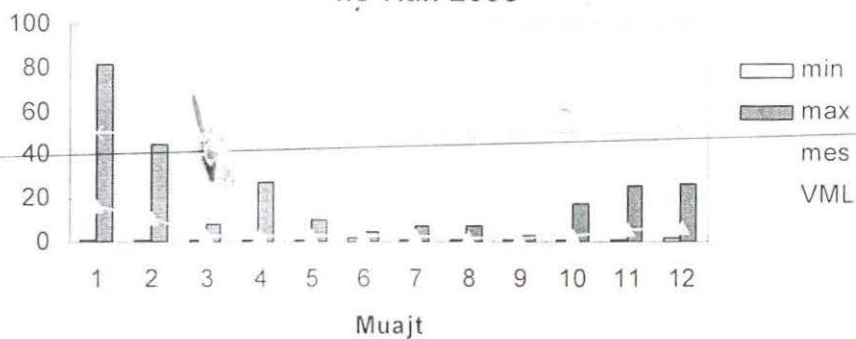
Përqendrimi i SO₂ gjatë viteve 2005-2006



Përqendrimi i SO2 gjate viteve 2005-2006



Përqendrimi i blozës (mikrogr/m3) në vitin 2006



Vlerat mesatare të pluhurit sipas INKOS-it, gjatë viteve

Ndotësi/vendi	INKOS	Kastriot	Bardh	PML	
Thërmijat ajrore	2002	85.13	-	119.04	150 µg/m ³
	2003	100.4	91.85	113.43	
	2004	56.8	-	-	
	2005	56.0	-	-	
Pluhuri deposit	2002	727	-	817.2	300 mg/(m ² d)
	2003	1865	553.61	410.85	
	2004	313	460	195	
	2005	429	428	-	

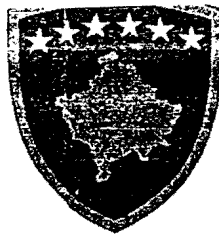
Shënim: Vlerat me ngjyrë të kuqe tregojnë për tejkalim të PML (përqendrimi maksimal i lejuar)

Nga të dhënat e paraqitura për vitin 2005, 2006 dhe 2007 në disa pika monitoruese janë regjistruar tejkalime të vlerave maksimale të lejuara. Bloza dhe grimcat e pluhurit të depozituar janë shënuar me tejkalime në disa raste, ndërsa SO₂ ka shënuar më pak tejkalime të VML, edhe pse në disa raste kanë qenë mjaft të larta

Gjendja më e rëndë mjedisore është në fshatin Dardhishtë. Fshati Dardhishtë është një vendbanim që shtrihet në jug të territorit të komunës së Kastriotit. Mjedisi jetësor në këtë vendbanim është nën presion të tri problemeve të mëdha mjedisore, në jug të fshatit gjendet deponija e hirit në lindje nga TC "Kosova A" ndërsa në perëndim të fshatit po bëhet hapja e mihjes së re sipërfaqësore të thëngjillit-sektori Sitnica.

Deponija e hirit TC "Kosova-A"i ka uzurpuar 242 ha dhe pjesa perëndimore e kësaj deponie të hirit dhe djerrinës është bërë në mënyrë jo profesionale-tekniqe kështu që ka filluar rrëshqitja e pa kontrolluar e saj dhe drejt për drejt për çdo ditë po e rrezikon jetën e banorëve që janë shumë afër kësaj deponie (50m). Po në këtë zonë gjendet edhe ish Miniera nëntokësore thëngjillit e cila ka qenë në punë gjatë viteve 1946-1960. Galeritë e kësaj miniere janë shfrytëzuar për hedhjen e mbetjeve teknologjike të Gazifikimit gjatë viteve 1980-1989 siç janë: fenolët, teri katran dhe vajra të rënda me origjinë nga thëngjilli. Në këtë zonë të punimeve të vjetra të Minerës janë paraqit shenja të shembjes së kësaj Miniere, në mars të këtij viti është paraqit shembja e fundit. Dysohet se shtëpitë e lagjes së hirit janë të ndërtuara mbi këtë zonë dhe kërkohet një zgjidhje shumë urgjente për sigurinë e këtyre banorëve. Nga zgjerimi i Mihjes sipërfaqësore të thëngjillit është dislokuar një pjesë e fshatit Hade, ndërsa pjesa e mbetur e banorëve të këtij fshati bën një jetë të vështirë të pa perspektivë me shqetësime nervore.

Nga zhvillimi i sektorit energjetik dhe nga eksploatimi i thëngjillit banorët e kësaj komune kanë një përvojë të hidhur për shkak se kanë pasoja negative e sidomos me pasoja në shëndetin e tyre. Nga Komisioni i pavarur për minierë dhe minerale, autoritet i autorizuar me rregulloren nr2005/3 për vendosjen e tarifave dhe taksave kemi bërë kërkesë që të vendosë një taksë ambientale për ndotje të mjedisit dhe të ndajë një përqindje nga tarifrat që janë të vendosura për eksploatimin e thëngjillit. KPMM ka përkrahur kërkesën tonë por kanë kërkuar që kjo çështje të rregullohet me një marrëveshje në mes të Ministrisë për Ekonomi dhe Financa, Ministrisë për Energji dhe Miniera dhe Komunës. Deri më sot nuk kemi arritur që të realizojmë këtë takim. Kërkojmë edhe nga Ju që të ne përkrahni në realizimin e kësaj marrëveshjeje.



REPUBLIC OF KOSOVO QEVERIA E KOSOVES MINISTRIA E MJEDISIT DHE PLANIFIKIMIT HAPESINOR MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING	Mir. Proc. Noj Prot. 09/1385/1 Prot. Noj.
Nr. i fazeve Br. Stranica No. Pages	Data : Datum : 20/06/2008 Date : Prishtinë / a

Republika e Kosovës
Republika Kosova-Republic of Kosovo
Qeveria -Vlada-Government

Ministria e Mjedisit dhe Planifikimit Hapësinor
Ministarstvo Sredine i Prostornong Planiranja
Ministry of Environment and Spatial Planning

ZYRA E MINISTRIT

KANCELARIJA MINISTRA

OFFICE OF THE MINISTER

Data: 11. 06. 2008

Nr. 19/06-08

- Duke u bazuar në nenin 1.3 pika (ç) të Rregullores së UNMIK-ut 2001/19 të Mbi Degën e Ekzekutivit të Institucioneve të Përkohshme të Vetëqeverisjes në Kosovë,
- Duke u bazuar në gjendjen momentale në fshatin Dardhishtë (Obiliq) dhe fshatin Grabovc (Fushë Kosovë) marr;

V E N D I M

Për formimin e grupit punues për vlerësimin e rrezikut nga aktivitetet e Korporatës KEK-u në fshatin Dardhishtë dhe Grabovc në këtë përbërje:

1. z. Besim Dobruna- MMPH- Kryetar i Grupit
2. z. Enver Tahiri- MMPH
3. znj. Gynaj Hallaq- MMPH
4. z. Skender Zogaj- MAPL
5. z. Nazim Hoxha- MEM
6. z. Sherafetin Mumciu – MEM
7. Përfaqësues i KEK-ut
8. Përfaqësues i Komunës Obiliq
9. Përfaqësues i Komunës Fushë Kosovë

Grupi ka për detyrë hartimin e planit të veprimit për vlerësimin e rrezikut në afat sa më të shkurtër. Dhe ky plan do t'i propozohet Qeverisë

Vendimi u dërgohet:

- Sekretarit të Përhershëm
- Zyrës së Ministrit
- Anëtarëve të grupit

Mahir Yağcılar
Ministër



Takim i Grupit Profesional i datës 01. 08 2008

Analiza e dokumentacionit te siguruar nga përfaqësuesit: KEK, KK Kastriot dhe MEM-i

Dardhishtë

Duke u bazuar ne qëndrimet te marra me datën 25.07.2008, personat e autorizuar Behxhet Shala përfaqësues i KEK-it dhe Nazim Hoxha përfaqësues i MEM-it edhe një here prej fillimit i morëm ne shqyrtim te tere dokumentacionit dhe për çdo dokumentacion veç e veç e morëm mendimin, material ky qe do te përgatitet për takimin e radhës te grupit profesional.

Ne baze te listës te cilën e kemi diskutuar bashkërisht ne takimin e datës 25.07.2008 janë dhënë mendimet si me poshtë :

1. Projekti i fundit i hartuar për deponin e hirit për TC Kosova A ne lokacionin e fshatit Dardhishte është i emërtuar "Zgjerimi i deponise ekzistuese te Hirit ne TC Kosova A", Prill 2008 i hartuar nga Instituti INKOS .

Projekti lartshënuar ne përmbajtjen e vet i ka te përpunuara këto veçori;

Karakteristikat gjeologjike te terrenit, analizat laboratorike gjeomekanike, incizimet gjeodezike, teknologjia dhe mënyra e deponimit si dhe masat mbrojtëse mjedisore.

Nga pikat e lartshënuar te këtij projekti mund te konstatohet ne vija te trasha se projekti është hartuar ne pajtim me kërkesën e investuesit Divizioni i Gjenerimit te KEK-it.

- Me këtë projekt është kërkuar qe te analizohet ne te gjitha rrethana për kalimin e deponimit te masave ne anën lindore te deponisë. Është me rëndësi te ceket se me këtë projekt nuk është trajtuar pjesa perëndimore dhe jugore e deponise dhe rrethit te deponise.

1. Për palosjen e djerrinës në pjesën lindore të deponis së hirit të Kosova A, KEK nuk disponon me projektin e palosjes dhe të dhënat tjera, si sasia e dheut të palosur, vetit dhe përmasat e sakta të kësaj djerrine.

Nga vështrimet ortografike të këtij territori, vërehet se nen ndikimin e presionit nga deponia e hirit masat palosura te dheut janë vu ne lëvizjen ne dy drejtime: ne anën jugore të djerrinës me drejtim te lëvizjes kah Jugu dhe ne anën perëndimore me drejtim te lëvizjes kah Perëndimi. Ne baze te një incizimi satelitor te deponisë se hirit, mund të jep këto vlera të përafërta: a) lartësia mbidetare e kësaj deponi është ca. 610 metra ndërsa lartësia e sipërfaqes së tokës, ne pjesën perëndimore të deponim, është ca. 536 metra. Do të thotë se deponia ka një lartësi rreth 74 metra, b) zonat më të rrezikuara nga rrëshqitjet e kësaj deponie, për shkak te sasive te larta të deponimit të hirit dhe djerrinës, janë ne anën jugore dhe atë perëndimore të deponim së djerrinës. Është me rëndësi të ceket se rrëshqitja në drejtim të perëndimit paraqet rrezik më të lartë, për shkak të afërsisë së vendbanimit të disa lagjeve të fshatit Dardhishtë.

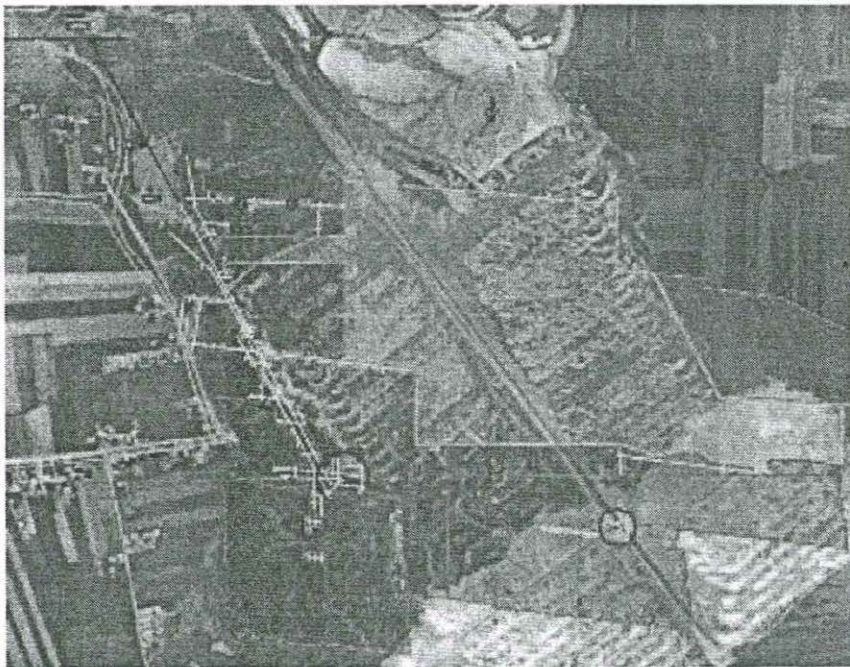
2. Në lidhje me kthimin e hirit nga Deponia e hirit të TC Kosova A në zbrazësin e MS Mirash, ekziston një studim preliminar, i financuar nga Banka Botërore, i cili më pastaj gjatë hulumtimeve më detale nga kompania Vattenfall-Dmt, ka rezultuar si i pa mundshëm për rrethanat ekzistuese. Nga këto hulumtime, si opsioni më i favorshëm është vlerësuar stabilizimi i dhe rekultivimi i deponim, i cili është përkrahur edhe nga vetë menaxhmenti i KEK-ut.

3. Lidhur me stabilitetin e Deponise nuk është punuar ndonjë projekt gjeomekanik, që do ta definoj stabilitetin e shpatit deponues, prandaj me te drejt mund te konstatohet se nuk ka ndonjë analize e cila do te saktësonte kufirin e rrezikut nga rrëshqitja. Nga hulumtimet gjeomekanike të kryera në kuadër të projektit të hirit, i financuar nga Banka Botërore, konfirmohet jo-stabiliteti i shpateve të deponis.
4. KEK posedon hartën topografike-tematike (2007) në shkallë 1 : 25 000 e cila paraqet të gjithë zonën e KEK-ut, përfshirë edhe fshatin Dardhishtë dhe Grabovc.
5. Rreth shpronësimit (eksproprijimi) te pasurive te shtëpive te fshatit Dardhishte (lagja e Gashit) është përdorur si baze informata e datës 18.10.2007 dhe informata zyrtare e datës 20.11.2000 (Këto dy informata janë pjesë shtesë e Raporti profesional). Sipas këtyre informatave, shihet qartë se lagja Gashi është rrezikuar nga rrëshqitjet. Mirëpo këtu ekziston ende një kontest në mes KEK, KK Kastriot dhe KK Fushë Kosove rreth shpronësimit të kësaj lagje.

Kjo lagje konsiderohet mjaftë e rrezikuar fizikisht dhe duhet te këtë prioritet ne zgjidhjen e problemit te tyre.

Për pjesën rreth zhvendosjes se lumit Sitnica, në afërsi te hekurudhës, është bërë pjesërisht eksproprijimi i pasurive. Komisioni mendon se ky shpronësim nuk është bere në bazë të ndonjë norme të caktuar mjedisore, dhe një pjesë është lënë pa u marr ne shqyrtim (jashtë eksproprijimit)..

6. Sa i përket punimeve te vjetra minerare nëntokësore, në kuadër të projektit të Bankës Botërore është paraqitur plani i punimeve nëntokësore, bazuar në të dhënat ekzistuese që kanë qenë në diskonim. Ne këtë raport janë prezantuar punimet e vjetra nëntokësore minerare dhe shtrirja e tyre.



Nga foto më larte vërehet se punime te vjetra nëntokësore shtrihen deri afër vendbanimit të cilat mund të paraqesin rrezik fizik për këtë pjesë. Për fshatin Dardhishtë mund të thuhet se janë dy faktorë me potencial rreziku për sigurinë e një pjese të banorëve:

1. Shembja e galerive nëntokësore, shtrirja e të cilave nuk është krejtësisht e njohur. Nga të dhënat ekzistuese, disa shtëpi (dy-tri) gjenden shumë afër, apo edhe mbi galeritë/tunelet nëntokësore.
2. Rrëshqitja e djerrinës (palosjes) në drejtim të vendbanimit. Sipas vlerësimeve, djerrina ka një ratë të lëvizjes prej afër 1,5 m/vit, dhe atë të shkaktuara kryesisht gjatë sezonit me të reshura atmosferike.

Trendet

Me masat e parapara në kuadër të projektit për mbylljen e deponis, parashihet edhe stabilizimi i këtyre masave. Kjo do të arrihet në afat kohor prej 3-4 vite. Ndërsa sa i përket galerive/tuneleve nëntokësore, kërkohet një program i veçantë hulumtimi rreth gjendjes së tyre (përmasat, shpërndarja, përmasat e kontaminimit, etj.)

Komisioni Profesional duke u bazuar në faktet e lartshënuara propozon që pjesa e punimeve nëntokësore minerare kah vendbanimi i fshatit Dardhishtë të jete i rrethuar me gardh ku i ndalohet qasja e njerëzve, kafshëve etj. Këtë e merr obligim të KEK-u .

8 Evidenca rreth hedhurinave të ndryshme në zbrazëtirat e punimeve të vjetra minerare nëntokësore në lokacionin e fshatit Dardhishtë.

Komisioni profesional rreth këtyre hedhurinave nuk ka materiale dokumentuese para vetes por ka vlerësime, të bëra nga stafi menagjues i Gazifikimit. Sipas atyre të dhënave, gjatë kohës së prodhimit të gazit, si nuss produkte janë prodhuar rreth 2100 tona duke përfshirë së bashku terrin e rende, terrin e mesëm dhe ujërat fenolike. Këto materie janë hedhur në lokacione të ndryshme si : 1) në zgafellet e Dardhishtës dhe Hades, 2) në deponin e Hirit të Kosovës A , 3) në afërsi të objektit të Biologjisë së Tertoresh, por nuk përjashtohen edhe lokacionet tjera të cilat nuk janë evidentuar.

9 Lidhur me zhvendosjen e fundit të lumit Sitnica, në afërsi të hekurudhës pjesa e regjionit të fshatit të Dardhishtës, është hartuar një projekt nga Institutit INKOS në vitin 2008. Me këtë projekt është definuar qartë Trasa e shtratit të lumit në baze të cilit janë kryer punët në teren. Projekti në fjalë përveç hartës së shtrirjes së saj përmban edhe profilet tërthore. Është me rëndësi të ceket se me zhvendosjen e lumit Sitnicë, ujërat e ndotura do të ofrohen një pjesë të vendbanimit. Në këtë aspekt gjendja do të përkeqësohet dhe për këtë arsye banuesit e këtij lokacioni janë mjaftë të shqetësuar.

Sa i përket efluentëve, sipas projektit për pastrim dhe rikultivim (donacion nga Banka Botërore dhe Qeveria Holandeze), të gjitha ujërat sipërfaqësor të zonës së deponis do të drenazhohen dhe do të evitohet kontakti i tyre me hirin dhe ndotësit tjerë në deponi. Kjo do të ndikon që të përmirësohet gjendja sa i përket kualitetit të ujërave sipërfaqësor.

Kuptohet, përveç kësaj, një përmirësim i shtratit të efluentëve përgjatë vendbanimit do të ndikonte edhe në evitim të vërshimeve të cilat po ndodhin në sezonet me të reshura të larta atmosferike.

Ujërat nëntokësor

Gjendja

Sipas disa përshkrimeve ekzistuese ujërat nëntokësor në masën më të madhe tregojnë kontaminim. Ndikim të veçantë në ndotjen e tyre mund të kenë mbetjet e ndryshme kimike, si katran, fenole etj., të cilat gjatë periudhës së prodhimit të gazit janë shkarkuar në deponin e hirit dhe në galeritë nëntokësore. Gjendja e këtyre kontaminuesve në raport me ujërat nëntokësor është jo e qartë. Këtë e bënë edhe më të komplikuar shembja e galerive, të cilat ndikojnë edhe në ndryshimin e gjendjes

origjinale të shtresave të ndryshme litologjike. Me këtë rast edhe ujërat nëntokësor të galerive (ku janë hedhur mbetjet kimike), nën kushte të caktuara, mund të vijnë në kontakt me shtresa permeabile të cilat mundësojnë lëvizjen e tyre nëntokësore.

Trendet

Sikurse ujërat sipërfaqësor edhe ujërat nëntokësor kanë lëvizje nga lindja - juglindja (deponia) në drejtim të perëndimit – veriperëndimit (lumit Sitnicë), zonë mbi të cilën gjenden vendbanimet e Dardhishtës. Nga ky këndvështrim, ujërat nëntokësor të këtij vendbanimi gjenden në një hapësirë me potencial të madhe ndotje. Për këtë arsye, edhe nëse për momentin puse të caktuara nuk tregojnë shenja të ndotjes, përdorimi i tyre nuk është i sigurt dhe do të duhej të evitohet përdorimi i tyre për amvisëri.

Përmes projektit për mbylljen e deponim do të zvogëlohen përmasat e kontaktit të ujërave sipërfaqësor më ata nëntokësor. Megjithatë për njohuri më të thella rreth nivelit dhe llojit të kontaminimit të ujërave nëntokësor dhe shtrirjes së tyre, rekomandohen hulumtime shtesë të kësaj zone.

Me prerjet tërthore të shtratit të ri garantohej siguria ndaj vërshimeve eventuale.

Edhe një here duhet cekur se shtëpitë që janë shumë afër lumit sugjerohet të zhvendosen.

10. Projekti i fundit i hartuar për mihjen e re sipërfaqësore në lokacionin e fshatit Dardhishtë, i njohur me emrin Sitnica i hartuar në vitin 2008. Mendohet se thellimi i mihjeve sipërfaqësore në afërsi të shtratit të lumit, do të ndikon në tharjen e zonës së fshatit Dardhishtë.

11. Te dhënat tjera lidhur me ndotjen e ajrit, tokës dhe ujit, KEK-u ka hartuar raport për vitet 2006 - 07 për mjedisin ku këta parametra janë të përpunuar në shumë detaje dhe kanë shërbyer si baze për grupin profesional të punës.

12. Sa i përket ndikimit të ndotjes në mjedis dhe shëndetin njerëzor, KEK-u, gjegjësisht Medicina e Punës, nuk disponon me të dhëna. Nuk është bërë një studim i tillë deri më tani.

13. Kuvendi Komunal Kastriot në takimin e fundit gjithashtu i ka prezantuar te dhënat e veta që kanë të bëjnë me fshatin Dardhishtë.

- Është dorëzuar harta kadastrale Kastriotit, regjioni i Dardhishtës, ku janë prezantuar pasurit individuale të banuesve të këtij fshati, të cilat për komisionin profesional janë të rëndësishme në mënyrë të veçanët zonat e rrezikuara.
 - KK gjithashtu i ka dorëzuar disa raporte prej të cilave do të veçojmë shtëpitë e planifikuara për zhvendosje nga zonat e rrezikshme, që në evidencën e vjetër janë 19/20 familje Raport i viti 2001/2002
 - Kuvendi Komunal në strategjinë e vet, duke analizuar problematiken e rreziqeve dhe evakuimin e këtyre shtëpive, gjithashtu ka planifikuar hapësirën ku mund të zhvendosen shtëpitë e lartshënuara të cilat janë trajtuar edhe në planin hapësinor.
- Në fshatin Shkabaj është përgatitur një plan rregullativ nga MMPH për fshatin Hade. Meqenëse Komuna e Obiliqit është në fazën përgatitore të planit zhvillimor, do të shqyrtohet mundësia e shfrytëzimit të kësaj hapësire në Shkabaj edhe për banorët tjerë eventuale për banorët tjerë. Komuna po ashtu posedon një plan për evakuim emergjent në raste të fatkeqësive natyrore.

Rekomandimet

Grupi profesional, pas një vlerësimi të bërë dokumentacionit në disponim jep rekomandimet si në vijim:

a) Zgjidhja më e pranueshme dhe logjikshme do të ishte, sikur të ekzistonin mundësit financiare, që i tërë fshati të zhvendoset nga lokacioni i Dardhishtës.

b) Propozohen zgjidhje të mundshme, si për subjektet të cilat do marrin vendime dhe përgjegjësi ashtu edhe për banues të fshatit Dardhishtë, që çështja e këtij vendbanimi të zgjidhet në fazë me dinamik.

1. Palosja e masave të hirit në krahun perëndimor të deponis (në afërsi të fshatit Dardhishtë) të ndërpritet menjëher. Palosja e këtyre masave të vazhdojë të bëhet në pjesën lindore të deponisë sipas projektit të hartuar nga Instituti INKOS, dhe rekomandimeve të Vattenfall-Dmt duke marrë edhe masat shtesë për reduktimin e pluhurit.
2. Zona ku janë të kryera punimet e vjetra nëntokësore, në të cilat edhe janë hedhur mbetje kimike (me përmbajtje kryesisht fenolike) nga zona e Gazifikimit, të vëhet nën rrethoj për të gjitha llojet e gjallesave, ndërsa objektet që gjenden brenda rrethojës të largohen.
3. Të bëhet një studim i sigurisë (gjendja e galerive nëntokësore dhe shtrirja e tyre) dhe kontaminimit të kësaj zone (lloji dhe përmasat e kontaminimit të ujërave dhe taokës).
4. Propozohet që kontesti i pronave të banorëve që kanë jetuar apo jetojnë në afërsi të rrëshqitjes të masave të dheut dhe hirit (ana perëndimore e deponim – 20 familjet e zhvendosura më parë) të zgjidhet sa më parë.
5. Të zhvendosen urgjentisht banuesit e shtëpive nga zona e rrezikut.
6. KEK-u të angazhojë një kompani që të bëjë një analizë gjeomekanike e cila do të definojë zonën e rrezikut të mundshëm prej rrëshqitjes, e cila do të konsiderohej si zonë e rrezikut.
7. Të bëhet sigurimi i mjaftueshëm me ujë të pijes për nevojat e territ fshatit Dardhishtë.

c) Të monitorohet pjesa e shtëpive të cilat gjenden në afërsi të kufirit të minierës së Sitnices (të mbetura jashtë eksproprijimit) dhe nëse efektet e ndotjes janë më të mëdha se ato të lejueshme, të gjendet mënyra për zhvendosjen e mëtejshme të këtyre pjesëve të rrezikuara. Prandaj Komisioni Profesional i sugjeron dy kuvendeve komunale dhe KEK-ut, që kjo të merret në konsideratë dhe ti shikon mundësit për eksproprijim të pjesës së mbetur të lagjes në mes lumit dhe hekurudhës.

Duke i marrë për bazë të gjitha këto që u thanë më sipër, rekomandohet se me prioritet do të ishte monitorimi dhe vlerësimi mjedisor nga Agjensioni Kosovar për Mbrojtjen e Mjedisit (AKMM).

Në aspektin financiar për këto aktivitete rreth fshatit Dardhishtë duhet shikohen mundësit e vet KEK-ut për mbulesë financiare dhe në të kundërtën, në mungesë të mjeteve të KEK-ut, në pajtim me vlerësimin e agjencionit të lartshënuar, duhet shikohen edhe mundësit e Qeverisë së Kosovës apo edhe formave tjera.

Grabovci

Ne pjese perëndimore te mihjeve ekzistuese Bardh Mirash shtrihet fshati Grabovc dhe ne afërsi te minierave gjendet lagja e Berisheve e cila mendohet se është e ndikuar nga aktivitetet minerare te Bardhit dhe Sibovcit. Komisioni Profesional duke i marr për baze te dhënat ekzistuese rreth këtyre ndikimeve ne lagjen Berishë i nxjerr këto konstatime:

1) Ne vendbanimin e Lagjes se Berisheve janë te pranishme ndotjet e mjedisit nga punimet operative minerare. Për shkak te uljeve te nivele te dy mihjeve sipërfaqësore Bardh dhe Sibovc Jug-Perëndimore gjithashtu ka të dhëna se kanë humbur ujërat nga puset e tyre. Nga ana tjetër, meqë transporti i djerrinës behet ne afërsi te lagjes Berishe dhe kohe pas kohe ekskavatorët punojnë ne drejtim te kësaj lagje, është konstatuar se është mjaft e pranishme zhurma dhe ndotja e ajrit. Duke i marr për baze këta faktor te lartshënuar për lagjen Berisha te fshatit Grabovc, komisioni profesional propozon si me poshtë:

1. Për tërë lagjen Berisha duhet të sigurohet urgjentisht furnizimi me ujë të pijes nga ujësjellësi.
2. Në aspektin e ndotjes së mjedisit nga aktivitetet minerare (kryesisht mihje dhe transport) kërkohet të merren të gjitha masat nga KEK-u për zvogëlimin e ndikimit. Kjo indikon para së gjithash në përmirësimin e mirëmbajtjes së pajisjeve të punës.
3. Komisioni propozon qe te behet nje studim për vlerësimin e rrezikut të sigurisë së vendbanimit nga aktivitetet minerare.

Komisioni profesional po ashtu propozon që AKMM të merr nën monitorim këtë lagje dhe në harmoni me indikatorët e treguar, të propozoj masa adekuate.

Grupi punues profesional:

1. Nazim Hoxha, MEM, kryetar
2. Behxhet Shala, KEK, anëtar
3. Nazif Shala, KK Kastriot, anëtar ✓
4. Hasime Qyqalla, KK Kastriot, anëtar
5. Safete Grajqevci, KK F. Kosovë, anëtar
6. Ramë Hamzaj, MMP, anëtar,
7. Besim Dobruna, MMPH, anëtar

Grabovci

Ne pjese perëndimore te mihjeve ekzistuese Bardh Mirash shtrihet fshati Grabovc dhe ne afërsi te minierave gjendet lagjja e Berisheve e cila mendohet se është e ndikuar nga aktivitetet minerare te Bardhit dhe Sibovcit. Komisioni Profesional duke i marr për baze te dhënat ekzistuese rreth këtyre ndikimeve ne lagjen Berishë i nxjerr këto konstatime:

1) Ne vendbanimin e Lagjes se Berisheve janë te pranishme ndotjet e mjedisit nga punimet operative minerare. Për shkak te uljeve te nivele te dy mihjeve sipërfaqësore Bardh dhe Sibovc Jug-Perëndimore gjithashtu ka të dhëna se kanë humbur ujërat nga puset e tyre. Nga ana tjetër, meqë transporti i djerrinës behet ne afërsi te lagjes Berishe dhe kohe pas kohe ekskavatorët punojnë ne drejtim te kësaj lagje, është konstatuar se është mjaft e pranishme zhurma dhe ndotja e ajrit. Duke i marr për baze këta faktor te lartshënuar për lagjen Berisha te fshatit Grabovc, komisioni profesional propozon si me poshtë:

1. Për tërë lagjen Berisha duhet të sigurohet urgjentisht furnizimi me ujë të pijes nga ujësjellësi.
2. Në aspektin e ndotjes së mjedisit nga aktivitetet minerare (kryesisht mihje dhe transport) kërkohet të merren të gjitha masat nga KEK-u për zvogëlimin e ndikimit. Kjo indikon para së gjithash në përmirësimin e mirëmbajtjes së pajisjeve të punës.
3. Komisioni propozon qe te behet nje studim për vlerësimin e rrezikut të sigurisë së vendbanimit nga aktivitetet minerare.

Komisioni profesional po ashtu propozon që AKMM të merr nën monitorim këtë lagje dhe në harmoni me indikatorët e treguar, të propozoj masa adekuate.

Grupi punues profesional:

1. Nazim Hoxha, MEM, kryetar
2. Behxhet Shala, KEK, anëtar
3. Nazif Shala, KK Kastriot, anëtar
4. Hasime Qyqalla, KK Kastriot, anëtar
5. Safete Grajqevci, KK F. Kosovë, anëtar
6. Ramë Hamzaj, MMP, anëtar,
7. Besim Dobruna, MMPH, anëtar

Annex II

**MANAGEMENT RESPONSE TO
REQUEST FOR INSPECTION PANEL REVIEW OF THE
KOSOVO POWER PROJECT (PROPOSED)**

Management has reviewed the Request for Inspection of the Kosovo Power Project (proposed), received by the Inspection Panel on March 29, 2012 and registered on April 12, 2012 (RQ12/01). Management has prepared the following response.

May 21, 2012

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ABBREVIATIONS AND ACRONYMS

BEEPS	Business Environment and Enterprise Survey
BP	Bank Procedure
CEA	Country Environmental Analysis
CPS	Country Partnership Strategy
EAR	European Agency for Reconstruction
EC	European Commission
ECA	Europe and Central Asia Region
ESIA	Environmental and Social Impact Assessment
EU	European Union
FY	Fiscal Year
IDA	International Development Association
IFC	International Finance Corporation
IPN	Inspection Panel
KEK	Kosovo Energy Corporation
KfW	Kreditanstalt für Wiederaufbau
KPP	Kosovo Power Project (proposed)
KRPP	Kosova e Re Power Plant
MW	Megawatt
NMF	New Mining Field
OMS	Operational Manual Statement
OP	Operational Policy
PISG	Provincial Institutions of Self Governance
PM	Particulate matter
PRG	Partial Risk Guarantee
RAP	Resettlement Action Plan
RFP	Request for Proposals
RPF	Resettlement Policy Framework
SESA	Strategic Environmental and Social Assessment
SFDCC	Strategic Framework for Development and Climate Change
TOR	Terms of Reference
UNMIK	United Nations Interim Administration Mission in Kosovo
USAID	United States Agency for International Development
WBIF	Western Balkans Investment Framework

EXECUTIVE SUMMARY

i. On April 12, 2012, the Inspection Panel registered a Request for Inspection (hereafter referred to as “the Request”) concerning the proposed Kosovo Power Project (KPP), for which the Government of Kosovo has requested financing from the International Development Association (IDA).

The Project

ii. ***The proposed Project is currently at the concept stage and major components of project assessment are yet to be completed.*** Management would therefore not be in a position to decide to propose this project for Board consideration for at least another year.

iii. The proposed KPP would aim to help Kosovo secure a reliable supply of energy for the country’s economy and significantly reduce the severe environmental and social impacts of an outdated electricity generation system that relies on the 1960s era “Kosovo A” power plant and the 1970s era “Kosovo B” power plant. To comply with its obligations under the Energy Community Treaty, the Government of Kosovo intends to decommission Kosovo A, which is one of the largest point sources of pollution in Europe, and bring Kosovo B into compliance with EU standards by improving its operations and environmental performance.

iv. The proposed Project would comprise three components: (i) rehabilitation of the existing Kosovo B plant; (ii) construction of a new 600 MW power generation plant (“Kosova e Re Power Project” or “KRPP”) using modern technology that is compliant with the European Union Industrial Emissions Directive;¹ and (iii) development of the lignite mine, Sibovc South, that will supply fuel to the new KRPP, as well as to Kosovo A and Kosovo B for their remaining operational lifetimes.

Kosovo’s Energy Predicament

v. Kosovo’s energy crisis is slowing the country’s economic development. Kosovo is one of Europe’s poorest countries and more than a third of its citizens live below the poverty line. Almost half of its population is unemployed (three out of four people under the age of 25 are unemployed).

vi. A major obstacle to Kosovo’s economic growth and development is inadequate and unreliable electricity, with frequent power outages disrupting manufacturing, education, and health services. Without reliable, affordable electricity, Kosovo’s businesses cannot invest, operate or create jobs.

vii. A number of independent and World Bank-financed analyses have shown that Kosovo’s electricity supply options are constrained by: limited availability of renewable

¹ The proposed KRPP would be required to be built as a carbon-capture and sequestration-ready facility to comply with another relevant EU Directive.

resources, ageing and unreliable power generation plants, supply shortages in the Balkans that limit Kosovo's ability to import electricity, and an absence of any natural gas resources, or pipeline to import gas.

viii. ***The World Bank has examined carefully Kosovo's energy options and the economics of each.*** There is considerable potential for energy efficiency and limited potential for renewable energy and these should be developed in addition to providing the firm baseload capacity Kosovo needs. The analysis finds that the lowest-cost reliable energy supply that would meet Kosovo's baseload and peak demand is a mix of thermal and renewable energy sources (750 MW of renewable energy, replacement of Kosovo A with 600 MW of new power generation, and the rehabilitation of Kosovo B).

ix. An External Expert Panel reviewed the proposed KPP and found it to be consistent with the Bank's Strategic Framework for Development and Climate Change (SFDC). The External Expert Panel suggested some improvements which are being incorporated in the project design.

Request for Inspection

x. Representatives of residents of several communities in the vicinity of the proposed Project, as well as several Kosovar civil society organizations ("the Requesters") filed the Request for Inspection.

xi. The Requesters believe that they would be adversely affected by the proposed Project through the anticipated negative impacts on their communities and the environment. They specifically claim that the proposed Project would result in additional environmental pollution, water shortage, and adverse economic impacts from zoning, resettlement and privatization.

Management's Response

xii. Management notes that much of the harm alleged by the Requesters is unlikely to arise from the proposed Project, but rather is a description of the adverse impacts that currently prevail on the ground. In Management's view the claims of harm presented in the Request for Inspection either relate to: (i) existing and historical conditions on the ground (air, water and land pollution, economic impact from zoning, water usage); (ii) issues that are outside Bank policy and Panel mandate; or (iii) are based on the general assumption that the proposed Project would be carried out in noncompliance with Bank policy leading to direct and serious harm.

xiii. In Management's view, the proposed Project would address many of the adverse environmental and social impacts raised by the Requesters. Management agrees that many of the impacts raised in the Request are indeed severe and have persisted since Kosovo A and Kosovo B began operation. However, without the development of alternative power generation capacity that would enable the decommissioning of Kosovo A and rehabilitation of Kosovo B, Kosovo would remain dependent on the operation of these two power plants, which are responsible for the associated adverse impacts.

xiv. **Management disagrees that the harmful impacts cited in the Request will result from the proposed Project.** The proposed Project is being prepared in line with Bank policies and procedures to avoid and mitigate potential environmental and social adverse impacts.

xv. A critical piece of due diligence that will be undertaken for the proposed Project is a comprehensive Environmental and Social Impact Assessment (ESIA), which will satisfy all requirements of OP 4.01 – Environmental Assessment. Many of the Requesters’ allegations of harm arise from an assumption that a Strategic Environmental and Social Assessment (SESA) that was undertaken in 2008 is the sole document intended to satisfy the requirements of OP 4.01 with respect to environmental and social assessment of the proposed KPP. This is not correct. The 2008 SESA considered issues relating to the development of a 2000 MW power generation plant called “Kosovo C”. Following further consideration and studies, the plant (now called Kosovo e Re Power Plant, or KRPP) has been reduced to 600 MW, for which an ESIA will be prepared in consultation with local communities.

xvi. Furthermore, Management emphasizes that to date the Bank has not yet decided to provide a Partial Risk Guarantee (PRG) for this proposed Project. As is usually the case with guarantees of this type, the World Bank Group (WBG) has provided only a “non-binding, in principle” expression of support for the proposed KPP, with the caveat that WBG support is contingent on the proposed Project complying fully with applicable Bank policies, including environmental, social and fiduciary safeguard policies. It will also need to be consistent with the SFDCC. The Bank’s Country Partnership Strategy (CPS) for FY12-15 also includes support for an Energy Efficiency and Renewable Energy Project (FY13).

xvii. This early step enables the Government of Kosovo to issue its Request for Proposals (RFP) with some indication to potential investors that the World Bank is considering a possible PRG in support of the proposed Project. This, in turn, can lower financing costs and, hence, lower the cost of the proposed Project for Kosovo.

xviii. **However, any involvement by the Bank in providing such support will depend on a series of activities** that include economic, financial, environmental and social assessment of the proposed KPP, other Bank initiated studies (in addition to those already conducted), sharing and discussion of studies with relevant stakeholders, and scrutiny by an independent Panel of Environmental and Social Experts. **The Project would only be submitted to the Bank’s Board if Management is convinced that the studies indicate that the proposed KPP is viable in all its aspects.**

xix. Management is confident that the Bank has made diligent efforts to apply its policies and procedures in the context of the preparation of this proposed Project. Management notes that because the assessment and additional studies have not commenced, substantive application of the Bank policies and procedures could not yet have taken place. Management maintains that the preparatory work completed to date meets the requirements of the Bank’s operational policies and procedures.

xx. In Management's view, the Requesters cannot demonstrate that their rights or interests have been or are likely to be negatively affected by the proposed Project as required by the Panel Resolution. Hence Management questions the eligibility of this Request.

xxi. Notwithstanding concerns regarding the eligibility of this Request for Inspection, Management welcomes this additional opportunity to continue to clarify the issues and questions raised by the Requesters. Management has met and corresponded with the Requesters several times over the past years, disclosed a large number of documents online in English and Albanian, and responded to numerous emails and meeting invitations sent by the Requesters. In addition, more than 50 consultations were carried out with local communities over the past six years. Throughout the concept and preparation stages of the proposed KPP Project, the Bank will continue to provide many opportunities for in-depth discussions with civil society.

xxii. A detailed response to the Requesters' claims is provided in the main text and more technical details can be found in Annex 1.

I. INTRODUCTION

1. On April 12, 2012, the Inspection Panel registered a Request for Inspection, IPN Request RQ 12/01 (hereafter referred to as “the Request”), concerning the Kosovo Power Project (KPP), proposed for financing by the International Development Association (IDA).

2. *Structure of the Text.* The document contains the following sections: The Request (Section II), Project Background (Section III), and the Management Response (Section IV). Annex 1 presents the Requesters’ claims, together with Management’s detailed responses, in table format. Annexes 2 through 7 provide a selected list of meetings with the Civil Society Organizations, publicly available documents related to the proposed Project, Country Partnership Strategy for the Republic of Kosovo FY12-15, and additional key documents mentioned in this Response.

II. THE REQUEST

3. The Request for Inspection was submitted by representatives of the inhabitants of the villages of Dardhishte, Lajthishte/Sibovc, Cerna Vidoca and Hade, of Obiliq Municipality, and the town of Obiliq in Kosovo; the Kosovo Energy Corporation’s independent Kosovo Energy Trade Union; and three Kosovar civil society organizations, namely the Institute for Development Policy (INDEP), Institute of Advanced Studies, and Forum for Civic Initiative (the “Requesters”). Mr. Nezir Sinani of INDEP is the Requesters’ representative in the Inspection Panel process.

4. Attached to the Request are:

- (i) Community Complaint to the Inspection Panel of the World Bank, March 29, 2012
- (ii) Signature page and authorization approval
- (iii) Technical Annex to the Request for Inspection on the Proposed Kosovo Power Project
- (iv) Reevaluating Kosovo’s Least Cost Option
- (v) Expert Panel Compliance with Strategic Framework for Development and Climate Change
- (vi) Costs for work-related accidents (KEK)
- (vii) Work Place Deaths (KEK)
- (viii) MESP Letter and MEM Internal Memo - April and March 2008
- (ix) Letter from ICMM to KEK to undertake measure to protect Dardhishte
- (x) Letter of Municipality of Obiliq to Dardhishte Representative - May 2008
- (xi) Ministry of Environment and Spatial Planning Document stating that Dardhishte should be relocated - April 2008
- (xii) Ministry of Environment and Spatial Planning Decision to form inspection group on Dardhishte - June 2008
- (xiii) Ministry of Environment and Spatial Planning Inspection Group Document recommending relocation of Dardhishte - August 2008

- (xiv) Contact with the World Bank
 - (xv) RAEL Kosovo Energy Scenarios
 - (xvi) Affordable Electricity for Kosovo.
5. No further materials were received by Management in support of the Request.
6. The Request contains claims that the Panel has indicated may constitute violations by the Bank of various provisions of its policies and procedures, including the following:
- OP/BP 4.01, Environmental Assessment
 - OP/BP 4.12, Involuntary Resettlement
 - OP/BP 10.04, Economic Evaluation
 - OMS 2.20, Project Appraisal

III. PROJECT BACKGROUND

7. **Project Objectives.** The proposed KPP aims at securing: (i) reliable energy supply for the Kosovo economy; (ii) energy affordability for citizens and businesses; and (iii) significant reduction of the social and environmental impacts of electricity generation. Key objectives of the proposed KPP, in addition to providing a long-term solution to electricity needs in Kosovo, are to: introduce European Union (EU) standards in the operations of the proposed new power plant (the “Kosova e Re Power Project,” or KRPP) and bring Kosovo B into compliance with EU standards by improving its operations and environmental performance.

8. **Project Components.** The proposed KPP comprises three components: (i) rehabilitation of Kosovo B, (ii) construction of a 600 MW new power generation plant (KRPP) using modern technology, and (iii) development of the lignite mine, Sibovc South, that will supply fuel to KRPP, to Kosovo A until it is decommissioned, and to Kosovo B for its remaining economically useful life, estimated to be until 2030. The Government of Kosovo has taken a progressive decision by requiring that private investors bidding on the proposed KPP ensure that the proposed KRPP is compliant with the new EU Industrial Emissions Directive² that enters into force on January 1, 2016. This Directive is even more stringent than the Large Combustion Plant Directive³ which currently applies to coal-fired power plants in EU member states. The proposed KRPP is also required to be built as a carbon capture and sequestration-ready facility to comply with another relevant EU Directive.⁴

² Directive 2010/75 EC on Industrial Emissions.

³ Directive 2001/80/EC on the limitations of emissions of certain air pollutants into the air from large combustion plants.

⁴ Directive 2009/31/EC on the geological storage of carbon dioxide.

9. Background. By the 1990s, the Kosovo economy had been damaged by poor economic policies, broken external trade and financial links, international sanctions, and a lack of investment in key sectors. It suffered further during the ethnic conflict which ended in 1999. At the end of the conflict, the United Nations Interim Administration Mission in Kosovo (UNMIK), established in pursuance of UN Security Council Resolution 1244, administered Kosovo under interim UN arrangements until February 2008, when Kosovo declared independence. Uncertainty and constraints in establishing a stable system of political governance over nearly a decade made it difficult for UNMIK and the local institutions to take any long-term decisions.

10. ***Energy supply had been identified as a key constraint to economic and social development in Kosovo.*** Reconstruction and rehabilitation of the power system, restructuring of corporate governance and management of the power utility, Kosovo Energy Corporation (KEK), were seen as priority challenges to support the country's development. However, a decade-long dependence on management by the international community, and the absence of empowered local institutions and decision makers, affected development of capacity in Kosovo's institutions, including the power sector.

11. In an environment of prolonged uncertainty and post-conflict reconstruction, the Bank sought to help Kosovo improve institutional capacity and the legal and policy framework, and develop investment programs through a series of technical assistance projects. Between 2001 and 2006, three Energy Sector Technical Assistance Projects⁵ helped develop a long-term strategy, long-term investment program, and technical and institutional capacity for deepening Kosovo's integration in the region. More specifically these projects helped develop: (i) a comprehensive study that formed the basis of an energy strategy and long-term investment programs; (ii) feasibility studies for regional interconnections and a control center to enable power trade with neighbors; (iii) a policy, legal, and institutional framework to attract private sector investment in the energy sector; (iv) technical documents to enable the Kosovo energy sector to deepen its integration in the regional electricity market and comply with its obligations under the Energy Community Treaty; (v) a tariff framework including feed-in tariff for renewable energy resources; and (vi) a mining sector strategy and capacity development. During this period, several donors (CIDA, DFID, European Agency for Reconstruction, Germany, Netherlands, Sweden, USAID) actively supported reconstruction of the Kosovo power sector.

12. Through the Lignite Power Technical Assistance Project (US\$8.5 million, 2006) and Additional Financing (US\$2 million, 2007), the Bank assisted the Government to develop a safeguards framework and a Strategic Environmental and Social Assessment (SESA) for a proposed 2000 MW power generation project called "Kosovo C"⁶ which was intended to serve both domestic energy needs and export to the energy-starved re-

⁵ ESTAP-I in 2001 for US\$2.5 million, ESTAP-II in 2003 for US\$1.5 million and ESTAP-III in 2005 for US\$2.5 million.

⁶ Since 2008, taking into account environmental, social, and financing concerns, a decision was made to reduce the size of the proposed power plant from 2000 to 600 MW to meet only domestic demand. The 600 MW project is now called Kosova e Re Power Project (KRPP).

gional market. The project also had as objectives to assist the Government to increase the capacity of the environmental regulator to monitor and regulate impacts of mining and power generation; develop policies and capacity to promote renewable energy resources, co-generation, and energy efficiency; and engage Transaction Advisors to attract private sector investment in power generation. In addition, through an ongoing Energy Sector Clean-up and Land Reclamation Project,⁷ the Bank (with co-financing from the Government of Netherlands) is financing remediation of the Kosovo A ash dump; reclamation of mining overburden waste dump areas; and treatment and removal of more than 25,000 tons of hazardous chemicals.

13. Demand for energy has been growing rapidly in Kosovo over the past decade, with actual energy consumption and peak demand growing by almost 90 percent between 2000 and 2010 – despite being constrained by supply limitations and consequent frequent load shedding. As seen in many countries, these problems have multiple adverse impacts. First, prolonged electricity load shedding (power cuts) deprives people of light, space heating, refrigeration, and cooking fuel – with obvious implications for their health, access to education, and overall quality of life. Second, there is convincing evidence that Kosovo’s unreliable power supply is a major constraint to business development and, hence, badly needed employment opportunities. In fact, over 90 percent of businesses surveyed in the 2010 Business Environment and Enterprise Performance Survey (BEEPS) cited energy constraints as a major obstacle to business operations and new investment.

14. Kosovo has large lignite reserves – the third largest in Europe. Most of Kosovo’s domestic electricity generation comes from two lignite-fired power plants – Kosovo A and B – with net operating capacity of about 840-900 MW. Additional supply, amounting to 5-17 percent of annual consumption over the past decade, is derived largely from imports of electricity via regional interconnections. The availability of electricity imports for base power is unreliable because it is affected by supply conditions in nearby exporting countries (e.g., hydrological conditions in the region) and by difficulties in political relations with some neighbors. The current situation for electricity generation is also unsatisfactory; both thermal power plants are antiquated and unreliable and operating well below their installed capacity. For example, two of five power generation units at Kosovo A, the oldest and largest plant, are out of operation and the remaining three produce only up to about 350 MW, well below their installed capacity of 610 MW. The Kosovo B plant (net capacity of about 540 MW), though newer (about 25 years old), is affected by damage to the turbine rotors of its two units and deterioration of other critical components, resulting in frequent forced outages. Both plants are also highly polluting. Kosovo A’s high emissions of sulfur and nitrogen oxides and particulate matter (PM) have significant negative health impacts for the population in the vicinity of the plants, which includes the immediately adjacent capital city, Pristina.

15. In this context, the Government, with support from several external partners (the Bank, European Commission, United States), has proposed a multi-pronged strategy to

⁷ FY2006 – US\$5.5 million, FY2007 – US\$5 million, FY2008 – Dutch TF US\$ 4.3 million.

addressing Kosovo's energy crisis and related environmental issues. This approach seeks to: (i) by 2017 close Kosovo A, one of the largest point sources of pollution in Europe, and replace it with a new, state-of-the-art, privately operated 600 MW power plant (KRPP); (ii) attract private investment to rehabilitate and upgrade Kosovo B, including ensuring compliance with EU environmental standards; (iii) privatize electricity distribution to reduce technical and commercial losses; (iv) step up payment enforcement and raise tariffs to levels consistent with full cost recovery; (v) address environmental legacy issues associated with Kosovo A and B; (vi) invest more resources in energy efficiency in the near term; and (vii) increase the use of renewable energy (hydro, solar, wind). Since Kosovo is a signatory to the Energy Community Treaty, two objectives of the strategy, i.e., decommissioning of Kosovo A and bringing Kosovo B into compliance with the EU Directive on Large Combustion Plants, represent legal obligations under the treaty.

16. Implementation of the above strategy is expected to reduce particulate matter (PM) emissions by over 90 percent and sulfur and nitrogen oxides by more than 70 percent over the current levels. In the absence of new capacity to replace Kosovo A, the Government would be forced to recondition and restart the closed units of Kosovo A and continue operation beyond 2017. Alternatively, the reduced capacity would result in increased power cuts that would hurt business and investments, lessen opportunities for employment creation, and adversely affect quality of life, which could result in social and political unrest.

17. Within the framework of its partnership with the Bank, the Government has requested that IDA provide a Partial Risk Guarantee (PRG) for a proposed private sector-financed, coal-fired power generation project, the KPP. The European Commission (EC) has assisted the Government of Kosovo to prepare a study on the decommissioning of Kosovo A and has indicated that it is prepared to partially finance the costs associated with closure of the plant and rehabilitation of the site. The International Finance Corporation (IFC) is providing advisory services to the Government to privatize electricity distribution and supply business in Kosovo. MIGA and IFC are expected to consider financing the proposed KPP if requested by private sector investors.

IV. MANAGEMENT'S RESPONSE

18. Notwithstanding Management's concerns regarding the eligibility of this Request for Inspection, which are set out below, Management welcomes the opportunity to clarify the issues and questions raised by the Requesters. A more detailed response to the Requesters' claims is provided in Annex 1.

19. ***The proposed Project is still at the concept stage and will not be considered by the Bank's Board for at least another year.*** In line with the requirements of the Strategic Framework for Development and Climate Change (SFDCC), an independent External Expert Panel reviewed the proposed KPP and concluded that – subject to certain modifications which are all being addressed in KPP design – the proposed Project is consistent with the six SFDCC criteria for coal projects. The Panel report is available on the Bank's website, along with a number of other analytical reports and documents related to Kosovo.

vo's energy sector. Based on the findings of the External Expert Panel, Management agreed to provide only a "non-binding, in principle" expression of support for the proposed KPP, with the caveat that World Bank Group support would be contingent on the proposed Project complying fully with applicable Bank policies, including environmental, social and fiduciary safeguard policies. The proposed Project also has to be consistent with the SFDCC. This is a very early step which allows the Government of Kosovo to issue its Request for Proposals (RFP) with some indication to potential investors that the World Bank is *considering* a possible PRG in support of the proposed Project – this, in turn, can lower the cost of the proposed Project for Kosovo.

20. Management has initiated a process of assessments, to be conducted in line with Bank policies and procedures, to help prepare the proposed Project. In light of the stage in the Bank's deliberations and the status of the proposed Project, the Request for Inspection has no grounds, as there has been no violation by the Bank of its operational policies and procedures in relation to the proposed Project which has, or is likely to, have a material adverse effect on the Requesters. The Request is based on a description of pre-existing conditions on the ground, and the general and unsupported assumption that the Bank will fail to follow its operational policies and procedures in preparation of the proposed Project.

21. The Requesters cannot demonstrate that their rights or interests have been or are likely to be directly affected by the proposed Project, which is currently at the concept stage. The claims of harm included in the Request for Inspection either relate to: (i) existing and historical conditions on the ground (air, water and land pollution, economic impact from zoning, water usage); (ii) issues that are outside Bank policy and the mandate of the Panel; or (iii) are based on the general assumption that the proposed Project would be carried out in noncompliance with Bank policy leading to direct and serious harm. These claims, however, cannot be credibly supported given the early stage of the proposed Project and Management's efforts to date.

22. Management notes that much of the harm alleged by the Requesters is unlikely to arise from the proposed Project, but rather is a description of the adverse impacts that currently prevail on the ground. In Management's view, the proposed Project would address many of the severe adverse environmental and social impacts that stem from the continued operation of the inefficient and highly polluting thermal power plants Kosovo A and B. Management agrees that many of the impacts raised in the Request are indeed severe and have persisted since the two power plants began operation in 1962 (Kosovo A) and 1983 (Kosovo B). However, without the development of new power generation capacity that would allow decommissioning of Kosovo A and the rehabilitation of Kosovo B, the country would remain dependent on these two power plants, which are responsible for the associated adverse impacts, including negative health impacts from pollution and negative economic impacts from continued load shedding.

23. ***Management disagrees that the harmful impacts cited in the Request will result from the proposed Project.*** If approved by the Government of Kosovo and the Bank's Board, the proposed Project would be prepared in line with Bank policies and procedures and would satisfy all applicable provisions of Bank policy to avoid or mitigate potential

environmental and social adverse impacts. In Management's view, the proposed Project has become a vehicle for raising, and seeking mitigation of, a number of long-standing adverse impacts arising from decades of poor operating practices in mining and power generation further exacerbated by conflict in the region. These impacts, many of which the Project is being designed to mitigate, existed prior to the consideration of the proposed Project.

24. The Request for Inspection in large part is about the Requesters' project design preferences and the technical solution selected for power supply in Kosovo. The Requesters express reservations about the current project design and cite studies that appear to support their position. Management has carefully analyzed these studies and concluded that they are not sufficiently robust and that they neglect or misjudge important factors that Management is required to consider under Bank policies governing project preparation. These analyses have been shared with the respective authors of the studies, disseminated to the public, and are attached as Annexes 6 and 7.

25. A comprehensive Environmental and Social Impact Assessment (ESIA), which will satisfy all requirements of OP 4.01, will be prepared for the proposed KPP. Many of the allegations of harm arise from the Requesters' mistaken assumption that the SESA is the sole document intended to satisfy the requirements of OP 4.01 with respect to environmental and social assessment of the proposed KPP. This is not correct. The SESA to which the Requesters refer was developed in 2008, and considered issues relating to the development of a different power generation plant with a capacity of 2000 MW (Kosovo C). Following further consideration and studies, the proposed Project is now considering 600 MW of new capacity, for which the ESIA will be prepared.

26. Management notes that in the Request for Inspection dated March 29, 2012, the Requesters express dissatisfaction with the Bank's response to their letter dated March 5, 2012, whereas the Bank's response was only sent to them on April 9, 2012. In Management's view, this anticipated dissatisfaction with the response of Management does not demonstrate a serious and credible good faith effort to have the issues in question resolved with Management before going to the Panel, as required by the Panel Resolution. Management has been responsive to the Requesters, by replying to their letters and being available for meetings as documented in the attached chronology of exchanges and meetings (Annex 2). Bank staff in Kosovo and senior officials from Washington, including the Regional Vice President and Country Director, have been available for meetings and met with some of the Requesters and other stakeholders to discuss their concerns.

Specific Issues Raised in the Request

27. ***Environmental Pollution.*** Management is aware of the severe adverse environmental legacy and ongoing environmental concerns associated with the Kosovo A and B power plants, caused by lack of maintenance prior to and during the conflict. There is evidence that the Kosovo A and B power plants and associated operations have caused significant deterioration of the air, soil and water quality in the vicinity of the plants – with likely negative impacts on the health of households living in the area. As discussed above, the Government's energy strategy is expected to achieve significant reduction in

the environmental impacts of the power sector. The ESIA for the proposed Project, to be prepared in the next 12 to 15 months in consultation with the affected communities, will assess the alternatives to the proposed KPP for meeting energy needs as well as investigate and assess the emissions and impacts of the proposed Project. More specifically, the ESIA will analyze in detail: (i) the reduction in impacts due to proposed decommissioning of Kosovo A; (ii) impacts likely to be caused by emissions from the proposed KRPP; (iii) the (reduced) impacts from proposed improvements to Kosovo B; (iv) impacts from the proposed development and operation of the Sibovc South lignite mine; and (v) implications of the proposed KPP for air, soil and water quality and other environmental parameters such as noise levels.

28. **Water Shortage.** This issue will be among the potential impacts to be studied and analyzed in the ESIA for the proposed Project. A number of studies have examined the issue of water availability and competing uses. In 2011, the Bank conducted a study, “Water Security in Central Kosovo,” to identify challenges and means of ensuring adequate supply and quality of water from the Iber-Lepenc canal for households, irrigation, industry and power plant operation in all the municipalities mentioned in the Request, including Pristina and its suburbs. The study concluded that investments are needed to improve maintenance of the Iber-Lepenc canal to avoid excessive leakage, breaching, clogging, and landslides. In response to the findings of the study and suggestions made during several consultations on the forthcoming Country Partnership Strategy (CPS) FY12-15, a planned Water Supply Project is included in the CPS, and the Western Balkans Investment Framework (an EC-financed Trust Fund, administered by the European Bank for Reconstruction and Development) is actively considering grant funds for a feasibility study for maintenance of the Iber-Lepenc canal. This issue would be carefully analyzed in the context of the preparation of the proposed Project.

29. **Economic Impact.** A 2004 Government Decision⁸ did indeed limit the rights of households residing in Hade, Sibovc, Leshkooshiq and Cerna Vodice villages of the Municipality of Kastriot/Obiliq to undertake new construction or expansion. This could have affected the livelihoods of some residents in these villages. The villages in which the limits were imposed are in an area termed the “Zone of Special Economic Interest.” While these restrictions were reconfirmed in 2009, they are believed to have been superseded in October 2011, following adoption by the Assembly of a Spatial Plan for the Zone, also known as the New Mining Field (NMF). The NMF, which covers an area of approximately 150 km², is far larger than the area likely to be affected by the Sibovc South mine (10.5 km²) which would be developed for the proposed KPP. The ESIA will examine impacts of the proposed KPP on the livelihood of residents in the KPP affected area and propose actions to mitigate adverse impacts. In the event that the Bank decides to support the proposed KPP, the Bank will draw Government’s attention to the need to address the legitimate concerns of residents in the non-KPP portion of the NMF area. The Bank decision on whether or not to proceed with a PRG for the proposed KPP will be contingent on a number of issues, including the findings of the ESIA and recommended mitigation actions to satisfy the requirements of Bank environmental and social safeguards policies.

⁸ Government Decision No. 4/119 dated March 11, 2004.

30. **Displacement of Population.** A Resettlement Policy Framework (RPF) has been developed by the Government consistent with Bank policies with financing from the LPTAP and will apply to all resettlement associated with the proposed KPP. Based on the RPF, a Resettlement Action Plan (RAP), also financed through LPTAP, has been prepared for the Shala neighborhood of Hade village, in consultation with the affected communities. The RPF, the existing RAP and any additional RAPs which will be developed for other affected communities based on the RPF, would govern the relocation and resettlement of any population that may be displaced by the proposed Project. The Shala neighborhood of Hade village will be relocated from the Sibovc South mine field since it is close to the edge of the mine from which extraction of lignite has started. The Shala community is proposed to be relocated to a new site (Shkabaj) close to Pristina city where infrastructure and housing plots are already being developed.

31. Management agrees with the Requesters that a number of issues still exist in relation to the resettlement of 2004/5 carried out by UNMIK. Evacuation and resettlement was carried out on an emergency basis to ensure the safety of a number of Hade households which were in danger of sinking due to the risk of landslides (especially during the rainy season) caused by a long legacy of poor mining practices. The emergency evacuation and resulting resettlement were not a part of any Bank-financed project. At the request of the Government, the Bank provided UNMIK and Kosovo's Provisional Institutions of Self Governance (PISG) with technical advice on how best to address the emergency situation on the ground, based on Bank experience and in an attempt to help prevent and rectify any issues. The resettlement is ongoing, and the Government is planning to accommodate the people displaced in 2004 from Hade village at the new resettlement site (Shkabaj). The Bank will provide the Government with technical advice and use its good offices to encourage the Government to engage the resettled households to resolve outstanding issues.

Box 1. Emergency Evacuation of an At-Risk Part of Hade Village in 2004/05

An emergency evacuation of some Hade village residents was carried out by the United Nations Interim Administration Mission in Kosovo (UNMIK) and Provisional Institutions of Self Governance (PISG) in 2004 and 2005 pursuant to UNMIK's order number 2004/6 (March 29, 2004). The order was issued following a major landslide in late 2002 and subsequent completion of a technical evaluation which indicated an imminent threat of land subsidence endangering some inhabitants of Hade village (within the safety zone of the Bardh-Mirash mines). This threat was the result of a long legacy of poor mining practices resulting in unstable mine slopes and the danger of landslides and land subsidence, particularly during the rainy season. A special resettlement committee for Hade was established by UNMIK and the PISG to plan for, and execute, an emergency relocation of at-risk households.

The Hade resettlement committee carried out extensive consultations between March and July 2004 with the affected community and undertook resettlement planning including: (i) preparing an inventory of assets and land survey; (ii) distributing questionnaires on household composition and relocation preferences; (iii) establishing compensation norms and valuation; and (iv) developing resettlement options for the short and the long term. In November 2004 Government approved the property valuation criteria. Between November 2004 and February 2005, over a hundred families which had agreed to move were relocated temporarily to apartments in nearby urban centers with compensation for rent and food. Subsequently (May and June 2005), about 30 families that had refused to move voluntarily were nonetheless forcibly evacuated in light of the coming rainy season and the attendant risk of severe landslides. Most of these families were relocated to pre-identified shelter relocations and their belongings stored in Obiliq Municipality warehouse. At the present time, both groups of families remain in their temporary accommodations. The Government has only recently allocated housing sites near Pristina city where the households could be re-

constituted as a community. Services (water, electricity, access roads etc.) are currently being developed at the site.

The resettlement actions described above were carried out by UNMIK and PISG and were not part of any Bank project. However, in response to a June 2004 request from the PISG to provide urgent advice on the resettlement process, the Bank sent a short two-person mission (July 4-5, 2004) to Kosovo to share the Bank's experience in resettlement, provide policy advice, and assist in preparing terms of reference for resettlement consultants to be recruited by the authorities. The Bank mission recognized the emergency situation and recommended that the Hade resettlement committee simplify its processes, supplement compensation, explore ways to reconstitute the community, improve information dissemination, and conduct a new census. These recommendations constituted an emergency approach in response to the imminent danger of loss of lives and injury, as pointed out in the letter from the Country Director to UNMIK in August 2004. There were no further official missions on this issue. A year later, in June 2005, a pre-identification mission for a proposed Kosovo Lignite Mining and Energy - Social and Environmental Support Project (later folded into LPTAP), *inter alia* undertook a preliminary evaluation of the adequacy of Kosovo's resettlement practices in relation to the Bank's OP/BP4.12. As part of its work, the mission reviewed the experience of Hade resettlement, identifying several deficiencies which it pointed out to the Government. Through its review of Hade resettlement, the mission concluded that the legal, regulatory, and institutional frameworks for resettlement were inadequate, pointing to the need for development of a comprehensive resettlement policy framework. LPTAP supported the development of such a framework which has since been adopted by the Government (July 2011).

32. ***Absence of Transparency and Consultations.*** Management has met with and corresponded with the Requesters several times over the past years, disclosed a large number of documents online, and responded to numerous emails and meeting invitations sent by the Requesters. Consultations were held by the External Expert Panel and dissemination events held in Pristina for the panel reports and the Options Study (see below, paragraph 34). Over the past six years, more than 50 consultations were carried out in preparation of the SESA, RPF and RAP, and summaries of these documents shared in English and local language. For the most recent CPS, several consultations were held during its preparation, the most recent of which was in April 2012 in Pristina. The Government has also disclosed several documents online (key documents are listed at Annex 3).

33. ***Impact on Employment.*** Management recognizes that there may be potential job losses associated with the proposed closure of Kosovo A and privatization of generation and mining operations. At this stage, Government has already undertaken an inventory of KEK employees (over half of whom are over 50 years of age), conducted an initial analysis of likely impacts and proposed specific measures to mitigate potential adverse impacts. These involve requiring the new private operators to retain workers for an initial 3-year period and match terms of service with those provided by KEK, among others. The Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures. Management notes that the overall impact on the Kosovo economy of alleviating the energy constraint is likely to be significantly positive, spurring economic and job growth in the medium term. The long term impact on employment of the proposed KPP is likely to be positive.

34. ***Absence of Studies on Alternative Energy Sources.*** Over the last 10 years, a large number of studies have been carried out on various aspects of the energy sector and the proposed Project by several donors and the Bank. Prior to providing even its "in principle" expression of support, the Bank commissioned a study entitled "Development and Evaluation of Power Supply Options for Kosovo" (December 2011) that took into ac-

count economic, financial and environmental costs—including local and global externalities. **The study concluded that the lowest cost reliable energy supply to meet Kosovo’s base load and peak demand is a mix of thermal and renewable energy sources that includes about 750 MW from hydropower and other renewable sources, rehabilitation of Kosovo B and construction of the 600 MW KRPP.** These findings differ from the findings of the Renewable and Alternative Energy Laboratory (RAEL), Berkeley study cited by the Requesters and another study prepared by the Sierra Club. The Bank team reviewed both these latter studies and does not share their conclusions. Formal comparisons between their findings and those of the Options study can be found in Annexes 6 and 7. These comparisons are also posted on the Bank’s Kosovo Energy website along with the Government of Kosovo’s own assessments of the various analyses.

Conclusion

35. The proposed Project is still at the concept stage and the preparatory work required to assess the proposed Project such as the ESIA and technical, financial, economic, social, and environmental appraisal will be carried out over the next 12 to 15 months. Management emphasizes that the Bank has not taken a decision on the PRG at this time. As is usually the case with guarantees of this type, Management has provided only a “non-binding, in principle” expression of support for the proposed KPP, as noted above in paragraph 19. Any involvement by the Bank in providing such support will depend on a series of activities that include economic, financial, environmental and social assessment of the proposed KPP, other Bank initiated studies (in addition to those already conducted), sharing and discussion of studies with relevant stakeholders, and scrutiny by an independent Panel of Environmental and Social Experts. Only if these activities indicate, in the judgment of Management, that the proposed KPP is viable, will the proposed Project be submitted to the Bank’s Board for its consideration.

36. Management is confident that the Bank has made diligent efforts to apply its policies and procedures in the context of the preparation of this proposed Project. Management notes that the assessment and additional studies have not commenced, and therefore substantive application of the Bank policies and procedures could not have taken place. Management maintains that the preparatory work that has taken place to date meets the requirements of the Bank’s operational policies and procedures. Moreover, in light of the issues raised above, Management is of the view that this Request for Inspection is not eligible.

ANNEX 1
CLAIMS AND RESPONSES

No.	Claim/Issue	Response
Environmental		
1.	<p><i>Environmental pollution</i> KPP is foreseen to be implemented in Obiliq, an area where ‘Kosova A’ and ‘Kosova B’ power plants already operate. Use of lignite for the needs of both existing power plants and technological treatment in this area turned Obiliq and surrounding villages into the most polluted area in Europe. Pollution is comprehensive and also affected agricultural land, surface and ground waters, and air. This area is only 7 km from the Kosovo’s capital, Prishtina. Consequences of burning coal for power generation, directly affects our lives and those of the other 500.000 inhabitants of the capital. Increasing quantity of lignite burned for power generation through power plant “New Kosovo” will make things worse for the inhabitants of Obiliq and surrounding villages, as well as people living in Prishtina. We are facing health issues as a result of releasing various pollutants to the environment, resulting from coal combustion. Release of smoke, sulphide dioxide, iron, zinc, mercury and other pollutants, has direct impact on increasing incidence of cardio-vascular and neural diseases among our communities. Our children are especially vulnerable and their cognitive abilities will be affected from the release of</p>	<p>Management is aware of the severe adverse environmental legacy and ongoing environmental concerns associated with the Kosovo A and B power plants, caused by lack of maintenance prior to and during the conflict. There is evidence that the Kosovo A and B power plants and associated operations have caused significant deterioration of the air, soil and water quality in the vicinity of the plants – with likely negative impacts on the health of households living in the area. Indeed, it is these environmental problems, as well as the problem of persistent energy shortages that led the Government to develop its strategy for the energy sector and related environmental issues and request assistance from the European Commission (EC), USAID, the World Bank Group and bilateral donors such as KfW, Netherlands and Switzerland for its implementation.</p> <p>The Government’s energy strategy has several elements: (i) close Kosovo A by 2017 and replace it with a new, state-of-the-art, privately operated 600 MW power plant termed the “Kosova e Re Power Project” (KRPP); (ii) attract private investment to rehabilitate and upgrade Kosovo B, including ensuring compliance with European Union (EU) environmental standards; (iii) privatize electricity distribution inter alia to reduce technical and commercial losses; (iv) step up payment enforcement and raise tariffs to levels consistent with full cost recovery; (v) address environmental legacy issues associated with Kosovo A and B; (vi) invest more resources in energy efficiency in the near term; and (vii) increase the use of renewable energy (hydro, solar, wind, geothermal). Implementation of the above strategy is expected to be at least carbon neutral, while reducing particulate matter (PM) emissions by over 90 percent and sulfur and nitrogen oxides by over 70 percent from their current levels.</p> <p>The proposed Kosovo Power Project (KPP) is integral to the above strategy and will facilitate the Government of Kosovo’s plan to decommission the antiquated, highly polluting “Kosovo A” power plant.</p> <p>The EC has already undertaken a feasibility</p>

No.	Claim/Issue	Response
	<p>mercury and iron to the environment, while release of hydrogen chloride will affect their lungs.</p>	<p>study on the decommissioning and has indicated that it is prepared to partially finance the costs associated with closure of the plant and rehabilitation of the site. A donors' conference co-hosted by the EC, USAID and the World Bank Group is planned for Fall 2012 with the intention of raising additional funds for the decommissioning, as well as support for renewable energy and efficiency measures beyond those anticipated in the proposed US\$32.5 million Energy Efficiency and Renewable Energy Project included in the Country Partnership Strategy (CPS) for FY12-15.</p> <p>Key objectives of the proposed KPP, in addition to providing a long-term solution to electricity needs in Kosovo, are to: introduce EU standards in the operations of KRPP and bring Kosovo B into compliance with the EU standards by improving its operations and environmental performance. The Government of Kosovo has taken a progressive decision by requiring that private investors bidding on the proposed KPP ensure that the proposed KRPP is compliant with the new EU Industrial Emissions Directive⁹ that enters into force on January 1, 2016. This Directive is even more stringent than the Large Combustion Directive¹⁰ which currently applies to coal-fired power plants in EU member states. The proposed KRPP is also required to be built as a carbon capture and sequestration-ready facility to comply with another relevant EU Directive.¹¹</p> <p>A Strategic Environmental and Social Assessment (SESA) for a potential new power plant was prepared in 2008 under the FY07 Bank-financed Lignite Power Technical Assistance (LPTAP) Project (US\$8.5 m plus Additional Financing of US\$2.0 m). The SESA, reflecting the Government's thinking in 2008, considered issues associated with the possible development of a new plant with a generation capacity of 2000 MW. Such a plant was intended to serve the needs of Kosovo consumers as well as supply electricity to the regional electricity market, which faces large energy and capacity shortages. Since then, Government,</p>

⁹ Directive 2010/75 EC on Industrial Emissions.

¹⁰ Directive 2001/80/EC on the limitations of emissions of certain air pollutants into the air from large combustion plants.

¹¹ Directive 2009/31/EC on the geological storage of carbon dioxide.

No.	Claim/Issue	Response
		<p>in consultation with external partners (including the Bank), decided to reduce the size of the proposed power generation plant to one consistent only with domestic requirements. The proposed KRPP is thus planned for a generation capacity of 600 MW, less than one-third the capacity considered under the SESA.</p> <p>An Environmental and Social Impact Assessment (ESIA) is a key next step being undertaken by the Government. At this stage, draft Terms of Reference (TOR) for the ESIA have been prepared, which will be shared with the public for consultations, after approval by the Government and review by the Bank. The Government expects to hire independent consultants to start the process of ESIA preparation, which is expected to take 12 to 15 months to complete.</p> <p>The ESIA will assess the alternatives to the proposed KPP for meeting energy needs as well as investigate and assess the emissions and impacts of the proposed Project. More specifically, the ESIA will analyze in detail: (i) the reduction in impacts due to proposed decommissioning of Kosovo A; (ii) impacts likely to be caused by emissions from the proposed KRPP; (iii) the (reduced) impacts from proposed improvements to Kosovo B; (iv) impacts from the proposed development and operation of the Sibovc South lignite mine; and (v) implications of the proposed KPP for air, soil and water quality and other environmental parameters such as noise levels. It will also examine any other impacts from the proposed KPP which could, directly or indirectly, impact people and the environment in the proposed Project area.</p> <p>The ESIA will be prepared in consultation with the affected communities and will take into account all relevant aspects of Kosovo's own legislation, applicable policies of the World Bank Group, and relevant EU Directives. The analytical work under the ESIA, and the consultations with stakeholders, including the affected communities and the broader public, on intermediate ESIA results will be important steps to ensure a full discussion between the Government and stakeholders on the potential environmental and social impacts of the proposed KPP. This ongoing engagement and dialogue will also help to ensure that the proposed KPP complies with the requirements of Kosovo legislation, policies of the World Bank Group and the stan-</p>

No.	Claim/Issue	Response
		<p>dards of the EU. The proposed KPP is expected to bring significant and long-term improvements to local environmental conditions. If further opportunities for reducing environmental and social impacts are identified by the ESIA, the ESIA process would provide a strong avenue to integrate such improvements in the final design of the proposed KRPP.</p> <p>An important focus of the ESIA will be to collect environmental, social and other baseline data, based on the specific site characteristics and project technical specifications presented in the Request for Proposals (RFP) for the proposed KPP that was submitted in March 2012 to shortlisted bidders. Mitigation measures applicable to power plants will be developed in line with requirements of Kosovo legislation, EU Directives and the World Bank Group. In addition to informing the decision by the World Bank Group on whether or not to support the proposed KPP, the ESIA would also be used by the selected investor as an input for documentation to be submitted to the relevant authorities in Kosovo for (environmental) permitting purposes.</p>
2.	<p>Water pollution The greatest impact comes as a result of water pollution. Water is polluted from the discharge of lignite ashes, airborne ash and other pollutants from the lignite discharge. Since 60% of the communities living in the polluted area are farmers, our flocks of animals are also affected by pollution, since they use the river and ground waters for their animals. Thus pollution affects the human health as a result of using domestic animal products.</p>	<p>Management is aware that the impacts described here (ash deposits on land and water, discharges from ash disposal sites, etc.) are detrimental to water quality and notes that these are related to the historically poor performance of existing mining, power generation and ash disposal activities. In the absence of adequate environmental controls – such as dust control measures and flue gas treatment – large volumes of ash and other materials have been (and continue to be) released to air, soil and water, affecting people and their livestock. Such emissions will be reduced substantially for the proposed KRPP and a rehabilitated Kosovo B, to levels that would significantly diminish risks of adverse impacts on water quality. More detailed analysis of environmental impacts and the identification of additional control measures (if needed) will be addressed in the ESIA, as described above in Item 1.</p>
3.	<p>Water shortage KPP provides that current supply of power plants in Obiliq and supply to the new power plant is done using the</p>	<p>A number of studies have examined the issues raised by the Requesters regarding water shortages. In 2007, the European Agency for Reconstruction (EAR) funded a study entitled “Water Supply from the Iber-Lepenc Hydro System for the Pro-</p>

No.	Claim/Issue	Response
	<p>Iber Lepenc canal, which supplies water from Iber Lake in the north of Kosovo. The same canal is used for irrigation of agricultural land in three municipalities of Kosovo: Obiliq, Vushtrri and Mitrovica. The same canal supplies water to the Badovc Lake, which supplies Prishtina with potable water. Prishtina and its suburbs constantly face potable water shortage. Increasing use of water from this canal as a result of increasing the generating capacity will necessarily result in water cuts for Prishtina. This may also leave agricultural land with no water resources for irrigation.</p> <p>We need water for our homes and our farms. But if the new plant is built there will be no water for us to use.</p>	<p>posed Kosovo C Power Plant.” At Government’s request, and following findings in the SESA that water supply in the future could be a cause for concern, the Bank also carried out a comprehensive study (Annex 5) in 2010-11 entitled “Water Security in Central Kosovo,” to identify threats to, and means of ensuring, adequate supply and quality of water from the Iber-Lepenc canal for households, irrigation, industry and power plant operation in all the municipalities mentioned in the Request, including Pristina and its suburbs.</p> <p>The Water Security report analyzed capacity to meet both current and projected future demand (including changes in water demand associated with the proposed KPP). It concluded that, in the absence of investment, water shortages are likely to occur in the future, due to: (i) the lack of maintenance and the present risk of malfunctioning or obstruction of the Iber-Lepenc canal (breaching of canal side, excessive leakages, clogging, landslides etc.); (ii) the lack of alternative sources of water supply; and (iii) after 2020, the gradual increase of non-KPP water demand. Such investment should be undertaken to upgrade the canal and its management. Given this analysis, the study recommended specific short- and medium-term investments to address these challenges.</p> <p>The ESIA will undertake an even more focused examination of the impacts of the proposed KPP on water availability and consumption. The consultative process associated with the preparation of the ESIA will enable the local population, as well as other stakeholders, to provide feedback on the scope of coverage, the actual analysis/findings and proposed mitigation actions.</p> <p>In response to suggestions made during several consultations with civil society, including the most recent one for the CPS, the Bank’s CPS FY12-15 for Kosovo includes a Water Supply Project (planned for mid-2014). The project would focus on implementing the recommendations of the study “Water Security in Central Kosovo” and of the ESIA and would also help improve domestic water supply in the proposed KPP project area (see attached CPS – para 81). The Western Balkans Investment Framework (WBIF) is now actively considering a request from the Government of Kosovo to provide grant funds for a feasibility study for rehabilitation of the Iber-Lepenc canal. The</p>

No.	Claim/Issue	Response
		World Bank would supervise implementation of the study.
4.	<p>Economic impact Around 70% of the Obiliq territory since 7 years has been declared a zone of national interest. This is because the area shall be used for lignite mining for the needs of power generation in the country. Upon declaration of the interest zone, local inhabitants of the zone did not enjoy the right of developing their households, and they were not allowed to develop new households in order to advance the social-economical situation of their families. Meanwhile when we were deprived of this right, we were not included in any special project for displacement, in an area where they would exercise such rights. This applies to Hade, Dardhishte and Lajthishte villages of Obiliq. During the deprivation of this right, we have not received any benefits, just like we did not enjoy any compensation for pollution of the water, air and land. We have enjoyed such a right during 70' and 80', but not since 90'. Moreover, we are subject to systematic power cuts and we were never spared by this corporation. This increases the risk of accidents for the population who live in the "backyard" of power plants and existing mines.</p>	<p>Management is not certain as to the definition of "zone of national interest" referred to by the Requesters. However, Management believes this is likely a reference to two Government Decisions: (i) Government Decision No. 4/119 dated 11/3/2004 which declared a Zone of Special Economic Interest covering Hade, Sibovc, Leshkooshiq and Cerna Vodice villages of the Municipality of Kastriot/Obiliq and stipulated that "<i>the Ministry of Environment and Spatial Planning and the Municipal Assembly of Kastriot/Obiliq are obliged to implement the decision by stopping new construction or construction of additional floors;</i>" and (ii) Government Decision No. 02/57 dated 3/13/2009 which declared a "Zone of Special Economic Interest, 'New Mining Field' (NMF)," covering several cadastral zones of the municipalities of Kastriot/Obiliq, Fushe Kosove, Vusshtri and Drenas and reconfirmed Decision No. 4/119 for a period until a Spatial Plan for the Zone was approved by the Kosovo Assembly.</p> <p>In October 2011, the Kosovo Assembly did adopt a Spatial Plan for the Zone of Special Economic Interest "New Mining Field" – Decision No. 04-V-206 – covering an area of about 150 km². This step is believed to effectively supersede Decision 4/119.</p> <p>Delineation of the area covered by the Spatial Development Plan made use of several past studies including two studies—the SESA and the New Mining Field Development Plan (2008) —financed through the LPTAP.</p> <p>It is worth noting that the overall NMF area covered by the Spatial Development Plan is much larger than the area expected to be concessioned in Sibovc South for the proposed KPP-associated minefield. The Sibovc South mine field constitutes about 7 percent (about 10.5 km²) of the total NMF (see attached Map) and the entire KPP site constitutes an additional area of about 6 percent of the NMF.</p> <p>The concession for Sibovc South minefield would provide enough lignite to operate KRPP for forty years, Kosovo A until its decommissioning, and the rehabilitated Kosovo B power plant until the end of its useful life, estimated to be 2030. De-</p>

No.	Claim/Issue	Response
		<p>velopment of the Sibovc South mine field would ultimately require resettlement of four villages, which would be carried out in accordance with the Resettlement Policy Framework (RPF) approved by the Government of Kosovo. The RPF and the RAP for Shala neighborhood of Hade village were prepared with financing from the LPTAP project with the participation of, and in consultation with, the affected communities and other stakeholders.</p> <p>The ESIA, which will apply to the area affected by the proposed KPP, will be undertaken using a methodology that requires extensive consultation with affected stakeholders in gathering salient impact information and identifying appropriate remedies for management of land acquisition impacts.</p> <p>The new Sibovc South minefield for the proposed KPP constitutes about 7 percent of the NMF land area. In the event that the Bank decides to support the proposed KPP, the Bank will ensure that Bank policies and procedures are applied to any resettlement carried out in connection with the proposed KPP and will draw Government's attention to the need to address the legitimate concerns of residents in the non-KPP portion of the NMF area.</p>
5.	<p>Absence of studies on alternative energy sources Kosovo civil society, since months, has requested the World Bank a full analysis of energy potential in Kosovo and an economic analysis on advantages of this potential versus various options. World Bank still does not have a full overview of what Kosovo provides in term of alternative energy sources. Civil society worked closely with the Berkeley University of California to analyze the sector, while this analysis showed that Kosovo has a great potential of alternative sources and this potential is economically viable, serves the purpose of protecting health and environment in</p>	<p>Over the last ten years, a large number of studies have been carried out on various aspects of the energy sector and the proposed Project by several donors and the Bank. The studies funded by the World Bank are available on the Bank's Kosovo energy sector website.</p> <p>As part of its due diligence prior to providing even its "in principle" expression of support, the Bank commissioned a study, entitled "Development and Evaluation of Power Supply Options for Kosovo" (December 2011) to consider ways of meeting Kosovo's energy needs, taking into account economic, financial and environmental costs – including local and global externalities, supply and demand side efficiency improvements, utilization of hydropower potential and other renewable sources, importing of electricity from neighboring countries and thermal generation.</p> <p>The study, which was posted online in English and Albanian and disseminated in Kosovo on February 10, 2012, found that the lowest cost reliable energy supply that would meet Kosovo's base load and peak demand is a mix of thermal and renewa-</p>

No.	Claim/Issue	Response
	<p>Kosovo, and creates 30% more jobs. Failing to have such an analysis and failing to have a Partnership Strategy in Kosovo in effect, World Bank has embarked its engagement in this project in a way which contradicts its policies on such projects and fully contradicts the best work practices held and implemented by the Bank.</p>	<p>ble energy sources. This mix includes: (i) about 750 MW from hydropower and renewable energy resources; and (ii) upgrading of the Kosovo B power plant and replacement of Kosovo A with a new 600 MW coal power plant. These findings differ from the findings of the Renewable and Alternative Energy Laboratory (RAEL), Berkeley study cited by the Requesters and another study prepared by the Sierra Club. The Bank team reviewed both these latter studies and prepared formal comparisons between their findings and those of the Options study (see Annexes 6 and 7). These comparisons are also posted on the Bank's Kosovo Energy website along with the Government of Kosovo's own assessments of the various analyses.</p> <p>An independent External Expert Panel reviewed the proposed KPP and concluded that – subject to certain modifications which are all being addressed in KPP design – the proposed Project meets the six criteria for coal projects of the Strategic Framework for Development and Climate Change.</p> <p>The Expert Panel held consultations with civil society in Pristina at the commencement of its assessment and for dissemination of its findings. The Panel report is available on the Bank's website, along with the Options study and a number of other analytical reports and documents related to Kosovo's energy sector.</p> <p>In accordance with policy, continued involvement by the Bank in providing support to the proposed KPP will depend on a series of activities that will include economic and financial assessments as well as the ESIA for the proposed KPP, sharing and discussion of studies with concerned stakeholders and the public, and review and monitoring by a separate independent Panel of Environmental and Social Experts.</p> <p>The first CPS for Kosovo was recently completed and will be discussed at the Bank's Board on May 29, 2012. The strategy was widely discussed in Kosovo, including several sessions with parliamentarians, the donor community and civil society representatives. A full day session with civil society was held in Pristina and attended by many senior Bank Group officials (including the Regional Vice President) on April 4, 2012. Prior to the preparation of the CPS, the Bank program was guided by an Interim Strategy Note (ISN) for FYs 10 and</p>

No.	Claim/Issue	Response
		<p>11, which included an extensive description of the KPP (as it stood then). The ISN was discussed by the Bank's Board on February 4, 2010, posted on the Bank's Kosovo website and disseminated in Kosovo at workshops with a wide range of stakeholders.</p> <p>Management believes it is important to reiterate that the World Bank has <i>not</i> taken a decision on this PRG at this time. In fact, a decision is about 18 months away, given the need to undertake all the technical, environmental, and social assessments required by Bank policy and to review their findings before a decision can be taken. As is usually the case with guarantees of this type, the World Bank Group has provided only a "non-binding, in principle" expression of support for the proposed KPP, with the caveat that World Bank Group support will be contingent on the proposed Project complying fully with applicable Bank policies and guidelines, including the Strategic Framework for Development and Climate Change, as well as environmental, social and fiduciary safeguard policies. This is a very early step which allows the Government of Kosovo to issue its RFP with some indication to potential investors that the World Bank is <i>considering</i> a possible PRG in support of the proposed Project – this, in turn, can lower financing costs and, hence, lower the cost of the proposed Project for Kosovo.</p>
Social		
6.	<p><i>Displacement of population</i> Since the LPTAP initial implementation stage, KEK started expropriation of Hade inhabitants for KPP. The displacement started without developing any plan of activities for displacement of inhabitants and with no national displacement policy that would be in line with World Bank displacement policies. Thus the displacement was conducted in contradiction with such policy and resulted in unfair and low displacement compensation paid to inhabitants of such villages.</p>	<p>An emergency evacuation of some Hade village residents was carried out by the United Nations Interim Administration Mission in Kosovo (UNMIK) in 2004 and 2005. UNMIK's order number 2004/6 (March 29, 2004) indicates that after technical evaluation determined an immediate threat to the lives of some inhabitants of Hade village close to the lignite mine pit, extensive consultations were carried out by UNMIK and the Provincial Institutions of Self Governance (PISG) with the inhabitants and they were evacuated in between November 2004 and June 2005.</p> <p>The emergency evacuation and resulting resettlement were carried out by UNMIK and PISG and were not part of any Bank project. As explained in the Management Response, the Bank provided technical advice in response to a request from the authorities by sending a short two-person mission</p>

No.	Claim/Issue	Response
	<p>In order to open a new lignite mining field and start construction of the new power plant, the inhabitants living in the same villages should be displaced in order to make way for the KPP. National displacement policies provide that us and our neighbours in Obiliq shall be displaced within the territory of Obiliq. Knowing that around 70% of the Obiliq's territory is of national interest, it means that the displacement shall be done in the remaining part of the territory. This no doubt creates a serious problem to the displacement process, because it hinders the proper displacement required by World Bank displacement policies.</p> <p>Displacement should be performed in line with these policies, while displacement of the population in the future shall no doubt require revision of current displacement policies and each criterion in this regard should be met.</p>	<p>to Kosovo in July 2004. In June 2005, a pre-identification mission for a proposed Kosovo Lignite Mining and Energy - Social and Environmental Support Project (later folded into LPTAP), <i>inter alia</i> undertook a preliminary evaluation of the adequacy of Kosovo's resettlement practices in relation to the Bank's OP/BP4.12. LPTAP supported the development of a resettlement policy framework which has since been adopted by the Government (July 2011). The Government is planning to accommodate the people displaced in 2004 from Hade village at the new resettlement site (Shkabaj). The Bank will continue to provide advice and encourage the Government to resolve any outstanding issues.</p> <p>In view of this unsatisfactory history, and recognizing that any initiative to attract private investors in the power sector would need a clear policy framework for resettlement, the Bank, through the Lignite Power Technical Assistance Project supported the design of an RPF, which conformed to international good practice and would also be consistent with the World Bank policy on resettlement. The RPF helped establish the Government of Kosovo's policies concerning the resettlement of populations. Under the RPF, where displacement or loss of economic assets and means of livelihood are unavoidable, actions are required on the part of the Government to ensure that affected people can improve or at the very least recover their standard of living and livelihood in the shortest possible time.</p> <p>Application of the new RPF was tested in 2011, when the Kosovo Energy Corporation (KEK) began to acquire land in the Shala neighborhood of Hade village. However, this action, using Kosovo's expropriation law, was begun in a manner that was inconsistent with the newly adopted RPF. In this context, the Bank brought concerns about the KEK actions to Government's attention in September 2011, resulting in a halt to the land acquisition until a Resettlement Action Plan (RAP), then under preparation, could be completed in consultation with the affected community. A RAP for Shala has since been completed by the Government. The RAP involved extensive consultations and provides for the entire Shala neighborhood to be relocated at the new site at Shkabaj, as desired by the affected households.</p>

No.	Claim/Issue	Response
		<p>In Management's view the Shkabaj resettlement site is in a good location, close to the main highway to Prishtina. At present, work is being conducted by the Government of Kosovo to prepare the resettlement site, for which housing plots are being developed and provided with services (access roads, water, electricity, etc.). Most of the people moving from Shala have chosen to build their own houses. The Government of Kosovo is committed to provide assistance for lodging and subsistence to those relocating during the interval between leaving Shala and moving into new housing at the resettlement area. The Ministry of Environment and Spatial Planning, as the implementing agency, provides information on implementation progress, through an ongoing consultation process with affected parties and municipal officials.</p> <p>As noted in Item 4, the new Sibovc South minefield for the proposed KPP constitutes only about 7 percent of the NMF land area. In the event that the Bank decides to support the proposed KPP, the Bank will ensure that Bank policies and procedures are applied to any resettlement carried out in connection with the proposed KPP and will draw Government's attention to the need to address the legitimate concerns of residents in the non-KPP portion of the NMF area.</p>
7.	<p>Impact on employment Opening of new lignite mining area and construction of 'New Kosovo' power plant shall be accompanied with permanent decommissioning of "Kosova A" power plant in 2017 and revitalization of "Kosova B" power plant. This will be accompanied with privatization of supply and distribution grid. Combination of these projects will result in dismissing hundreds of current workers of the Energy Corporation. World Bank and the Kosovo Government have never consulted the Union of KEK Workers about the problem, and did not take any other activity to handle the problem.</p>	<p>Management acknowledges the Requesters' concern that there could potentially be job losses related to closure of Kosovo A and privatization of power generation and mining. The Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures.</p> <p>Management would like to share with the Requesters its understanding of the situation as follows below:</p> <p>At the end of 2011, KEK had 1,537 employees in generation (586 in Kosovo A, 432 in Kosovo B and 519 in common services) and 3,241 employees in mining. Of these employees, more than 60 percent of those engaged in generation and more than 50 percent of those employed in mining were over 51 years of age and 15 percent in generation and 10 percent in mining were already older than 61 years.</p>

No.	Claim/Issue	Response
	<p>WB is obliged through best working practices to take specific measures towards workers who are affected by the KPP implementation process. Development of incentive packages to such workers is not seen in the horizon, while WB has failed to include in this project the investments in other areas of power development in Kosovo. Kosovo now loses about 40% of generated and imported power as a result of technical and commercial loses in the grid, while power demand is 30% higher as a result of such loses, and as a result of absence of projects for energy efficiency and proper insulation of houses. Development of specific projects to handle these two problems would result in increasing number of employees, and according to current international trends, the number of jobs in this area is much higher than investment in the new power plant. While not having the Poverty Reduction Strategy for Kosovo, WB has failed in analyzing the needs for economic development of the country, and consequently failed to focus investments in projects that generate more jobs for Kosovans.</p>	<p>KRPP will create direct and indirect employment during its four-year construction period and throughout its long-term operation and maintenance. Typically, construction of a 600 MW coal-fired power plant would generate about 1,200 direct jobs for a period of four years and about 300 skilled jobs during the 35 years of its operational life.</p> <p>An examination of the employment impact (including the impact on current employees) of the proposed KPP will take several factors into account: first, the expected lag before decommissioning of Kosovo A can commence – it is not expected to begin for several years, and once begun, will create technical and non-technical jobs for about two to three years to dismantle the power plant and restore the site; second, the natural attrition rate of KEK’s workforce—this has been high due to the high average age of employees; third, the new jobs that will be created as construction begins on KRPP -- the expected start date of construction of the new plant is late 2013 or early 2014.</p> <p>Management also understands from the Government that the new private companies involved in mining and power generation will be required to retain all staff (who wish to continue to work) for a period of at least three years, on terms and conditions of employment substantially similar to those offered by KEK. After this three-year period, if the new company needs to make changes to its staffing, it will have to follow the applicable Kosovo labor laws.</p> <p>On a broader scale, Management notes the impediments to job creation created by the current power shortage in Kosovo. Nine out of ten firms surveyed in the 2010 Business Environment and Enterprise Survey (BEEPS) cited lack of reliable electricity supply as one of the major obstacles to investment. Improving power supply and services should facilitate investments by small business that would create jobs in Kosovo. Other obstacles to doing business are being addressed by the Bank through an ongoing Business Enterprise Technical Assistance operation and by the International Finance Corporation (IFC) through focused advisory services. In addition, the Bank, through the Sustainable Employment Development Policy Operations project, is helping to lay the institutional and legislative foundations for sustainable em-</p>

No.	Claim/Issue	Response
		ployment and social safety nets.
Access to Information		
8.	<p><i>Absence of transparency and consultations</i></p> <p>Since the engagement of the World Bank in power projects in the country, Obiliq community, Union of KEK Workers and civil society have been excluded from the decision-making processes. Requests of the civil society for access to official documents, which is provided by the national legislation, have been constantly turned down by the Ministry of Economic Development, project leading agency, and also by the World Bank almost in all cases. Thus absence of authentic information and absence of access to official documents has deprived us the right to get involved in these projects. This is in contradiction with the World Bank policies on the right of information and data disclosure.</p> <p>Through the present complaint, we would like to refer once again to all requests filed to the World Bank and the Ministry of Economic Development, for access to information regarding LPTAP and KPP. Such requests were submitted mainly by Mr. Nezir Sinani on behalf of civil society, and the community of Obiliq and surrounding villages.</p>	<p>Management has met with and corresponded with the Requester(s) dozens of times over the past years. Management and the Government have disclosed at least three dozen documents online, most of them in English and Albanian. Management has repeatedly acknowledged in public settings the valuable role that civil society in Kosovo has played in shaping the proposed CPS and in analyzing the energy options in Kosovo. Management does not agree that there has been an absence of authentic information available to the public. On the contrary, Management feels it has made an abundance of information available and has responded to the numerous emails and meeting invitations sent by the Requester(s).</p> <p>Over the past six years, more than 50 consultations with members of the community were carried out during the preparation of the SESA, RPF, and the RAP for Shala neighborhood of Hade village. In fact, consultations in Kosovo have been ongoing since 2005. In October 2007, community meetings were held with nine villages in the mine development area; more than 50 consultations were carried out in 2008 in which more than 900 people participated, including 10 separate meetings with women in which more than 100 women participated.</p> <p>In the course of preparing the RAP for Shala, meetings were held during the planning phase between June and July 2011 and again for consultation on the draft RAP in August 2011. Summaries of the draft RAP in English and Albanian were shared with all affected households. Affected people from Shala also have access to the resettlement office at Hade.</p> <p>In addition, regular and extensive consultations have been held with civil society on the studies and assessments carried out in the energy sector, and in particular in the context of the proposed KPP, hosted by the Government of Kosovo and the World Bank in Obiliq and Prishtina. A list of public events is included in Annex 2.</p> <p>As mentioned, over the course of several years the Bank and the Government have disclosed a number of analyses about Kosovo's development challenges and, specifically, about its energy chal-</p>

No.	Claim/Issue	Response
		<p>allenges and options. A list of publicly available documents is also included as Annex 3.</p> <p>The TOR of the independent External Expert Panel and a number of background documents and the biographies of the three panelists were posted online when the Panel was appointed. In August 2011 and in February 2012, the independent Expert Panel reviewing the proposed KPP met with civil society to discuss its process and findings with citizens and the news media. The Expert Panel considered the public feedback in determining their findings and noted specifically in the final report that the Panel “strongly encourages the involvement of civil society in the various processes whenever this is possible through openness and transparency and fully developed consultation processes.”</p> <p>Management has facilitated numerous consultations and meetings and will continue to do so. For example, the proposed CPS scheduled to be presented to the Board of Executive Directors in late-May 2012 recently underwent a 9-hour public consultation in Pristina, attended by the Regional Vice President, Country Director, and Country Manager. Feedback was sought on a variety of topics, including the proposed KPP.</p> <p>Management will continue to disclose all documents related to the Bank’s proposed support to Kosovo’s energy sector, in line with the Access to Information Policy. In fact, the Bank has received a series of letters with questions that appear in the Request for Inspection, to which replies have been sent. Management has repeatedly pointed out that the Bank’s consideration of the proposed KPP is only in the beginning stages and that the ESIA and other studies will take at least a year. The Bank is committed to ensuring that civil society is involved throughout and the Bank team has had frequent interactions with some of the Requesters.</p> <p>Regarding documents that have been requested but not provided by the World Bank: some of the documents that have been requested do not exist yet and Management has informed the Requesters in writing and in face-to-face meetings that <i>as soon as those documents are available they will be disclosed</i>. For example, the Energy Efficiency and Renewable Energy Project is in very early stages of development. There is no Project Information Document to be disclosed yet.</p>

No.	Claim/Issue	Response
		<p>The proposed CPS mentions a few projects that are in the earliest stages of concept and no documents have been prepared yet.</p> <p>Another document requested for disclosure is the Country Environmental Analysis (CEA). Management has informed the Requesters in writing and in face-to-face meetings that this document is in preparation and will be disclosed in early June 2012 at the time of the planned public consultations on the CEA and dissemination of the study on water security in central Kosovo.</p>

**ANNEX 2. SELECTED LIST OF MEETINGS WITH
CIVIL SOCIETY ORGANIZATIONS REGARDING KOSOVO'S ENERGY SECTOR**

Date	Organizer	Location	Topic	CSO Participants	World Bank Participants
April 4, 2012	World Bank	WB office Pristina	Consultations on the proposed CPS	Balkan Investigative Reporting Network, GAP Institute, Forum for Civic Initiative, Institute for Development Policy (INDEP), Democracy 4 Development, Kosovo American Chamber of Commerce, Kosovo Stability Initiative, KIPRED, Cohu, Group for Legal and Political Studies, Women Network, Kosovo Center for Gender Studies, Community Development Fund, Kosovo Civil Society Fund, Independent Union of Energy Workers of Kosovo, United Union of Education, Science and Culture, Kosovo Bankers' Association, Booz Allen Hamilton	Vice President for Europe and Central Asia Region (ECA) ECA Senior Advisor Country Director for Southeast Europe Sector Coordinator for Energy Country Manager for Kosovo ECA Communications Officer Country Office Operations Officer Country Office Communications Officer Country Office Operations Officer Country Office Operations Analyst Country Office Operations Officer
March 14, 2012	World Bank	WB office Pristina	Meeting with representatives from Obiliq community who sent a letter to CD	Obiliq community representatives, BIRN and INDEP representatives	Country Director for Southeast Europe Sector Coordinator for Energy Country Manager for Kosovo Country Office Communications Officer Country Office Operations Officer
Feb. 16, 2012	Group of CSOs	Hotel Sirius	Workshop: Energy Alternatives for Kosovo	Local CSOs: INDEP, BIRN, GAP, FIQ, PIPS, ICG, SPEK International CSOs: BIC, Bankwatch, WWF, Sierra Club, CIEL, ECF, RBF	Country Manager for Kosovo Country Office Communications Officer
Feb. 14, 2012	Gov. of Kosovo – Ministry of Econ. Devel.	Gov. Building	Presentation of the independent Expert Panel report	CSOs: INDEP, Forum for Civic Initiatives, Rockefeller Brothers Fund, Kosovo Fund for Open Society, Regional Environmental Center Kosovo, GAP Institute, IKSHPK. Other: Ministry of Economic Development, Member of Parliament from Vetevendosje, US Embassy, USAID, KfW, Triangle,	Members of the independent Expert Panel: [By audioconference] Dr. János Beér, Emeritus Professor of Chemical Engineering at the Massachusetts Institute of Technology Dr. Wladyslaw Mielczarski, Professor of Electric Power Engineering at the Technical University of Lodz, Poland, and Head of the Electricity Market Research Group at Poland's Institute of Electrical Power Engineering Derek M. Taylor, President of DMT Energy Consulting, European regional representative for the Global Carbon

Date	Organizer	Location	Topic	CSO Participants	World Bank Participants
				DHInfrastructure Media: RTV21, Kosova Sot, Koha Ditore, Kosovapress, Express	Capture and Storage Institute (GCCSI), and Director of the environmental NGO Bellona ECA Sector Director, SDN Senior Technical Advisor, OPCS Sector Coordinator for Energy Country Office Operations Officer Country Manager for Kosovo Country Office Communications Officer
Feb. 10, 2012	World Bank	Hotel Sirius	Presentation in front of CSOs of the Paper: Development and Evaluation of the Power Supply Options for Kosovo	CSOs: INDEP, INPO, BIRN, Regional Environmental Center, GAP, FIQ, KFOS, RIINVEST, IKS, STRAS, University of Pristina, American University in Kosovo Other: Ministry of Economic Development, Ministry of Trade and Industry, US Embassy, USAID, German Embassy, KEDS, KOSTT, Triangle Media: RTK, Koha Ditore, Bota Sot, Epoka e Re, Express, Dukagjini, KTV, Kosova Sot, Alsat, Kosovapress, TV21, Tribuna Shqiptare, Top Channel	Consultant authors of the analysis ECA Sector Director, SDN Senior Technical Advisor, OPCS Sector Coordinator for Energy Country Office Operations Officer Country Manager for Kosovo Country Office Communications Officer
Nov. 9, 2011	World Bank	Hotel Pristina	Meeting with CSOs on the Kosovo energy sector	CSOs: KIPRED, INDEP, BIRN, Kosovo Democratic Institute / Transparency International Kosovo, Kosovo Fund for Open Society, RIINVEST Institute, Regional Environmental Center Kosovo, Youth Initiative for Human Rights, International Crisis Group, Kosovo Stability Initiative, INPO, MAR.	Country Director for Southeast Europe Country Manager for Kosovo Country Office Communications Officer Country Office Operations Officer

Date	Organizer	Location	Topic	CSO Participants	World Bank Participants
				Other: USAID, IFC	
Nov. 9, 2011	World Bank	WB office, Pristina	Meeting with the CSOs on the new CPS	Kosovo Civil Society Foundation, Community Development Fund, Democracy 4 Development, Developing Together	Country Director for Southeast Europe Sector Coordinator for Energy Country Manager for Kosovo Country Office Communications Officer Country Office Operations Officer Country Office Operations Officer Country Office Operations Analyst
Sept. 29, 2011	Gov. of Kosovo – Ministry of Econ. Devel.	Hotel Pristina	Energy issues and Civil Society concerns in the “Energy Projects Report in Kosovo”	Ministry of Economic Development, USAID, KfW, International Civilian Office, Kosovo Energy Corporation, KOSTT, ERO, RIINVEST Institute	Investment Advisors, IFC Country Office Operations Officer Country Office Operations Analyst
August 26, 2011	World Bank (and the External Expert Panel)	WB office Pristina	The proposed New Kosovo project and the “Development and Climate Change: A Strategic Framework for the World Bank Group”	Director of KIPRED, Director of GAP Institute, Researchers from RIINVEST Institute	Chair of the independent Expert Panel, Derek Taylor Sector Coordinator for Energy [Former] Country Manager for Kosovo [Current] Country Manager for Kosovo Country Office Operations Officer Country Office Operations Analyst
April 21, 2011	World Bank	Filikaqa Restaurant (opposite WB CO)	New Kosovo power plant project	Regional Rep. of Rockefeller Brothers Fund, Director of KIPRED and Director of GAP Institute	World Bank Task Team Leader for LPTAP Country Office Operations Officer Country Office Operations Analyst
March, 10, 2011	World Bank	Pristina	Meeting with CSOs on the SEDPO budget support operation (<i>although it was not planned, the support for the energy sector was also discussed</i>)	Director of KIPRED, Director of IKS, Director of RIINVEST Institute, Director of KFOS, Director of GAP Institute	Country Director Country Manager Country Office Communications Officer)
January 13, 2011	World Bank and Open Society Institute	Brussels	Inform Open Society Institute on the New Kosovo project, but also on other development issues in Kosovo.	OSI Director and OSI Senior Policy Analyst	Energy Sector Country Coordinator Country Manager

Date	Organizer	Location	Topic	CSO Participants	World Bank Participants
March 16, 2010	World Bank	Hotel Pristina, Pristina	Interim Strategy Note FY10-11 for Kosovo (The energy sector section of the ISN was also discussed in this meeting with civil society and donors, 15 of them)		Consultant, Country Management Unit Country Manager Country Office Communications Officer Country Office Operations Officer
July 2009	World Bank	Office of Kosovo Foundation for Open Society, Pristina	LPTAP project	Director of KFOS	World Bank Task Team Leader for LPTAP
March 18, 2009,	Foreign Policy Club	National and University Library of Kosovo	LPTAP project – a presentation to civil society (<i>under Chatham House rules</i>)	Board Chairman and CEO of Foreign Policy Club, other invitees of the FPC Media: Koha Ditore	Country Manager, World Bank Country Office Energy Sector Country Coordinator World Bank Task Team Leader for LPTAP Country Office Communications Officer
Sept. 11, 2008	Ministry of Energy and Mines	Cultural Hall, Kastriot (Obiliq)	Public Hearing on SESA		Senior Environmental Specialist Country Office Communications Officer
June 2008	World Bank	World Bank office Pristina	Discussions on LPTAP	(former) CEO of the Youth Initiative for Human Rights and CEO of the anti-corruption NGO 'Cohu' (separate meetings)	Country Office Communications Officer Senior Communications Officer, World Bank Headquarters

**ANNEX 3. LIST OF PUBLICLY AVAILABLE DOCUMENTS REGARDING THE
PROPOSED KOSOVO POWER PROJECT**

Key documents available on the World Bank's Kosovo Country Office website

<http://www.worldbank.org/kosovo>

1. Energy Strategy of the Republic of Kosovo (2009-2018), September 2009.
2. Technical Background Paper Energy Sector for the Donors Conference, 2008.
3. Strategic Environmental and Social Assessment, ERM Italia, 2008.
4. Regional Balkans Infrastructure Study—Electricity (REBIS) and Generation Investment Study (GIS), prepared by PwC Consortium (PricewaterhouseCoopers LLP, Atkins International plc, MWH), 31 December 2004, updated 2007.
5. Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 5.8 million (US\$ 8.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for a Lignite Power Technical Assistance Project, World Bank, September 2006.
6. Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 3.8 million (US\$ 5.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for an Energy Sector Clean-up and Land Reclamation Project, World Bank, May 2006.
7. Studies to support the development of new generation capacities and related transmission—Kosovo UNMIK, prepared by Pöyry Consortium (Pöyry, Cesi, Terna, and Decon), August 2007.
8. Study for Decommissioning of Kosovo-A Power Plant, Final Report, prepared by Evonik Industries, 15 March 2010.
9. Economic and Technical Feasibility of the Rehabilitation of Units of Kosovo A Power Plant, European Agency for Reconstruction Contract 04KOS01/03/007, prepared by A3i Consortium (Application Européenne de Technologie et de Services, AEA Technology plc, Allplan, Iberdrola S.A.), Task Report, September 2005.
10. Scoping Statement for Environmental Assessment for Rehabilitation of Thermal Power Plant Kosovo B, Final Report, prepared by Advanced Engineering Associates International et al, 6 April 2010.
11. Kosova “B” Investment Requirements and Rehabilitation Feasibility Study, prepared by PA Government Services for USAID, August 2010.
12. Improvement of District Heating in Kosovo, KfW. February, 2009.
13. Generation Sizing in View of the Technical and Commercial Requirements of the Kosovo Power System, prepared by KOSTT, February 2010.
14. Generation Planning and Unit Sizing, prepared by Parsons Brinckerhoff and PricewaterhouseCoopers, March 2010, and Unit Sizing, prepared by Parsons Brinckerhoff and PricewaterhouseCoopers, April 2010.
15. MEM Report on Energy Efficiency. November 2006.
16. Prefeasibility Study for Identification of Small Hydro Power Plant in Kosovo. Albanian Association of Energy and Environment for Sustainable Development. May 2006.
17. Energy Regulatory Office. Kosovo. Annual Report 2009.
18. Energy Sector Technical Assistance Project I Study. World Bank Group. September 2002.
19. Kosovo Energy Sector PER. December 2009.
20. Kosovo Lignite Power Initiative – Economic Analysis. 2006.
21. Feasibility study of converting Kosovo B into combined heat and power plant, KfW (report expected in June 2011)
22. Development and Evaluation of Power Supply Options for Kosovo (December 2011)
23. Report of the SFDC External Expert Panel (January 2012)
24. Comparative Evaluation of the Bank's Option Study with RAEL Report
25. Comparative Evaluation of the Bank's Option Study with Sierra Club Report

Available from Ministry of Economic Development (<http://mem.rks-gov.net/>):

26. Annual Energy Balance of Republic of Kosovo, 2010
27. Heating Strategy of Republic of Kosovo, 2011 – 2018
28. Energy Strategy of Republic of Kosovo, 2009-2018
29. Resettlement Policy Framework
30. Resettlement Action Plan – Shala Neighborhood/ Hade
31. Report on the assessment of losses to the private sector due to an irregular electricity supply, KAF financial group, May 2007
32. Zhur studies and announcements
33. The request form for access to official documents
34. KEK's Audit Reports and Financial Statement – from the department of policy and monitoring unit of Public Enterprises
35. Energy Community Treaty documents
36. The entire Legislation of the energy and mining sector (all the relevant laws for these two sectors), including the secondary legislation (administrative instructions, regulations)
37. A link to the “Kosovo e Re” power project - lignitepower.com in the homepage of the Ministry

Available on the LPTAP website (<http://lignitepower.com>):

1. Resettlement Action Plan - Shala Neighbourhood, 2011
2. Resettlement Policy Framework
3. SESA full report and SESA brochure
4. Brochure on the Project in General
5. Prequalification memorandum
6. 10 PowerPoint presentations prepared for the International Investors Conference, January 2010
7. Prefeasibility study for pollution mitigation measures at Kosovo B power plant, EAR, February 2006
8. Prefeasibility study for the new lignite fired power plant, EAR, February 2006
9. Studies to support the development of new generation capacities and related transmission: Kosovo UNMIK Power Market Review Report November 2007; European Agency for Reconstruction Pöyry-CESI-Terna-Decon Generation Technical Studies Task 1, 2, 3, 4, 5, 6 – Poyry
10. Main Mining Plan for New Sibovc Mine, EAR, Vattenfall, DMT, 2005
11. Complementary Mining Plan for Sibovc SW, STEAG, April 2006
12. Water Supply from the Iber Lepenc Hydro System for the proposed Kosova e Re power plant, Evaluation of Hydro System and Water Availability Assessment, November 2007, EAR – COWI report
13. Various maps of locations near power plant and geological map
14. World Bank-funded Zhur Hydropower Project Feasibility Study, May 2009
15. Map of Sibovc Mining area showing the entire Sibovc field
16. Project Appraisal Document of LPTAP, September 2006
17. LPTAP Operational Manual as approved by the PSC, March 2007
18. LPTAP Code of Behavior and Code of Ethics
19. Announcement of Requests for Expressions of Interest for developing Sibovc and associated power generation capacities.
20. Prequalification Memorandum, December 2009
21. TPP Kosova B Site Layout and TPP Kosova A Site Layout (maps)

ANNEX 4. COUNTRY PARTNERSHIP STRATEGY FOR THE REPUBLIC OF KOSOVO FY12-15

**Document of
The World Bank**

FOR OFFICIAL USE ONLY

Report No. 66877-XK

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL FINANCE CORPORATION

AND

MULTILATERAL INVESTMENT GUARANTEE AGENCY

COUNTRY PARTNERSHIP STRATEGY

FOR

THE REPUBLIC OF KOSOVO

FOR THE PERIOD FY12–FY15

May 1, 2012

**South East Europe Country Unit
Europe and Central Asia**

**Europe and Central Asia
International Finance Corporation**

This document is being made publicly available prior to the Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank's Policy on Access to Information.

CURRENCY EQUIVALENTS
(Exchange Rate Effective April 16, 2012)
Currency Unit = Euro (€)
€1.00=US\$1.30
SDR 1.00=US\$1.54

GOVERNMENT'S FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AAA	Analytical and advisory activities
ARDP	Agriculture and Rural Development Plan
BEEPS	Business Environment and Enterprise Performance Survey
CBK	Central Bank of the Republic of Kosovo
CEFTA	Central European Free Trade Agreement
CEM	Country Economic Memorandum
CPS	Country Partnership Strategy
DPO	Development Policy Operation
EC	European Commission
ECA	Europe and Central Asia Region
EIB	European Investment Bank
EPAP	European Partnership Action Plan
ESW	Economic and sector work
EU	European Union
EULEX	EU Rule of Law Mission in Kosovo
EUSR	EU Special Representative
FDI	Foreign direct investment
FY	Fiscal year
GDP	Gross domestic product
GOK	Government of the Republic of Kosovo
IBRD	International Bank for Reconstruction and Development
ICR	International Civilian Office
IFC	International Finance Corporation
IFI	International financial institution
IMF	International Monetary Fund
IPARD	Instrument for Pre-Accession for Rural Development
ISG	International Steering Group for Kosovo
ISN	Interim Strategy Note
KEDS	Kosovo Electricity Distribution and Supply
KEK	Public Electricity Company
KEP	Kosovo Enterprise Program
KES	Kosovo Environment Strategy
KFOR	Kosovo Force
KRPP	Kosova e Re Power Plant
MDGs	Millennium Development Goals
MESP	Ministry of Environment and Spatial Planning
MSMEs	Micro, small, and medium-sized enterprises

LITS	Life in Transition Survey
MDRI	Multilateral Debt Relief Initiative
MIGA	Multilateral Investment Guarantee Agency
MIP	Mitrovica Industrial Park
MTEF	Medium-Term Expenditure Framework
MW	Megawatt
NEAP	National Environment Action Plan
OECD	Organisation for Economic Co-operation and Development
PCH	Pro Credit Holding
PIU	Project Implementation Unit
PM	Particulate matter
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnerships
PRG	Partial Risk Guarantee
PSD	Private Sector Development
PTK	Kosovo Post and Telecommunications Company
QA	Quality assurance
R&D	Research and development
ROSC	Report on the Observance of Standards and Codes
SAP	Stabilization and Association Process
SBA	Stand-By Arrangement
SEDPP	Sustainable Employment Development Policy Program
SEE	South East Europe
SME	Small and medium-sized enterprises
SMP	Staff-Monitored Program
SOK	Statistical Office of Kosovo
SPF	State and Peace-Building Fund
STM	Stability Tracking Mechanism
TA	Technical assistance
TBD	To be determined
TF	Trust fund
UNDP	United Nations Development Programme
WBI	World Bank Institute
WBIF	Western Balkans Investment Framework
y-o-y	Year-on-year

	World Bank	IFC	MIGA
Vice President	Philippe Le Houérou	Dimitris Tsitsiragos	Michel Wormser
Country Director	Jane Armitage	Tomasz Telma	Ravi Vish
Task Team Leaders	Jan-Peter Olters Neeta Sirur	Gjergj Konda Elira Sakiqi Per Kjellerhaug	Frank Linden

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EXECUTIVE SUMMARY

- i. **This Country Partnership Strategy (CPS) for FY12-15 is the first to be prepared since Kosovo declared independence in February 2008 and became a member of the World Bank Group (WBG) in mid-2009.** The CPS follows a series of Interim Strategy Notes (ISNs) implemented over the last decade and is closely aligned with the national development priorities set by the Government.
- ii. **With high and persistent rates of poverty and unemployment (particularly among youth and women), the central development challenge confronting Kosovo today concerns how to forge an economic growth path that sustainably creates more opportunity and high-quality jobs for its growing, youthful population.** Kosovo's growth model has thus far been based largely on public investment and the availability of external sources of financing—especially donor assistance and remittances. This model is likely to be unsustainable for the longer term, implying the need for a viable alternative approach. Private-sector investment, which has begun to emerge, is the most promising avenue for generating accelerated growth and jobs in the future but is affected critically by infrastructure bottlenecks, especially persistent shortages of energy. Besides acting as a brake on business growth, frequent load shedding (power cuts) deprives people of light, space heating, refrigeration and cooking fuel—with obvious implications for health, education, and the overall quality of life. Addressing the energy crisis in a comprehensive way is thus a critical component of Government's strategy for creating a hospitable climate for investment, jobs, and better living standards.
- iii. **Taking into account both the limited IDA resources available and Kosovo's implementation constraints, the proposed new lending program is highly selective.** The aim is to support fewer, larger operations in sectors/sub-sectors where the WBG has a comparative advantage by virtue of previous experience and analytical work in Kosovo and synergies between IDA, IFC and MIGA. The choice of operations included in the CPS program takes into account Government ownership of the agenda and alignment with the country's overarching goal of closer integration with the EU.
- iv. **The main objectives of the CPS are to support Kosovo to (i) accelerate broad-based economic growth and employment generation; and (ii) improve environmental management.** The goal of accelerating growth and employment creation is a continuation of the priorities established in previous interim strategies, which emphasized the need to promote growth via targeted attention to macro-stability, infrastructure development (especially energy), an improved business environment, better governance and investments in agriculture and human capital. The second objective was less prominent in previous strategies. It is being given higher priority now because of wider recognition that environmentally-sensitive use of Kosovo's major natural resources—including investments in energy efficiency and renewables, as well as better management/clean-up of environmental hazards—are critical elements of the effort to improve the population's health and living standards.
- v. **Support for Kosovo under this CPS is organized into two pillars corresponding to the two main objectives given above.** Pillar I aims at accelerating broad-based and sustained growth through actions in six main areas: (i) supporting infrastructure, particularly energy, (ii) improving the business climate, supporting the private sector, and increasing access to finance; (iii) supporting agriculture development; (iv) continuing to invest in education and skills; (v) strengthening the regulatory and institutional frameworks for labor and social protection; and (vi) reinforcing public financial management and anti-corruption efforts. Pillar II seeks to support the Government to increase energy efficiency and the use of renewables, reduce environmental hazards, enhance water supply, and move towards harmonization with EU environmental standards.
- vi. **It is expected that IDA funding for the CPS would be around SDR 48.1 million, i.e., about US\$76 million or US\$19 million annually, supplemented by about US\$66 million in grant funds**

channeled through IDA by donors. In addition, IFC will aim to provide around US\$40–50 million in the form of direct financing to the private sector as well as additional funds for advisory services. MIGA could provide political risk guarantees in support of the energy sector. The CPS envisages five new IDA operations, a grant-financed DPL operation and IFC and MIGA transactions.

vii. **A main focus of the new lending under the CPS program is the energy sector with the aim of addressing Kosovo’s energy crisis in a comprehensive way, taking full account of environmental considerations and mitigating adverse impacts.** Proposed support would comprise a Partial Risk Guarantee (FY13/FY14) to private investors bidding on construction of a new (replacement) coal-fired power plant, where IFC would also consider to contribute with its own financing and through mobilization of additional funds, as well as transaction advice from IFC for privatization of electricity distribution. To support construction of the power plant, MIGA would consider providing an investment guarantee against non-commercial risks. A large Energy Efficiency and Renewables project (FY13) under CPS Pillar II would also help to implement the country’s energy strategy. In addition, a small additional financing operation for the ongoing Energy Sector Clean up and Land Reclamation project would help build Government’s environmental and social impact monitoring capacity, as well as carry out additional clean up of the legacy waste at the site of Kosovo’s existing thermal power plants. The program also includes three other operations, including the second in a two-part program of grant-funded DPL operations for Sustainable Employment (FY12), an Education Improvement project (FY14) and a Water Supply project (FY15).

viii. **While new lending will be selective, the WBG will continue to support a broader development agenda through a robust program of AAA and technical assistance/capacity building.** In addition to annual analysis and monitoring of the macro-fiscal framework, financial sector, poverty and gender, and ongoing IFC advisory support for the investment climate and PPPs in infrastructure, the CPS includes a Financial Sector Assessment (FSAP) and three ROSCs, a Country Environmental Analysis and programmatic assistance to strengthen public expenditure management, the fiduciary framework and anti-corruption efforts. In addition, Kosovo benefits from AAA activities covering the Western Balkans, including analytical work on Smart Safety Nets, Energy Strategy, Employment and Jobs, Health Finance and Climate Change, as well as several Trust Funds financed by the EC, in areas such as Science, Technology and Innovation, Monitoring and Evaluation and Public Financial Management.

ix. **The implementation of the FY12-15 CPS entails four main risks as follows:**

- Kosovo’s uneven track record in fiscal management in the past raises some questions about **medium-term macroeconomic stability**, especially if further economic deterioration occurs in Europe. Recent improvements in fiscal management and the new Stand-By Arrangement (covering a 20 month period from April 2012) with the IMF should help to reduce this risk.
- While investment in Kosovo’s energy sector is critical to growth, job creation, and poverty reduction, the Bank’s involvement in the new lignite-fuelled **power generation** plant will likely generate controversy among some civil society groups. This risk is being addressed through ensuring transparent processes and regular dialogue/outreach throughout project development.
- An additional risk is that, given continued turmoil in financial markets (especially in Europe), **power project financing** may not be easy to obtain. The availability of WBG guarantees should help to mitigate this risk. Credit enhancement from other multilateral lenders would also help to catalyze needed funds from the private sector.
- Kosovo’s **governance** and political structures could destabilize in the event of significant shocks. Also, Kosovo’s governance systems still lack full transparency, accountability, and viability. Actions to support improved public financial management included in the DPL and in the ongoing Public Sector Management Project should help to reduce this risk. The Bank will also carry out programmatic AAA to follow on the recommendations of the Country Fiduciary Assessment, including support for anti-corruption initiatives.

I. INTRODUCTION

1. **This Country Partnership Strategy (CPS) is the first to be prepared since Kosovo declared independence in February 2008 and became a member of the International Monetary Fund (IMF) and the World Bank Group (WBG) in mid-2009.** The CPS, which covers FY12–15, follows a series of Interim Strategy Notes (ISNs) implemented over the last decade—the most recent one being a two-year ISN for FY10–11. This CPS is being prepared after Kosovo’s 2011 general election to ensure close alignment with the Government’s national development priorities in the context of the country’s aspirations for integration with the European Union (EU). As Kosovo is an IDA-only country, the strategy will be financed principally by an allocation from IDA-16 for FY12–14 and from IDA-17 for FY15. At this stage, it is expected that the total funds available for Kosovo for the CPS period would be around SDR 48.1 million (or about US\$76 million), i.e., about US\$19 million annually. It should be noted, however, that in accordance with IDA rules, all the amounts beyond FY12 are indicative only. Actual allocations will depend on (i) the country’s own performance; (ii) its performance relative to that of other IDA recipients; (iii) the amount of overall resources available to IDA; (iv) changes in the list of active IDA-eligible countries; (v) terms of financial assistance provided (grants or loans); and (vi) the amount of compensatory resources received for Multilateral Debt Relief Initiative (MDRI). Since IDA allocations are made in SDRs, the US dollar equivalent is dependent upon the prevailing exchange rate. The International Finance Corporation (IFC) will provide about US\$40–50 million in the form of direct financing to the private sector as well as additional funds for advisory services. To support private sector participation in the power sector, MIGA would consider providing an investment guarantee against non-commercial risks and IFC would consider providing financing for its own account as well as mobilize additional funding from other financial institutions. In addition, substantial grant resources—about US\$66 million—will complement WBG funds in financing the CPS program.

2. **The FY12–15 CPS proposes a selective and targeted support program aimed at (i) promoting growth and employment, and (ii) improving environmental management.** Building on the direction set by the FY10–11 ISN, the CPS consolidates the shift in the Bank’s focus from post-conflict reconstruction support towards a clear emphasis on addressing medium-term development challenges. The strategy pays due attention to lessons learned from the WBG’s involvement in Kosovo in the decade since the end of the 1998–99 conflict, the execution of ongoing Government or donor-sponsored programs, and consultations with the Government of Kosovo, Parliament, the private sector, civil society, and the community of bilateral and multilateral development partners.

3. **The main objectives of the CPS are to support Kosovo to (i) accelerate broad-based economic growth and employment generation; and (ii) improve environmental management.** The proposed strategic focus of this CPS stems from the Government’s own policy priorities anchored in the need to build a stable society following years of conflict, and the objective of preparing the country for eventual EU membership. The CPS is fully aligned with the Government’s national development plan and the Medium-Term Expenditure Framework (MTEF) for 2011–14. Fostering employment-generating, inclusive growth is critical for a young, multiethnic country with high unemployment and, as such, could help to reduce the strains that exist within the society from years of ethnic conflicts. In parallel, there is a need to increase energy efficiency and the use of renewables, strengthen environmental management, and improve access to good quality water.

II. COUNTRY CONTEXT

A. Political Context

4. **Kosovo is a potential candidate for EU membership, now with a clear perspective in the *Stabilization and Association Process* (SAP).** The February 2012 agreements in the EU-moderated talks with Serbia on Kosovo's regional representation¹ and integrated border management (the "footnote compromise") appears to have enabled the European Commission (EC) to establish contractual relations² and, on that basis, (i) take the first steps in the SAP, starting with the feasibility study; and (ii) advance membership in European (financial) institutions. As per assurance contained in the EC's October 2011 *Enlargement Package*, the EU has opened the visa liberalization dialogue in January 2012, with the aim of enabling visa-free travel to the Schengen area in due course. The EC has reiterated its commitment to full EU membership "once conditions are met." Progress towards integration is monitored regularly via annual Progress Reports. The EC's 2011 Progress Report called for considerable reforms and investments to enable Kosovo to cope with competitive pressure and market forces within the EU.

5. **The period of "supervised independence" ends in December 2012.** In early 2012, the 25-country International Steering Group (ISG), set up in 2008 to guide democratic development, promote good governance, multi-ethnicity, and the rule of law, announced its plans—with subsequent support from Parliament—to close the International Civilian Office (ICO), thus far the final authority regarding the interpretation of the Comprehensive Settlement Proposal ("Ahtisaari Plan").³ The appointment of the new head of the EU Office in early 2012 marked the end of the personal union between the EU Special Representative (EUSR) and the International Civilian Representative (ICR), in preparation of the latter position's abolishment. However, both the EU's rule-of-law mission (EULEX), which performs some police, judicial, and customs functions, and the NATO-led peacekeeping force (KFOR), with more than 6,000 soldiers from 30 countries, are expected to continue to play important—if gradually declining—roles in the foreseeable future. KFOR's main objectives are to (i) provide a safe and secure environment; (ii) maintain security in northern Kosovo; and (iii) oversee the newly established Kosovo Security Force.

6. **Although there has been a steady increase in international recognition of Kosovo, the country is not yet a member of the United Nations, in turn hindering Kosovo's overarching objectives of political integration and socio-economic development.** As of March 20, 2012, 89 countries have recognized Kosovo's independence, including all neighbors except Serbia (which regards Kosovo as a UN-governed entity within its sovereign territory). The prospect for UN membership⁴ remains dim as two veto-holding permanent members of the UN Security Council have called for the statehood issue to be settled in direct negotiations between Pristina and Belgrade. Following the violent escalation of the trade tit-for-tat over the recognition of Kosovo's customs stamps in 2011-S2, the status of northern Kosovo—comprising three Serb-majority municipalities and the city of Mitrovica that have refused to accept the authority of the central authorities in Pristina—has been placed on the political agenda, albeit without a clear perspective of a political settlement.

¹ With this agreement, Kosovo will represent and sign for itself in regional fora and not require any longer the representation through UNMIK. However, it does so not under its Constitutional name ("Republic of Kosovo") but as "Kosovo*" with a footnote stating, "This designation is without prejudice to positions on status and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo Declaration of Independence."

² The "footnote compromise" appears to have unblocked obstacles in the formal progress in advancing the integration agenda that has been constrained by the non-recognition of Kosovo by five EU members.

³ In April 2008, UN Special Envoy Martti Ahtisaari had presented to the UN Security Council a "Comprehensive Proposal for the Kosovo Status Settlement" with a recommendation of eventual independence, following a period of international supervision.

⁴ For a "peace-loving State" to become a member of the UN, it would have to (i) garner the recommendation from 9 of the 15 members of the Security Council (without any of the five permanent members vetoing such a decision); and (ii) secure a two-third majority of currently 193 member states.

7. **Kosovo's political system is a representative democracy with a unicameral legislature.** The Parliament of Kosovo has 120 members, of which 10 are reserved for ethnic Serbs and another 10 for other minority parties. Electoral laws also require that at least every third candidate on the electoral lists of all parties is female. There are currently five major political parties represented in Parliament and twelve smaller ones representing ethnic minorities. The largest parties include the center-left Democratic Party of Kosovo (PDK), the center-right Democratic League of Kosovo (LDK), the nationalist youth movement Self-Determination (*Vetëvendosja*), and the center-right Alliance for the Future of Kosovo (AAK). The Government coalition is formed between the PDK and two other political parties represented in Parliament, viz., the pro-business New Kosovo Alliance (AKR) and the Serb-minority Independent Liberal Party (SLS). Following two presidential crises in 2010 and 2011 and a subsequent compromise across all major parties, President Atifete Jahjaga—Kosovo's first female, first non-partisan president—is expected to be the last head of state elected indirectly by Parliament. Two commissions are currently finalizing a broad-based overhaul of the Constitution and the Electoral Law to allow, *inter alia*, for the direct election of the President. On this basis, the next rounds of presidential and general elections are foreseen in 2013.

B. Recent Macroeconomic Developments

8. **Kosovo's economic growth has averaged over 4 percent since the end of the conflict in 1999, and remained positive throughout the global economic crisis. Growth peaked at 6.9 percent in 2008 before declining to 3 percent in 2009 in the wake of the crisis** (see Table 1). The overall impact of the crisis was smaller in Kosovo than in neighboring countries, largely because of Kosovo's limited integration into the global economy. Growth is estimated to have reached around 4 percent in 2010 and 5 percent in 2011, with preliminary data suggesting that growth was driven by increased public spending, and, to a lesser extent, by private investment and a surge in commodity exports. The IMF projects that GDP growth will be around 3–4 percent in the medium-term, because Kosovo is somewhat insulated from the global economy. However, a sharper-than-expected downturn in Europe would lower growth through declines in exports and remittances.

9. **Having adopted the euro as the local currency, Kosovo has to rely on fiscal policy as the main anchor for macroeconomic stability.** However, Kosovo's fiscal position has become strained as expenditures have risen rapidly since 2008. The savings from fiscal surpluses accumulated up until 2007, reflecting conservative spending policy and over-performing revenues, began to erode in 2008 and the fiscal deficit widened in successive years. The Government concluded an 18-month, €104-million Stand-By Arrangement (SBA) with the IMF in July 2010. However, the program went off-track, largely due to the failure of an attempt to privatize the telecommunications company (PTK) and an (unplanned) increase of 27 percent in civil servant wages to fulfill an electoral campaign promise. In July 2011, the authorities and the IMF agreed on a six-month staff-monitored program (SMP). Although the non-realization of revenues from the sale of PTK could have been covered by existing accumulated bank balances, the Government, in agreement with the IMF, decided instead to make cuts of about €60 million to the budget to preserve a higher level of bank balances.

10. **Since July 2011, macroeconomic policies have been broadly satisfactory and the implementation of structural measures under the SMP has remained on track leading to the agreement on a new IMF SBA.** The two SMP reviews were successfully concluded with fiscal targets met; the 2011 budget deficit (1.8 percent of GDP) was 1 percentage point lower than projected. The process of privatizing PTK (originally expected to be completed in 2011 and part of the SMP) is ongoing in 2012 and the financial transaction is expected to close in 2013. due to waning investors' interest, which, in turn, put pressure on the Government's ability to finance the deficit. In this context, the

Government cut expenditure by about €60 million in the 2011 budget and adopted a more restrained budget for 2012. In terms of structural measures, solid reform progress was achieved on tax administration, banking, and energy reforms. As a result of the successful implementation of the SMP, the authorities and the IMF reached agreement on a 20-month, €107-million SBA, starting in April 2012.

Table 1: Kosovo Macroeconomic Indicators

	2008	2009	2010	2011	2012	2013	2014
	Actual		Estimate		Projections		
Population, in thousands*	1,662	1,687	1,712	1,738	1,764	1,791	1,817
GDP, in millions of euro	3,851	3,912	□,216	4,637	4,911	5,234	5,508
GDP per capita, in euro	2,317	2,319	2,462	2,668	2,784	2,923	3,031
Investment, in percent of GDP	28.6	32.3	33.9	33.2	32.6	33.9	32.3
Real GDP growth, in percent	6.9	2.9	3.9	5.0	3.8	4.1	3.2
CPI (period average), in percent	9.4	-2.4	3.5	7.3	0.6	1.2	1.4
<i>Fiscal accounts, in percent of GDP</i>							
Revenues	24.5	29.3	27.6	28.1	28.1	27.1	27.8
of which: official grants	0.0	0.0	0.7	0.4	0.7	0.0	0.0
Primary expenditures	24.7	29.9	30.0	29.8	30.5	30.2	28.6
Interest income, net	0.0	-0.2	0.3	-0.1	-0.1	0.0	-0.1
Overall balance	-0.2	-0.7	-2.6	-1.8	-2.7	-3.3	-1.1
Stock of Government bank balances	10.8	8.7	5.8	3.5	3.8	8.8	8.7
Public debt	0.0	6.7	6.9	5.6	6.9	8.5	9.0
<i>External accounts, in percent of GDP</i>							
Current account	-15.3	-15.4	-17.4	-20.3	-18.3	-18.3	-16.1
Exports of goods	5.6	4.5	7.2	6.9	7.2	7.5	8.0
Imports of goods	-49.0	-47.3	-49.4	-52.0	-49.7	-48.9	-47.8
Services receipts	9.1	11.0	11.3	13.1	13.3	13.4	13.6
Services payments	-7.0	-7.9	-9.7	-9.1	-8.8	-8.4	-7.9
Transfers	21.5	22.1	21.1	18.1	17.3	15.6	15.6
Official transfers	7.5	10.2	8.6	5.9	5.4	3.9	3.5
Private transfers	14.0	11.9	12.5	12.2	11.9	11.8	12.0
Capital account	0.0	2.8	0.6	0.1	0.0	0.0	0.0
Financial account, including CBK	12.9	11.1	12.5	15.9	12.3	14.2	12.4
Net errors and omissions	2.5	1.6	4.3	4.3	4.1	3.8	3.6

* Population number here does not include Serbs living in the northern part of Kosovo

Sources: Kosovo authorities, IMF and WB staff estimates.

11. **The authorities are committed to maintaining medium-term fiscal sustainability.** The fiscal deficit is expected to increase to 2.7 percent of GDP in 2012 and to peak at 3.3 percent of GDP in 2013, due to high spending on the Route 7 motorway. It is then projected to decline in 2014 when the motorway project is planned to be completed. At the same time, improvements in tax administration are expected to improve tax collection and tax revenue over the medium-term. The commitment to a sustainable medium-

term fiscal framework was supported by actions taken by the authorities in the second half of 2011. First, the construction of the Route 6 motorway to FYR Macedonia will start only after a cost-benefit analysis is carried out and financing secured. Second, additional war-related benefits, defined by the law on war values of December 2011, will be introduced based on a fiscal impact assessment and consider affordability and economic incentives criteria. This implies that the authorities would first define the amount of spending and only then define the benefits, so that spending limits are not breached.

12. **Kosovo’s public debt—at 5.6 percent of GDP at end-2011—is very low and largely comprised of the inherited share of ex-Yugoslav debt to IBRD.**⁵ There are two legal mechanisms to preclude public debt from rising to unsustainable levels. First, Kosovo’s public debt law sets a maximum public debt ratio of 40 percent of GDP and, second, the Constitution requires that any external borrowing by the Government requires Parliamentary ratification with a two-thirds majority. The public debt stock was entirely external until 2011, as the Government securities market had not yet been developed. As of January 2012, the Ministry of Finance has successfully issued the first rounds of 3-month T-bills, in the amount of €10 million each, with preparations being made for 6-month T-bills later on in 2012. Commercial banks, which have good liquidity (including non-interest earning excess reserves at the CBK) are expected to be the main investors in the domestic securities market. While data on private external borrowing is not fully available, such borrowing is likely to be very small (below 1 percent of GDP), given Kosovo firms’ very limited access to international financial markets. Therefore, total external debt, though not officially published, is estimated to be only slightly higher than the public debt.

13. **Despite its low external and public debt, Kosovo’s debt sustainability could be jeopardized by worsening fiscal deficits or growth moderation.** The IMF’s debt sustainability analysis in the 2011 Article IV report shows that all debt indicators remain on a sustainable path over the next two decades in the baseline fiscal and external scenarios shown in Table 1 (Annex 2). However, the debt trajectory is subject to prominent risks that could derive either from fiscal issues and/or growth shocks. Maintaining the primary deficit as a share of GDP at the 2011 budgeted level of 4.8 percent of GDP over a two decade period would put debt on an unsustainable path. Debt would also become unsustainable if growth is lower by one standard deviation (2.3 percentage points) in 2012 and 2013. In terms of external debt, the main weakness lies with the high debt and debt service to exports ratios. This is a result of Kosovo’s small export base, a weakness which is somewhat rectified by Kosovo’s large and stable remittance flows.⁶

14. **With limited room to maneuver in monetary policy, maintaining macroeconomic stability must rely on sound fiscal policy.** On the revenue side, the main priorities for policymakers are to broaden the tax base and continue to improve revenue collection. Making fiscal spending more efficient and sustainable will depend on the timely implementation of structural reforms in key sectors, including energy, transport, and health. In addition, maintaining control over recurrent expenditures—in particular, salaries and social transfers—will be essential for fiscal sustainability. Given Kosovo’s unilateral euroization, monetary policy is constrained, and ensuring stability of the banking sector will remain a priority especially in the prevailing environment of uncertainty in European financial markets. Setting up the “emergency liquidity assistance” fund for the banking sector represents an important step.

C. Socio-Economic Environment

15. **Although Kosovo has come a long way in re-establishing peace and social stability, a few municipalities with sizeable minority populations—mainly those in the Serb-dominated**

⁵ Up to 2009, Kosovo had no public debt. In 2009, Kosovo took over its share of former Yugoslavia’s debt to IBRD, in the amount of €381 million (9.7 percent of GDP). Kosovo has not participated in the division of other assets and liabilities of former Yugoslavia; if this process takes place, it may inherit additional debt owed to the Paris and London Clubs.

⁶ The IMF’s debt sustainability analysis includes the potential additional liabilities referred to in footnote 5.

municipalities in northern Kosovo—continue to experience unrest. While considerable progress has been made in overcoming the tensions in mixed areas, the three Serb-dominated municipalities in northern Kosovo remain prone to localized outbreaks of violence. Other minorities tend to keep a low profile in terms of ethnic conflict but sometimes suffer economic and social discrimination, and are disproportionately represented among Kosovo’s poorest households. The Government of Kosovo and civil society groups have put in place a number of initiatives to promote inclusion of all minorities including through affirmative action.

16. **With a per-capita GDP of about €2,600, Kosovo is one of the poorest countries in Europe.** With 34.5 percent of its population of 1.8 million⁷ living below the poverty line, i.e., on less than €1.55 per day (and about 12 percent living on less than €1 per day), poverty is widespread. However, Kosovo has a relatively low Gini index (about 0.3 in 2009) and a relatively flat consumption distribution. No significant differences exist between urban and rural poverty, but there are notable regional differences, with poverty rates varying from 53.8 percent to 18 percent among districts. Young people are disproportionately poor, accounting for about 60 percent of people living below the poverty line. Kosovo’s ethnic minorities—especially the Roma, Ashkali, and Egyptian ethnic groups, which comprise about 2–3 percent of the population—are particularly vulnerable to income poverty besides frequently being marginalized in socio-political and economic life. As in many other countries, there is a strong negative correlation between education and poverty, with those having secondary or higher education much less likely to be poor.

17. **Widespread unemployment and a lack of quality jobs have contributed significantly to poverty and income insecurity as well as to gender inequality, social instability, and ethnic tensions.** With a 45-percent unemployment rate and a low employment rate (29 percent), Kosovo has the weakest employment track record in Europe. Kosovo’s 53 percent labor participation rate among the working-age population is substantially below the ECA average (65 percent). Obviously, the lack of jobs has direct consequences on income, and empirical evidence suggests that the risk of poverty is 20 percent higher for the unemployed than the employed. Households with unemployed heads have the highest extreme poverty indices. In addition, many households with adult members in precarious or unsteady jobs are also below the poverty line. Many of these households are dependent on small, informal enterprises for the majority of their income, reflecting the high degree of informality in Kosovo’s economy.

18. **Kosovo’s difficult labor market conditions have been especially severe for youth and women.** Unemployment among the population 15–25-year-olds reaches 76 percent—a figure that is more alarming considering that 21 percent of Kosovo’s population is between the ages of 15 and 25. The poor quality of the education system, coupled with limited employment opportunities, makes it difficult for young people to access and retain jobs. Moreover, young people who do find employment are typically hired into low-skilled, low-productivity positions, often in the informal sector. According to survey data, about 20 percent of employed youth did not have an employment contract, 37 percent were not entitled to paid leave, and 73 percent were not registered in the social security system. At 56 percent, unemployment is also unacceptably high among Kosovo’s women. Only 11 percent of working age women are employed, compared with 68 percent of men, in part because of lower educational opportunities and achievement (see Box 1).

⁷ According to the data from the 2011 census, Kosovo’s resident population stands at about 1.73 million, excluding the population in northern Kosovo. The World Bank thus estimates the entire population at close to 1.8 million.

Box 1: Gender Disparity in Kosovo

Kosovo has made progress in tackling gender inequalities over time, but substantial gender gaps persist. Focusing on gender inequalities in human capital and economic opportunities, a gender diagnostic, undertaken to inform the CPS, identified significant disparities: (i) large gender gaps in literacy, educational attainment and secondary school enrollment; (ii) overall low life expectancy, more pronounced for women, and high maternal mortality (iii) exceptionally low women's labor force participation and employment rates; and (iv) low representation of women in entrepreneurship and management, as well as in senior Government positions.

Gender gaps in human capital. Kosovo has achieved near universal primary school enrollment and the country has made significant progress in improving literacy rates. However, significant gender gaps persist. Women are more than twice as likely as men to be illiterate, with illiteracy rates of 7.2 percent for females, compared to 2.2 for males. However, some progress has been made in recent years, given that the gender gap widens with age (in rural areas, the literacy gender gap reaches 34 percentage points among the elderly in rural areas. Women have lower educational attainment than men in Kosovo and recent figures show that girls are underrepresented in educational institutions at all levels—except for university education. In terms of enrollment, large gender gaps appear in secondary level, with fewer girls enrolled than boys. Drop-out rates for girls in primary education are relatively higher and, while boys' drop-out rates have decreased since 2004, they have increased for girls.

Maternal mortality is estimated at 43.3 per 100,000 births, which is one of the highest rates in the ECA region. Inadequate quality of antenatal care, pregnancy and labor complications, and unsafe abortions are among leading causes of maternal deaths. Poor nutrition and anemia are also important contributing factors. Life expectancy has increased slightly in Kosovo in the past decades for both men and women. Nevertheless, life expectancy for both groups is the lowest of the Western Balkans countries (71.8 and 67.6 years for women and men, respectively) and women's advantage in life expectancy is smaller than that seen in global averages, mainly due to lower life expectancy for women. Other important gender-related concerns in Kosovo are the high rate of miscarriages, stillbirths and abortions, and evidence of a sex imbalance at birth in favor of boys.

Gender gaps in economic opportunities. Labor market outcomes in Kosovo are among the poorest in the region, particularly for women. Women's labor force participation is significantly lower than for men (26 percent compared to 58 percent in 2009, respectively) and has decreased since 2002. This low activity rate for women, the lowest in the Western Balkans, is partly related to a disproportionate share of household responsibilities or because they are discouraged by the absence of opportunities for paid employment outside the home. Other closely related factors are the lack of childcare facilities and an inadequate access to flexible work arrangements. In addition, unemployment rates are significantly higher for females (56 percent) than for males (41 percent) in Kosovo, and are the highest, for both sexes, of countries in the region. Unemployment rates reach very high levels for the younger population (15–24 years), at 82 percent for women and 69 percent for men. Among the low share of employed women, they are considerably underrepresented in leading positions in firms, comprising less than ten percent of all entrepreneurs and with the lowest representation in private firms' top management (0.3 percent) of all ECA countries. Finally, although Kosovo has made significant progress in increasing women's voice in political decision-making, the share of women in leading Government positions remains low.

19. **Besides facing challenges of widespread income poverty, Kosovo's citizens have insufficient opportunity for investment in education and health as evidenced by relatively low social indicators.** While Kosovo's net primary enrollment rate reaches 96 percent, the country's secondary and higher education enrollment lags behind rates in South East Europe (SEE). For example, Kosovo's 75 percent net secondary enrollment rate trails the 82 percent rate in neighboring FYR Macedonia, and drop-out rates remain high in rural areas, especially among girls. The gender gap in secondary enrollments has not yet narrowed tangibly, with women in their twenties being much less likely than men to have completed secondary education (60 percent versus 76 percent). Moreover, Kosovo's education system does not provide to its nearly one-half million students adequate curricula and instruction to produce the skills that the evolving labor market requires. The National Qualification Authority recently adopted a new National Qualification Framework (NQF) which aims to strengthen standards in pre-university and vocational/technical education. Health outcomes in Kosovo are extremely low. According to UNDP data, Kosovo had the highest child and infant mortality rates and the lowest life expectancy (70 years in 2009) in SEE. Major investments in the quality of basic healthcare services are needed to improve outcomes in

tuberculosis, immunization, and reproductive care. Access to health care also faces significant barriers. Within Europe, Kosovo has the lowest rate for hospital admissions and the second lowest rate for outpatient visits. Shortages of essential drugs are widespread, and out-of-pocket payments constitute 80 percent of the expenditures on pharmaceuticals.

III. KEY DEVELOPMENT CHALLENGES AND GOVERNMENT STRATEGY

20. **The central development challenge relates to an economic growth path that (i) creates high-quality jobs; and (ii) uses key natural resources in a sustainable and environmentally sensitive manner.** Kosovo's growth model in recent years has largely been based on the availability of external sources of financing, especially donor assistance and remittances. The Government of Kosovo recognizes that this model cannot be the foundation of a sustainable growth strategy, especially in the current economic environment. Donor support has already declined considerably from its peak and is expected to decline even further. By contrast, private-sector investment has begun to emerge and could be the principal engine for accelerated growth and employment-creation. Creating a hospitable climate for investment is thus a critical component of Government's current strategy -- Vision of Economic Development Priorities and associated Action Plan and Medium-term Expenditure Framework (2011-2014) -- for creating jobs for the large proportion of unemployed Kosovars, and accelerating the convergence to SEE and European income levels. In addition, Government attaches high priority to agriculture sector development as the sector currently accounts for 35 percent of total employment. Kosovo is also increasingly aware of the need to pay more attention to environmental problems and to move towards EU environmental standards and requirements. The remainder of this section provides a more in-depth look at the challenges faced by Kosovo in each of these areas.

A. Key Challenges in Promoting Private Investment and Employment

21. **Kosovo has considerable potential to shift towards rapid and sustainable private sector-led growth and job creation if it can address existing obstacles to investment.** As noted in the Bank's 2010 Country Economic Memorandum (CEM), the country enjoys several comparative advantages that are important to the creation of a flourishing export sector as well as to attracting local and foreign investment in the tradable sectors. Indeed, Kosovo is endowed with several key assets, viz., abundant natural resources, a young and growing (albeit underutilized) labor force, good quality agricultural land, and virtually free access to the EU and regional markets. In some respects, the policy environment is also favorable, including (i) a tax system that is simple and has low rates; (ii) a labor market that is more flexible than in neighboring countries; and (iii) comparatively low wages for (semi-)skilled workers. Nonetheless, there are a number of serious obstacles to investment that need to be addressed if Kosovo is to realize its potential as an attractive destination for local and foreign private investment.

22. **The 2010 BEEPS⁸ report for Kosovo points to five sets of obstacles to doing business.** While in some areas the business climate in Kosovo is better than that in neighboring countries (or even in the EU10+1), main challenges include severe infrastructure gaps, deficiencies in the rule of law, shortages of appropriately skilled labor, limited access to finance, and onerous regulatory procedures for business entry and operations. Challenges and the Government's strategies in each of these areas are described below.

⁸ See EBRD and World Bank Group, 2010, "BEEPS At-A-Glance 2008: Kosovo."

Infrastructure

23. **Surveys of private firms (BEEPS 2010) indicate that infrastructure problems are perhaps the most serious constraint faced by businesses in Kosovo**—with power, transport, and telecommunication cited most frequently. Over 98 percent of Kosovo firms surveyed by BEEPS cited unreliable electricity supply as a major obstacle to day-to-day operations and a constraint both to investment in new equipment and business expansion, in turn affecting job and employment creation. Frequent power outages both increase costs by necessitating the use of expensive and polluting diesel-fired power generation and prevent investment in sophisticated equipment. Moreover, the power sector is currently both a major drain on public funds—absorbing €70 million in public subsidies annually—and highly polluting. To address these critical issues, Government—working in close concert with the EC, USAID, and the World Bank Group—has developed a multi-pronged approach aimed at ensuring adequate and reliable energy supplies, reducing the need for public subsidies to energy, and limiting the negative environmental impacts of power generation. The strategy also aims at significantly enhancing the involvement of the private sector in generation and distribution, while strengthening Government’s regulatory and supervisory capacity. The implementation of the strategy will depend on continued support from Kosovo’s external development partners as well as interest from private energy firms, which could be an issue in the current uncertain global economic climate. More details concerning the energy situation and Government’s strategy are given in Box 2 below.

24. **Kosovo’s transport system is also inadequate in relation to business and trade needs and is incompatible with European standards in many respects.** Adequate road transport and its integration with the networks of neighboring countries are of critical importance, given Kosovo’s landlocked geographical position. Currently, the costs of goods transported between Kosovo and key trading partners are among the highest in the region and a major deterrent to the achievement of greater trade integration and the development of export-oriented businesses. In this context, Government has embarked on major road investments, notably construction of a €60-million highway to Albania (providing businesses with sea access and a route to Western Europe) which is now under way, and has plans for another major highway to FYR Macedonia. Within Kosovo the road network density (3.3 km per 1,000 people) lags behind the ECA average (8.6 km per 1,000 people) and quality is poor due to poor construction and inadequate maintenance.

Governance and Rule of Law

25. **Kosovo ranks poorly on many dimensions of governance.** The EC’s latest Progress Report highlighted that perceptions of widespread corruption and weaknesses in the rule of law inhibited private investment and, in turn, job creation. Other governance sources reinforced these findings (Table 2). The 2010 World Governance Indicators placed Kosovo below the Europe and Central Asia averages for Government effectiveness, regulatory quality, and control of corruption. The Global Integrity Index rated Kosovo as “very weak” on Government accountability, administration, and civil service. Weak administration manifests itself directly in poor service delivery. A 2010 Life in Transition (LIT) Survey ranked Kosovo lower than the SEE average on satisfaction with public services ranging from social services to police and the courts. The Government has initiated many reforms and enacted some laws, but implementation is slow. The Government’s revised public administration strategy for the period 2010–13, adopted in September 2010, has not yet been implemented. In civil service reform, some

Table 2: Rankings for Key Governance Indicators
(lower ranks indicate better performance)

	Doing Business Index 2012 (of 183 countries)	Transparency International Corruption Perceptions Index 2011 (of 183 countries)
Kosovo Rank	117	112
ECA Average Rank	72.4	93.1
SEE Average Rank	82	83.6
EU-25 Average Rank	36.3	32.4

Sources: Doing Business 2012, Transparency International, 2011

Box 2: Energy in Kosovo

Demand for energy has been growing rapidly in Kosovo over the past decade, with actual energy consumption and peak demand growing by more than 90 percent between 2000 and 2010—despite being constrained by supply limitations and consequent frequent load shedding. As seen in many countries, these problems have multiple adverse impacts. First, prolonged electricity load shedding (power cuts) deprives people of light, space heating, refrigeration, and cooking fuel—with obvious implications for their health, access to education, and overall quality of life. Second, there is convincing evidence that Kosovo’s unreliable power supply is a major constraint to business development and, hence, badly-needed employment opportunities. As the population grows, demand for electricity is continuing to climb by about 4.6 percent a year.

Most of Kosovo’s domestic electricity generation comes from two coal-fired power plants (Kosovo A and B) with net operating capacity of about 840–900 MW. Additional supply, amounting to 5–17 percent of annual consumption over the past decade, is derived largely from imports of electricity via regional interconnections. The availability of electricity imports for base power is unreliable and subject to price volatility because it is affected by supply conditions in neighboring exporting countries (e.g., hydrological conditions in the region). A KfW funded 400kV transmission line between Kosovo and Albania should help to facilitate an exchange of power, given that Albania relies principally on hydroelectric generation while Kosovo has predominantly thermal power. This power exchange should result in operational, economic, and environmental benefits to both countries. In general, however the regional market is shallow. Moreover imported power is also frequently generated from thermal sources. With regard to generation as well, the current situation is unsatisfactory: both thermal power plants are antiquated and unreliable and operating well below their installed capacity. For example, two of five units at Kosovo A, the oldest and largest plant, are out of operation and the remaining three produce only up to about 350 MW, well below their installed capacity. The Kosovo B plant (net capacity of about 540 MW), though newer (about 25 years old), is affected by damage to the turbine rotors of its two units and deterioration of other critical components, resulting in frequent forced outages. Both plants are highly polluting, with Kosovo A being the worst single-point source of pollution in SEE. Its high emissions of sulfur and nitrogen oxides and particulate matter (PM) have significant negative health impacts for the population in the vicinity of the plants, which includes the capital city Pristina.

In this context, Government, with support from several external partners, has proposed a multi-pronged approach to addressing Kosovo’s energy crisis and related environmental issues. It seeks to (i) close Kosovo A by 2017 and replace it with a new, state-of-the-art, privately operated 600-MW power plant termed the “Kosova e Re” Power Plant (KRPP); (ii) attract private investment to rehabilitate and upgrade Kosovo B, including ensuring conformity with EU environmental standards; (iii) privatize electricity distribution *inter alia* to reduce technical and commercial losses; (iv) step up payment enforcement and raise tariffs to levels consistent with full cost recovery; (v) expeditiously address environmental legacy issues associated with Kosovo A and B; (vi) invest significantly greater resources in energy efficiency in the near term; and (vii) maximize the use of renewable energy (hydro, solar, wind, geothermal). Implementation of the above strategy is expected to reduce PM emissions by over 90 percent, sulfur and nitrogen oxides by over 70 percent and lower carbon emissions per unit of electricity produced.

Several studies of Kosovo’s energy options have been conducted with donor assistance over the last ten years. A 2004 Regional Generation Investment Study for the Western Balkans and its 2007 Update indicated an emerging shortage of 10,000 -12,000 MW by 2025. More recently, the Bank conducted a study entitled Development and Evaluation of Power Supply Options for Kosovo (2011), whose findings broadly support the strategy being proposed by the Kosovo Government. The Options Study considered ways of meeting Kosovo’s current and future energy needs taking into account economic, financial, and environmental costs, including the potential contributions of efficiency improvements, demand-side management, construction of small hydropower plants, and other renewable sources, importing electricity from neighboring countries and additional thermal generation. The study found that the lowest-cost reliable energy supply that would meet Kosovo’s base load and peak demand is a mix of thermal and renewable energy sources. This mix would include (i) a hydropower plant (Zhur) of about 300-MW and, according to a DANIDA study, at least 60 MW from small hydropower plants; (ii) a preliminary estimate of 395 MW in wind, biomass and biogas-fired power generation (to be confirmed through technical studies); (iii) upgrading of Kosovo B plant; and (iv) construction of the new 600-MW coal power plant which has been proposed by Government to replace Kosovo A. The study is premised on continued investment in energy efficiency improvements, rapid reduction of technical and commercial losses and development of renewable energy sources. In the longer term (10–15 years) it is expected that construction of a Balkans gas-ring could enable Kosovo to import gas to meet its growing energy demand.

important regulations and administrative instructions have been adopted, such as the regulation on working hours, on job descriptions, the appointment of senior civil servants, and the register of civil servants. However, the legal framework necessary to implement the primary civil service legislation has not been adopted. Judicial reform has been initiated, but has not improved court efficiency or assured the safety and independence of the judiciary yet. An anti-corruption agency has been established and some legal reforms taken to strengthen the anti-corruption legal framework, but implementation remains a challenge. Considerable support is being provided by the EU's ("technical") Rule of Law Mission to Kosovo (EULEX)—with around 3,200 staff (of which 1,950 international)—in helping Kosovo's Government to strengthen police, judiciary, and customs.

Education and Labor Markets

26. **Appropriately educated, skilled human resources are critical to private investment, growth, and employment.** The education system needs to improve quality and relevance throughout the system and address access issues at secondary and post-secondary levels where students from the poorest households and women/girls from all income quintiles are clearly underrepresented. Indeed, 45 percent of businesses surveyed reported difficulties in recruiting skilled workers; in turn, more than 50 percent of unemployed men cited lack of appropriate education and skills as a reason for their inability to find work. Kosovo's school infrastructure is dramatically insufficient: more than half of schools operate on double shifts and about 5 percent on triple shifts. School and university management is weak, particularly with respect to monitoring of enrollment, performance, and institutional finances. At the same time, the education system remains poorly regulated, resulting in the low quality of services and weak linkages with labor demand, including apprenticeships for youth. Importantly, and within the framework of moving towards universal access to secondary education, targeted strategies are needed to increase girls' and women's access to secondary and post-secondary education and significantly raise enrollment. Similarly, attention needs to be paid to means of raising secondary school enrollments for children from the poorest households, of which only about two-thirds attend secondary school. The Government is placing high priority on strengthening the education system and has prepared a multi-year strategy for developing both general and higher education. The strategy, which addresses quality, implementation, and management issues, should help to alleviate sector deficiencies.

27. **While Kosovo's considerable labor market flexibility should be sustained and labor taxes kept low to promote labor demand, active labor market programs need to be strengthened to facilitate the transition to work.** Employment rigidity is among the lowest in the region and labor taxes are low. Kosovo faces the challenge of maintaining these favorable conditions in the face of pressures to increase worker protection and social services. It has done so successfully, for example, by passing a health insurance law that transforms the financing of health services without threatening the financial sustainability of the health system or increasing labor taxes. At the same time, however, major efforts are needed to improve the transition from welfare and long-term unemployment to work. Currently, more than 63 percent of unemployed people remain without work for over a year. To help to address this issue, the Government has introduced public works programs aimed at reducing joblessness in the short term and providing beneficiaries with the work experience needed to maintain/improve their employability. Employment services, however, remain ineffective, largely due to the inadequacy of information systems and low local capacities. Government has recently begun addressing this gap. As a first, immediate step, the Government has started to digitize the records system, which, in turn, will allow for better case management. It has also initiated a comprehensive, functional review of the employment services.

Strengthening the Financial Sector and Improving Access to Finance

28. **Kosovo's financial system has proven quite resilient to the global financial crisis, and its regulatory and institutional framework has been substantially strengthened.** The financial system is

dominated by foreign-owned banks and is largely deposit-funded, mostly from large and relatively stable remittance inflows. However, structural financial sector vulnerabilities exist as bank assets are highly concentrated, leading to a lack of competition and high interest rates. As a result, Kosovo's banking system has one of the lowest loan-to-deposit ratios in the region. Additionally, banks rely excessively on Government deposits. In recent years, Kosovo's regulatory and supervisory framework has been gradually improved to meet EU standards, both for banks and non-bank financial institutions. A new Banking Law has been drafted that is expected to strengthen governance standards, limit related party lending, authorize consolidated supervision of banking groups, and support bank resolution, when needed. The new Banking Law also assigns the CBK responsibility for licensing of micro-finance institutions.

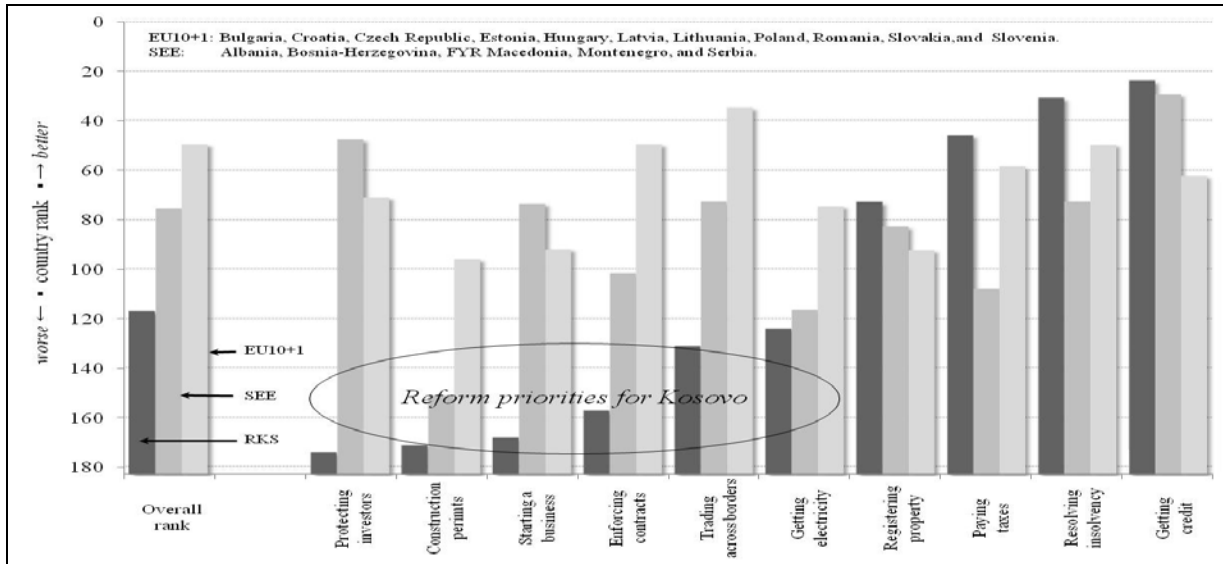
29. **In addition to strengthening financial system supervision, there is a need to improve access to affordable financial services, especially outside the capital city and for small enterprises.** BEEPS results indicate that access to credit is seen as a major obstacle by businesses in Kosovo. Only about 10 percent of investment is financed by credit, and over 85 percent of investment is financed from own resources. Further strengthening of banks' risk management practices is a necessary step in order to increase banks' willingness to lend. In addition, it is critical to develop and strengthen micro-finance institutions that have the potential to lend to farmers and other rural entrepreneurs. This would involve, inter alia, transforming existing non-profit foundations into more sustainable, for-profit financial intermediaries and raising awareness of the potential roles of small entrepreneurs in mainstream economic activities.

Legal and Institutional Framework for Business

30. **Although Kosovo's business climate has a number of strengths, the acceleration of private sector-led growth will involve addressing key institutional issues including ineffective licensing regimes and weak property rights.** Significant progress was made in Kosovo to put in place the basic legal framework and institutional structures necessary for a market-oriented economy. Moreover, Kosovo's business climate has several features that could make the country attractive to investors vis-à-vis its neighbors. Kosovo's labor markets are very flexible, the trade regime is open and liberal, and the banking sector is relatively dynamic, following the entry of foreign banks and gradually rising depositor confidence. However, weak institutional capacity, unclear property rights, and a complicated and fragmented licensing regime create fertile ground for growth of the grey economy. There is room for streamlining red tape and the Government is moving forward with the establishment of a one-stop shop, which should help potential investors to better navigate the requirements for investing in Kosovo.

31. **Improvement of the business environment is a key priority for Government and a Task Force has been formed with the mandate of improving Kosovo's DBR ranking** (currently 117th overall, see Figure 1). As a result of the task force's efforts, Kosovo recently passed amendments to relevant laws on business associations and internal trade to reduce the costs, number of steps and time involved to start a business and eliminate work permits and the charter capital requirement for limited liability companies.

Figure 1: Doing Business in Kosovo, the Western Balkans, and the EU10+1 Countries



Source: World Bank Group, *Doing Business* 2012.

Agriculture

32. **In addition to addressing the constraints present in the business environment that affect all sectors of the economy, special attention should be paid to addressing issues in agriculture, given its high potential.** Kosovo—endowed with good quality agricultural land—had been largely food self-sufficient in the past. At present, the sector currently contributes about 12 percent to GDP and is the largest employer in post-conflict Kosovo, accounting for approximately 35 percent of total employment. With its relatively abundant and underutilized labor, Kosovo has competitive potential in the horticulture sector, i.e., the production of fruits and vegetables as well as in the livestock sub-sector since domestic demand for horticulture and livestock products is expected to grow as purchasing power increases. Over the last decade, demand for high-value horticulture products has surged more than any other food category. However, while there is great potential for growth and expansion of productivity in agriculture, the sector faces several challenges that are reducing competitiveness and preventing it from meeting its potential. Unfavorable farm structures, outdated farm technologies and farm management practices, sub-optimal use of inputs, weak rural infrastructure, a rudimentary rural advisory system, and limited access to credit and investment capital are all limiting factors. In addition, Kosovo’s farmers are placed at a competitive disadvantage as agricultural imports originate in neighboring and EU member states in which farmers receive production and export subsidies.

33. **The Government strategy to promote growth and competitiveness in the agriculture sector is elaborated in the Agricultural and Rural Development Plan (ARDP) 2007–13** (which was updated in 2009). The fundamental objectives are to (i) undertake actions to overcome the bottlenecks holding back sustainable rural development in the country; and (ii) align Kosovo’s rural sector with the four axes of the Instrument for Pre-Accession for Rural Development (IPARD). The Government is undertaking several significant and strategic initiatives in this direction. It is also putting in place institutional structures in line with EU accession requirements. It recently established the Paying Unit within the Ministry which is expected to evolve into the IPARD Paying Agency.

B. Issues in Environmental Management

34. **Although environmental management has not been high on Government's agenda in the past, there is now growing recognition of the high costs of environmental neglect and the need to move ahead more rapidly towards meeting EU standards and requirements in environment.** The Government's Kosovo Environmental Action Plan (2011 draft) and the State of the Environment Report as well as the Bank's draft Country Environmental Assessment focus on three main areas problem areas—viz., (i) air pollution; (ii) water availability and quality; and (iii) hazardous and municipal waste. Key issues in each of these areas are discussed below, followed by a brief description of Government's strategy for addressing environmental problems in the country.

Air Pollution

35. **Air pollution is a significant problem in Kosovo's urban areas and a moderate problem for the country as a whole.** Urban ambient air quality is poor particularly in Pristina, the Obiliq area, the Drenas area, and in Mitrovica. The principal sources of pollution include (i) energy and mining production activities and the burning of wood and lignite for household heating purposes; (ii) smoke and emissions from large industrial complexes; (iii) landfills of urban and industrial waste which tend to have more specific local impacts; and (iv) vehicular emissions. Key health impacts from air pollution are related to the high levels of particulate matter (PM), also known as fine particles or dust. For the 2010–11 period, monthly average PM concentration values in Pristina fluctuated between 40–130 $\mu\text{g}/\text{m}^3$ —nearly always above the 40 $\mu\text{g}/\text{m}^3$ average concentration determined by the EU as being consistent with human health. The key sources of PM emissions in Pristina are the power plant and household use of wood and coal for heating purposes during winter. High PM levels are responsible for increases in cardiopulmonary and lung cancer mortality in the case of long-term exposure as well as chronic bronchitis and respiratory diseases, particularly in children.

Water Availability and Quality

36. **Kosovo has limited water resources, divided into four main water basins: the Drini i Bardh, Ibri, Morava e Binçës, and Lepeneçi.** There is unequal water distribution throughout the country, and—given the limited and insufficient water resources—water is expected to be a limiting factor for economic and social development in the future, particularly given rising demand for water due to increases in urban, industrial, and agricultural development. With regard to water quality, the percentage of the population with access to piped water supply is just 70–75 percent, while an even smaller proportion (50–55 percent) of the population is connected to the sewerage systems. Data from the Institute of Public Health on the quality of drinking water show that the pollution of drinking water is generally associated with bacterial rather than chemical contamination. Much of this bacterial (fecal) contamination occurs in the water supply systems of small cities and rural areas where a large proportion of wells and springs are thought to be contaminated, although no firm numbers exist. Given that there are no wastewater treatment plants in operation in Kosovo, it is not surprising that water contamination is a major issue.

Untreated Hazardous and Municipal Waste

37. **Environmental impacts from former mining and mineral processing are a substantial problem in Kosovo due to the lack of adequate environmental protection measures.** Historical and current industrial waste has remained—for long periods of time—in production sites, storage areas, and industrial hot spots. Mining and industry activities generate about 1.3 million tons per year of waste (commercial, hazardous and non-hazardous). Moreover, an estimated 395,000 tons of municipal solid waste is generated yearly. At present, there is a near-total lack of proper waste management in Kosovo for all waste types—domestic, industrial, healthcare, and hazardous waste—as well as for legacy pollution

from historical contamination. Current waste management practice, if left unchanged, will lead to high levels of pollution of groundwater and air (e.g., through methane or landfill gas), but also dioxins and fine particles when burned. In line with the municipal waste management policy, IFC has been working towards the concessioning of the Pristina landfill, for which there is strong private sector investors' interest.

Government Strategy for the Environment

38. **The Ministry of Environment and Spatial Planning (MESP) is preparing an update of the Kosovo Environmental Strategy (KES) and an associated National Environment Action Plan (NEAP) for 2011–15**, in close cooperation with other ministries, NGOs, and other development partners. The NEAP identifies short and long term objectives in the environment area aimed at meeting EU requirements. For the short term, the focus is on more rigorous implementation of existing legislation, continued efforts to modify legislation and institutions to conform with EU requirements and integration of environmental requirements into the sectoral development policies of relevant ministries. For the longer term the KES/NEAP sets goals and/or strategies for the following four areas: (i) reduction in pollution (including environmental degradation) and the prohibition of economic activities that harm human health or the environment; (ii) bio-diversity protection and the preservation of ecological balance; (iii) the rational and sustainable use of natural resources, including agricultural land; and (iv) the protection of valuable natural landscapes. In addition, the NEAP identifies needed investments in water and air quality, waste (including chemical waste) management, biodiversity preservation, and environmental policy development, categorizing them by priority, cost, and likely sources of funding.

IV. KOSOVO-WORLD BANK GROUP PARTNERSHIP

A. Active Portfolio, Lessons Learned and Partnerships

39. **The last ISN for Kosovo, covering FY10-11, was the first to cover a period of over one year and to involve the commitment of IDA credits as well as grants.** Since Kosovo had not been a member of the WBG until end-FY09, all World Bank–Kosovo operations prior to that time were financed through grants from a variety of sources, principally the Bank's net income, the Trust Fund for Kosovo, the Post-Conflict Fund, and IDA grants. Some of these projects are still active (though nearing completion) and are included in the portfolio table shown below. Newer projects committed under the last ISN were financed either partially or wholly through IDA credits.

40. **The World Bank supported portfolio currently consists of seven operations totaling US\$76.9 million in commitments and 11 trust funds totaling US\$66 million, including two State and Peace-Building Fund (SPF) grants.** The Business Environment TA Project and four trust funds are expected to close by June 2012. The remaining six operations and seven trust funds are either midway through execution or just starting up and are expected to be in active status through most or all of the CPS period (FY12–15). The objectives, content, and expected results of these operations have been reviewed in discussions with the Government in the context of preparing this CPS to ensure that they are fully consistent with the main objectives/directions of the FY12–15 strategy.

Table 3: Kosovo Active Portfolio

Project name	Board	Revised Closing	Age in years	Orig. commitment \$	% Project disb. ratio	Latest IP	Latest DO
Education Project	12/13/2007	6/30/2013	4.4	10.00	44.8	MU	MS
Public Sector Modernization	2/4/2010	6/30/2013	2.2	8.00	0.2	MS	MS
Business Env. TA Project	6/14/2005	5/31/2012	6.9	7.00	97.3	MS	MS
Kosovo, Financial Sector TA	12/13/2007	6/30/2014	4.4	8.90	12.3	MS	MS
Agriculture and Rural Dev	6/14/2011	7/31/2017	0.9	20.20	0	MU	MS
Real Estate Cadastre	2/4/2010	7/31/2015	2.2	12.30	1.4	MS	MS
Energy Sector Clean-Up and Land Reclamation	6/13/2006	06/30/2012*	5.9	10.50	65.7	MS	MS
			3.7	76.9	25.4		

*to be extended to 12/31/2013 to allow for additional activities under a proposed AF (see para 79)

41. **For the three-year period from FY08-10, disbursements for Bank-supported projects averaged close to 20 percent of total commitments per year but declined in FY11 to 13 percent, and have remained slow in FY12.** The decline in disbursements can be attributed, in part, to a slowdown in implementation associated with the municipal and national elections that diverted the attention of key officials. Disbursements were also affected by long effectiveness delays for some newly approved operations. The Public Sector Management Project and the Real Estate and Cadastre Project—both approved by the Board under the last ISN—were the first Bank operations in Kosovo to be financed wholly or in part by credits rather than grants and, as such, were subject to approval by a two-thirds majority in Parliament. Unfamiliarity with the processes for obtaining this approval and inadequate consultation with opposition parliamentarians led to considerable delays in securing the approval needed to make them effective. Eventually, both operations were approved by large parliamentary majorities (well in excess of the two-thirds requirement).

42. **The Government of Kosovo and the Bank are working to strengthen portfolio implementation.** The capacity of implementing agencies is being strengthened through a series of procurement and contract management training courses delivered quarterly to all employees and consultants involved in World Bank financed projects. In addition, the Bank's own capacity for supervision support and provision of just-in-time training to Government staff has been strengthened through the recruitment to the Country Office of a Country Operations Officer. Moreover, a Senior Operations Officer, who is based in Skopje, is providing part-time support. Jointly with the Ministry of Finance the World Bank team has started producing a Quarterly Portfolio Monitoring Tool, which outlines the main implementation milestones for all operations, and lays out the principal tasks of respective Government institutions and World Bank teams for the upcoming quarter. The Monitoring Tool, which will serve as benchmark to monitor implementation of the program, has been developed in close collaboration with the Ministry of Finance and is shared with all Ministers benefiting from Bank support.

43. **The CPS Kosovo program also benefits from substantial Trust Fund resources, currently amounting to about US\$66 million** (Table 4). As the table shows, the trust funds are fully aligned with

the Bank's country strategy, focusing in key areas such as employment, infrastructure, inclusion, and the financial sector.

Table 4: Country Specific Trust Funds

Trust Fund Name	Net Grant Amount US\$000	Grant Closing Date	Donor	Exec. By
TA Service to Central Bank of Kosovo	498	FY12	MDTF	BE
Carbon Capture and Storage Capacity Building	400	FY12	MDTF	BE
Kosovo Second Sustainable Employment Development Policy Operation	17,000	FY12	MDTF	RE
Kosovo Second Sustainable Employment Development Policy Operation	30,000	FY12	IBRD	RE
Building Stakeholder Support for Public Private Partnership in the Energy Sector	150	FY13	MDTF	BE
Health results based financing Knowledge and Learning Grant	125	FY13	MDTF	BE
Youth Grant for Youth Employment	846	FY13	ITALY	RE
Energy Sector Clean up	1,165	FY14	Netherlands	RE
Second Youth Development Project - State and Peace Building Trust Fund	2,000	FY14	MDTF	RE
Social Inclusion and Local Development - State and Peace Building Trust Fund	4,900	FY14	MDTF	RE
Agriculture Rural Development Grant	9,200	FY15	Denmark	RE

44. **IFC's committed portfolio for Kosovo comprises three investments totaling US\$15.5 million as well as focused advisory services in key sectors.** Two of the IFC's investments are allocated in the financial sector to strengthen the capacity of a foreign bank to provide credit and financial services to SMEs, while one is in the real sector to support a medium-sized manufacturing foreign company. IFC's advisory services will support public-private partnerships in the infrastructure sectors including the privatization of the distribution arm of the public electricity company (KEK), and solid waste management concession for Pristina municipality. Furthermore, through its Balkans Renewable Energy Advisory Program (BREP), IFC will aim to improve the renewable energy regulatory framework, help renewable energy sponsors to improve their project designs and business plans, and support financial institutions to improve their internal capacities and knowledge on renewable energy. In addition, the Trade Logistics Advisory Services program will provide assistance to improve administrative procedures to simplify trade logistics, aiming to reduce the time and cost of trade and to increase exports. Also, IFC plans to continue its corporate governance program and expand its regional Investment Climate Advisory program to Kosovo. IFC will explore options to deepen its advisory work in the agribusiness sector in the Western Balkans, including Kosovo.

45. **The current net exposure of the Multilateral Investment Guarantee Agency (MIGA), as of October 31, 2011, amounted to US\$53.2 million.** The MIGA exposure is the result of a guarantee that MIGA issued in December of 2010 to ProCredit Holding (PCH) covering its investment in its subsidiary in the Republic of Kosovo. The coverage is for a period of up to 10 years against the risk of expropriation of funds for mandatory reserves held by the subsidiary in the central bank of its jurisdiction. This project is part of a master contract that MIGA has issued to PCH. PCH is headquartered in Germany and is the parent company of 21 network banks (ProCredit group). In Kosovo, ProCredit Bank is a development-oriented full service bank and focuses in its credit operations on lending to micro, small, and medium size

enterprises (MSMEs), thus contributing significantly to job creation and economic development in Kosovo. In 2010, ProCredit Bank continued to be the largest commercial bank in Kosovo (by asset size) and had the largest branch network with 62 offices in 27 different towns and cities across the country. MIGA's continuing support to this project signals the Agency's ability to underwrite projects in the country and support inward FDI in the energy, financial, infrastructure and agriculture sectors, and thus add to the World Bank Group's strategy of encouraging private sector development by addressing real and perceived bottlenecks in the country's operating environment.

Lessons Learned

46. **The Bank's decade-long operational experience, analytical work, and dialogue with national and external stakeholders offer important lessons for future WBG engagement in Kosovo.** On content, three priorities stand out as follows:

- Given Kosovo's extremely high unemployment rates, it is critical to continue to focus on accelerating growth and increasing employment opportunities, especially for youth and women;
- Related to the above, sustained efforts are needed to address weaknesses in Kosovo's business environment as a principal means of fostering private-sector activities and attracting greater volumes of private investment;
- The pattern of growth needs to be consistent with environmental sustainability, including ensuring that natural resources are used in a manner that minimizes damage to human health.

47. **In addition, there is growing concern that the implementation of projects supported by the Bank has been slow.** Addressing these concerns will involve the following:

- Focused outreach to the parliamentarians and civil society during project preparation to ensure full understanding of the objectives and design, thereby facilitating parliamentary approvals of projects.
- Greater selectivity in new operations, focusing on sustaining momentum in key areas where we are already engaged, such as energy, education, employment, and the environment;
- Instituting regular joint portfolio reviews with the Ministry of Finance to resolve bottlenecks and strengthening the Country Office in Kosovo to help to provide continuous implementation support, and capacity building, particularly on modern procurement and financial management.

48. **A recent portfolio review identified opportunities to enhance the gender dimension of selected projects.** The review, conducted by gender and sector specialists, focused on the following projects: (i) Agriculture and Rural Development; (ii) Real Estate Cadastre and Registration; and (iii) the Institutional Development for Education Project. The main goal of the review was to identify opportunities in the projects to incorporate gender in the analysis, design and monitoring and evaluation framework. In addition, it provided knowledge on some good practices in gender mainstreaming, which will contribute to a more systematic inclusion of gender issues in future projects. The review identified the following:

- The *Agriculture and Rural Development* project will increase women's access to training and advisory services to enable them to prepare quality grant proposals and business plans. This would enhance their access to grants to foster competitiveness and growth of their businesses. A detailed report on female beneficiaries in the agricultural and rural development sector was recently prepared and will serve as the basis for the development of a communication and outreach campaign targeting women farmers and entrepreneurs. An important goal of the

campaign is to raise female participation in training to at least one third of the total. In addition, five points have been added to the scoring criteria for rural grant applications submitted by female applicants to encourage women to participate in the grant competition. It is expected that the number of grants awarded to women would double (albeit from a low level of about 4.5%) by 2017. Progress in reaching women beneficiaries will be monitored throughout the project.

- The *Real Estate Cadastre and Registration* project will promote women's property registration by: (i) increasing outreach targeting women to register their land; (ii) ensuring protection of women's property rights on first registration through inter alia redesign of forms to encourage registration of all owners (not just head of household); (iii) modification of municipal cadastre office (MCO) practices to ensure full compliance with the Law on Gender Equity and Family Law in areas of inheritance and land transactions; (iv) specific training for MCOs on women's property rights and sensitivity to the special challenges faced by women in property issues; and (v) ensuring that the project's planned social survey provides a baseline to monitor progress of gender indicators in annual follow up surveys. Based on existing data it is estimated that about 20 percent of land is either individually owned by women or jointly titled (2011). The project will support Government's efforts to achieve an increase in women's land ownership of about an additional 10 percent by 2015.
- In the *Institutional Development for Education* project, school development grants (SDGs) will support selected schools to prepare and implement multiple-year school development plans which focus on the enhancement of the quality of teaching and learning activities. Recipient schools will be selected according to a set of criteria including retention and attendance rates among girls. Specifically, the six criteria for allocating the SDGs (of up to 15,000 Euro per school) will now include the Gender Parity Index which receives 10 out of 100 points. The index is calculated as the number of boys enrolled divided by the number of girls enrolled. In addition, the project will strengthen the capacity of municipalities to track the status of dropout and retention disaggregated by gender. The goal is to ensure that about two thirds of municipalities are able to report these gender statistics through a modern education management information system. This indicator is tracked through the project ISR.

Role of Other External Partners

49. **Kosovo has many multilateral and bilateral donors that provide support to a range of sectors at central and local levels, sometimes in concert with Bank operations.** The EU and USAID are the most important donors, with over 300 projects at national and local levels. For 2011–12, the EU has allocated €140 million for Kosovo from the Instrument for Pre-Accession (IPA) which funds preparatory activities for investment projects. Kosovo is also eligible to receive funds from the EU's Western Balkan Investment Facility (WBIF) for project preparation. Other important partners include Austria, the Czech Republic, Denmark, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, and Turkey as well as the Bretton Woods institutions and the UN system.

50. **Substantial external donor support has been an important input to Kosovo's development efforts, but the Government has only recently put in place a formal mechanism to enhance coordination.** In early 2011, the Government of Kosovo adopted a Regulation on Donor Coordination, increasing the role of the Government in the coordination of development assistance. The Regulation creates the High Level Forum, established as a permanent mechanism for the purpose of analyzing and assessing progress in social and economic development and the efficacy of external aid. The Forum is chaired by the Prime Minister and comprises the highest officials of the Kosovo Government, donor representatives and other relevant agencies. Decisions of the Forum are transferred to sectoral and sub-sectoral working groups, which coordinate development assistance in their respective technical areas. The

Forum monitors the general effectiveness of the system of aid based on indicators defined by the Paris Declaration and defines ways to improve its impact. While still uneven in their effectiveness and impact, the High Level Forum and the sectoral working groups represent an important step forward in bringing more order to external assistance efforts, helping to ensure national ownership of development initiatives and reducing pressures on limited Government capacity.

Table 5: a&b: WBG Portfolio, New Lending FY12–15, CPS AAAs and Trust Funds

Table 5a: WBG Portfolio, New Lending FY12–15, Country Specific CPS AAAs and TFs

<i>Accelerating Growth and Employment Generation</i>		<i>Improving Environment Management</i>	
Ongoing Operations FY12-15 (closing dates)			
Business Environment TA	FY12	Energy Sector Clean-up	FY12*
Education Project	FY13		
Public Sector Modernization	FY13		
Fin. Sector Strength. Market Infrastructure	FY14		
Real Estate and Cadastre	FY16		
Agriculture and Rural Development	FY18		
New Operations FY12-15 (delivery date)			
Sust. Employment Dev. Policy Operation 2 (TF)	FY12	Energy Efficiency and Renewable Energy	FY13
PRG FOR KRPP	FY14	AF for Energy Sector Clean up and Land Reclam	FY13
Education Improvement Project	FY14	Water Supply	FY15
Country Specific non-lending AAA FY12-15 (delivery date)			
ROSCs*	FY12	Country Environmental Analysis	FY12
Privatization of Energy Distribution (KEDS) IFC	FY12	Water Strategy Follow-up/Round Table	FY12
Country Fiduciary Assessment and GAC support	FY12-15	Solid Waste Management Concession IFC	FY13
IFC PPPs in Infrastructure	FY12-15		
Financial Sector Assessment	FY13		
Statistical and Analytical Capacity TA	FY12-13		
Program. Public Expenditure Review	FY13-15		
Employment and Social Protection TA	FY13-15		
Country Economic Memorandum	FY15		

* ROSCs on Insolvency and Creditor/ Debtor Regimes; Review of Accounting & Auditing Practices in Kosovo; and Bank and Microfinance Governance Assessment

Table 5b: Regional Western Balkans Non-lending (AAA) and Trust Funds FY12-15(delivery date)

Monit. & Evaluation (EC TF)	FY12-13	Smart Safety Nets	FY13
TA Scienc., R&D/Innov. (EC TF)	FY12-14	Health Finance	FY14
Program. Financial Sector Dev	FY12-14	Employment and Jobs	FY14
Trade Logistics IFC	FY12-15	Energy Strategy	FY14
Renewable Energy Advisory IFC	FY12-15	Investment Climate IFC	FY13-15
Programmatic Gender Monit	FY12-15	Public Fin Mgt/PEFA (EC TF)	FY13-15
Programmatic Poverty Monit.	FY12-15	Climate Change	FY15
Corporate Governance IFC	FY12-17		

51. **The WBG works closely with many of these external agencies, including through joint analytical work and co- or parallel-financing of operations.** For example, the Bank is partnering with the IMF and USAID to provide TA to Kosovo's financial sector, with the Netherlands, US and EC in the energy and environment sectors, with Austria in public financial management and with DFID and SIDA to build capacity for statistical analysis. The Bank and other partners worked towards developing a Sector-Wide Approach (SWAP) for the education sector, partly through conduct of a joint feasibility study under the leadership of the Ministry of Education, Science and Technology. A group of nine

external partners have been closely involved in the design and implementation of the Sustainable Employment Development Policy Program (SEDPP) and have contributed substantial grant resources for its two budget support operations. Finally, given the importance of the EU perspective for Kosovo, all World Bank operations are aligned with the criteria for EU accession.

52. **Further possibilities for cooperation between the EC, European IFIs, and the Bank in the Western Balkans have been opened by the agreement in June 2011 to grant the Bank associate membership in the WBIF.** The WBIF is a financing mechanism designed to pool grants, loans, and expertise from the EC, IFIs, and bilateral donors to prepare a common pipeline of priority investment projects that could be financed by any of the WBIF donors. While in other Western Balkan countries, the Bank cannot act as the lead IFI for WBIF-financed project preparation activities, an exception to this rule has been agreed for Kosovo, where the Bank—as the only IFI that is fully operational in the country—has been encouraged to play a leading role in several areas. The Kosovo Government has already submitted a number of grant proposals to the WBIF Project Financiers Group including for studies on energy efficiency in public buildings, feasibility and environmental impact analyses for strengthening waste management (covering municipal and hazardous waste) and feasibility studies for protection of the 50-km long Ibër Canal. In addition, Kosovo will benefit from a number of regional proposals submitted by SEE Governments including for a study to examine development options (including financing options) for implementation of an Energy Community Gas Ring through public-private partnership consortia. These proposals will be reviewed by the WBIF Project Financiers Group in April 2012 and those which are positively assessed will be forwarded to the Project Steering Committee for final decisions in June.

B. WBG Country Partnership Activities for FY12-15

53. **The main objectives of the CPS are to support Kosovo to (i) accelerate broad-based economic growth and employment generation; and (ii) improve environmental management.** The goal of accelerating broad-based growth and employment creation is essentially a continuation of the priorities established in previous country strategies. The second objective—promoting better care of the environment—was less prominent in previous assistance strategies. It is being given higher priority now because of wider recognition within Government and its development partners that sustainable, environmentally-sensitive use of Kosovo’s major natural resources and better management/clean-up of environmental hazards are critical elements of the effort to improve the population’s living standards and create sustainable employment. Moreover, in light of the findings of the EC’s Progress Report on Kosovo, it has become clear that significant progress will be needed in environment if the country is to achieve its longer-run objective of closer integration with the EU.

54. **The CPS has been shaped in important ways by consultations with a wide range of relevant stakeholders.** Apart from its ongoing discussions with the Government, the Bank held several discussions on the CPS with the President of the Republic, Parliament, the private sector, civil society and international development partners. All the groups consulted stressed the importance of addressing medium-term energy security and many were fully supportive of the balanced strategy included in the CPS. Some civil society groups, however, were critical of any support for the development of a new lignite-fuelled power plant to replace the existing (highly-polluting) Kosovo A but nonetheless welcomed other aspects of the CPS energy program aimed at reducing energy losses, promoting energy efficiency and developing renewable energy sources to the extent feasible. A detailed summary of a full-day consultation with civil society representatives in early April is given in Annex 2. In addition to energy, a number of other areas were emphasized during consultations and have been included in the CPS program. For example, the President viewed the economic empowerment of women as a particularly important challenge for Kosovo, various parliamentary leaders suggested the need for a clear focus on agriculture and water supply and the private sector suggested the need for continued emphasis on improving the business climate.

55. **Taking into account the lessons learned from past experience in Kosovo and the limited lending envelope, the proposed new lending under the CPS program is selective.** New lending will support fewer, larger operations in sectors/sub-sectors where the WBG has a comparative advantage by virtue of (i) previous experience in Kosovo or relevant work elsewhere in the region; (ii) having undertaken analytical work that can inform lending; and (iii) synergies between IDA, IFC, and MIGA. Program design is also influenced by the potential for close cooperation with other external partners, particularly with a view to supporting Kosovo’s aspirations for EU integration.

Expected Outcomes

Pillar I: Accelerating Broad-Based Growth and Employment Generation

56. **The first pillar of the CPS strategy aims at accelerating broad-based and sustainable growth through actions in six main areas:** (i) strengthening infrastructure, especially energy, including through promoting private sector participation in large projects via PPPs; (ii) improving the business climate, supporting the private sector and the financial sector; (iii) strengthening agriculture development; (iv) continuing to invest in education and skills; (v) promoting sustainable employment and inclusion; and (vi) strengthening public financial management and anti-corruption efforts.

(i) *Strengthening infrastructure, with a focus on energy*

57. As discussed in Section III, achieving an accelerated growth path in Kosovo will involve substantial investment in infrastructure and the adoption of PPP approaches for the implementation of large-scale projects. While Kosovo’s needs with respect to infrastructure are vast, resource limitations dictate that the Bank supports the sectors selectively, with financial support focused largely on the energy sector. In addition, the Bank and IFC would support the development of other infrastructure services through studies and other advisory services. IFC would also seek to selectively provide financial support to private firms involved in infrastructure projects in Kosovo in areas such as water, transport, solid waste disposal and energy.

58. **The Government has developed a comprehensive strategy for the energy sector.** There is an urgent need to address problems in Kosovo’s energy sector because (i) frequent power cuts constrain socioeconomic development (by impeding investment/job creation, disrupting social service provision and affecting heating availability in winter with consequences for health conditions); (ii) mismanagement of the sector results in a drain on Kosovo’s scarce budgetary resources; and (iii) the outdated technologies employed in power generation have a severely negative impact on the environment (both in terms of air pollution and carbon emissions). To address these issues and, taking into account the limited opportunities to cost-effectively import electricity from the SEE region, the Government—working closely with the WBG, EC, and USAID —has identified a strategy to provide more reliable energy supplies to households and businesses. The strategy is based on development of Kosovo’s domestic lignite, hydro and other renewable resources, and reducing consumption through demand-side management and end-use efficiency improvement. **The key elements of the Government’s strategy,** are the following:

- ***Phased closure of the 5 inefficient outdated and highly polluting Kosovo A power generation units*** by the end of 2017. Since the 40-year old generation units cannot economically be brought into compliance with the EU Directive for Large Combustion Plants, they need to be closed by 2017 at the latest, as required under the Energy Community Treaty. Decommissioning of Kosovo A will be initiated as soon as feasible with possible support from the EC and other donors.

- ***Development, through private participation, of a state-of-the-art power plant—the New Kosovo Power Plant (KRPP) and the associated Sibovc SW lignite mine to replace Kosovo A.*** The KRPP would comprise two units of 300 MW each, the minimum necessary to enable retirement of Kosovo A, serve still-unmet domestic demand and barely meet demand growth, even under an aggressive loss reduction, tariff adjustments, and demand management regime.
- ***Rehabilitating Kosovo B to comply with EU environmental standards through privatization of that plant.***
- ***Establishing cost recovery tariffs (with appropriate life-line pricing provisions and strengthened social protection programs to protect the poor)*** as an important element of the effort to reduce the drain on scarce budget resources and encourage energy savings by users.
- ***Privatizing KEK Distribution as a means of improving its efficiency*** and gaining better control over the rampant losses of electricity due to technical losses and theft.
- ***Improving end-use energy efficiency*** through investments in energy efficiency in public buildings and household incentives for energy saving measures.
- ***Developing the country’s limited hydropower and other renewable resources.***

The European Commission and the Bank plan to co-host a donor conference in September 2012 to raise financing for the closure of Kosovo A and for energy efficiency and renewables projects.

59. **When fully implemented, the Government Strategy would yield significant environmental benefits.** Compared to business as usual, the proposed strategy would put Kosovo on a lower carbon path. Demand-side management and efficiency improvements through privatization of electricity distribution are expected to reduce technical and commercial losses from the current level of about 40 percent to around 13 percent by 2025. Improvement in end-use energy efficiency will be supported through an IDA project. The new 600-MW KRPP—together with a rehabilitated Kosovo B and development of the full hydropower potential available—would, by end-2017, replace (i) Kosovo A; (ii) imports of about 500 GW from the regional grid; and (iii) about 150 MW in small diesel generation back-up supply. This change is expected to yield significant environmental benefits by reducing the annual emission of dust by more than 90 percent (from a current level of 20,000 tons), and nitrogen and sulfur oxides by about two thirds from their current very high levels (nitrogen oxide about 12,000 tons and sulfur oxide about 14,000 tons) resulting in significant improvements in air quality in Pristina, with concomitant reductions in adverse health impacts on the population.

60. **The Government has requested the WBG to provide support for several elements of the above strategy, including provision of a Partial Risk Guarantee (PRG) to bidders on the development of KRPP/Sibovc and rehabilitation of Kosovo B.** To determine its response to the Government request, the Bank appointed a *panel of external experts* to assess whether potential Bank support for KRPP under the aforementioned Government strategy would be consistent with the Bank’s “Strategic Framework for Development and Climate Change” (SFDC). The expert panel report, issued in January 2012, concluded that the proposed KRPP/Sibovc project complies with the six criteria of the SFDC. It also recommended several complementary actions, all of which are fully consistent with Government’s overall energy strategy. The Panel’s main recommendations involve: (i) improving energy efficiency, including through regulation to promote energy efficiency in new building construction; (ii) reducing technical and commercial losses, partly through privatization of electricity distribution; (iii) further emphasizing renewables, including assessment of wind potential, increased use of solar power for water heating, and the adoption of regional strategies for renewables and natural gas; (iv) including externalities in future analysis of energy projects and preparing an environmental baseline; (v) considering the use of lignite drying to increase the efficiency of the power plant; and (vi) ensuring openness and transparency on energy projects through a well-developed consultation process.

61. **In light of the conclusions of the Expert Panel, the Bank will proceed with preparation of support for the KRPP/Sibovc investment through offering an IDA PRG and possible complementary support from IFC and MIGA.** WBG credit-enhancement support (including the PRG) would be offered on a “non-binding, in principle” basis, in conjunction with issuance of Government’s Request for Proposals (RfP) to pre-qualified bidders on the proposed project. A final decision on WBG support would be subject, inter alia, to compliance with all applicable WBG requirements, including those related to social and environmental issues, review and acceptance of the ownership, management, financing structure and transaction documents and approval by the management and Executive Directors of the World Bank Group. The PRG offered by IDA for the KRPP/Sibovc project would amount to approximately US\$58 million (of which, only US\$14.5 million or 25 percentage would be counted against Kosovo’s IDA-16 allocation). This would help to mitigate investor perception of the high risks of investing in Kosovo and enable bidders to raise commercial financing at lower cost and with longer maturities. IFC would be prepared, in principle, to consider providing financing for its own account to the Operator, as well as assist in mobilizing additional funds from other international financial institutions and from commercial banks where possible, subject to its investment criteria and approvals. IFC will continue to work with the Kosovo Government as the lead *transaction adviser for the privatization of KEK Distribution*, coordinating closely with USAID, which has been supporting management improvements at the enterprise. In addition to serving as transaction advisor for KEK distribution, IFC would also coordinate closely with the Bank and MIGA to seek additional ways of supporting the Government’s energy sector strategy in particular by bringing to bear its global expertise to attract serious strategic investors to the sector. A Poverty and Social Impact Assessment (PSIA) would be conducted to determine ways of mitigating the impact of higher tariffs on poor households—including through life-line pricing and strengthened social assistance programs.

62. **The Bank will also support several other elements of the Government’s energy strategy, including energy efficiency and development of renewable energy, reduction of environmental hazards, monitoring of air, soil and water quality associated with the power plants and strengthening capacity to regulate the energy and environment sectors in a manner consistent with EU standards.** Support in these areas—including an Energy Efficiency and Renewables Project and Additional Financing for the Energy Sector Clean-Up and Land Reclamation Project—is described in detail in Pillar II.

63. **CPS outcome for energy: WBG support for Government’s energy strategy will significantly strengthen sectoral production capacity, efficiency and financial and environmental sustainability.** Given the time frame necessary for implementation of the projects, this outcome is likely to be realized in the next CPS. The PRG for KRPP/Sibovc would have an important impact on electricity availability and successful conclusion of the privatization of KEK Distribution would result in increased efficiency as a result of reduced technical and commercial losses (including theft). These two operations together would also significantly lessen the need for budgetary support to the energy sector, thus freeing up scarce budgetary resources for other key uses. The Energy Efficiency and Renewables Project would help to achieve significant reductions in the need for thermal power generation.

(ii) Promoting private sector development and financial sector strengthening

64. **The second main element of the growth pillar helps Kosovo to increase its attractiveness to both domestic and foreign business investors by supporting a number of actions to improve the regulatory and institutional frameworks for business entry and operations and to strengthen the financial sector.**

65. **CPS outcome: The environment for business operations has improved as a result of simplified regulations and processes and rules for business entries/exits and external trade has been**

simplified: The on-going *Business Environment TA* project is successfully helping to reduce regulatory compliance costs for businesses, harmonize business regulations and the licensing framework at the central and municipal level, and secure immovable property rights. Building on a component of the ongoing Business Environment TA project, the *Real Estate and Cadastre Project (RECAP)* supports, inter alia, (i) the Municipal Cadastre Offices (MCOs) by financing physical upgrades to facilities and completing and updating real estate cadastre and registration records in the Immoveable Property Rights Register; (ii) the transformation of the Kosovo Cadastre Agency (KCA) into an autonomous and self-financing body with capacity to work with municipal offices and ensure uniformity in property transactions; and (iii) the KCA to manage the project, monitor/evaluate the project's progress, organize public information events, and coordinate donor support. In addition to the annual analysis of Kosovo's business climate within the framework of the joint Bank/IFC Doing Business Reports, IFC advisory assistance could include: (i) regulatory simplification on the national and sub-national levels to help to reduce the cost and risk of doing business; and (ii) addressing the regulatory impediments for business start up and operation as well as for the efficient flow of goods into and out of Kosovo.

66. **CPS outcome: Local corporations in productive sectors are already growing at an accelerated pace:** IFC would support continued growth of competitive companies in agribusiness, manufacturing and services sectors. In particular, IFC will help local corporations overcome financing constraints through long-term financing combined with related advisory services. In this regard, IFC expects to support 1–2 projects in these sectors per year. MIGA could also provide guarantees to SMEs and small-scale agricultural and services projects through its Small Investment Program.

67. **CPS outcome: The regulatory and institutional frameworks for the financial system have been substantially strengthened and a modern deposit insurance scheme is in place.** The WBG, working with key partners such as the IMF and USAID, has been heavily involved in supporting the regulatory and institutional reform of Kosovo's financial system over the past few years and will continue its support during this CPS through the ongoing IDA-financed *Financial Sector Strengthening Market Infrastructure Project (FSSMIP)*, approved by the Board in mid-2011. Among other activities, the project has already helped to establish a Deposit Insurance Fund, is reforming the payments system, supporting the implementation of an RTGS and developing a business continuity center. A corporate governance review of financial institutions undertaken last year will be followed up by two **ROSCs** on accounting and auditing and insolvency and creditor rights, both of which will be completed in FY12. AAA will also be provided during FY12–13 through a FIRST grant to harmonize existing regulations and procedures with Kosovo's new Banking Law, and to ensure conformity with EU practices. In addition, at Government's request, the Bank and IMF will conduct a *Financial Sector Assessment Program (FSAP)* review in FY12–13, which will assess strengths and potential vulnerabilities and means of risk reduction. While the Bank has focused on strengthening the legal, regulatory and institutional framework for the financial sector, IFC will explore the possibility of working with the banks with a focus on agribusiness, gender finance, climate change and SMEs. IFC will also consider supporting the microfinance institutions.

68. **CPS outcome: SME's have gained increased access to credit.** With respect to financing for SMEs as well, the Bank and IFC will work closely together, with the Bank concentrating on the regulatory framework and IFC providing financing and advisory services to support SME-oriented private financing institutions, as well as competitive SMEs. One key Bank input during the CPS period will be a Corporate Governance Review of Banking and Micro Finance Sector, using a methodology that was developed by the Bank, based on inputs from other supervisory and rating agencies, but substantially leveraging off of the newly issued Basel Committee's Principles for Corporate Governance. In addition, the Bank, utilizing resources from the Balkan TA facility will provide technical support to regulatory framework for microfinance. This work, which will be undertaken in FY12, will involve working with the Central Bank to develop the best structures for micro-finance from a regulatory viewpoint. For its part,

IFC will seek to strengthen Kosovo's micro-finance institutions, in conjunction with a suitable strategic partner.

(iii) Strengthening agriculture development

69. **CPS outcome: Agricultural growth and competitiveness have been boosted through provision of new technologies and rural development grants to agricultural producers.** The ongoing *Agriculture and Rural Development* project seeks to increase agricultural production and competitiveness in Kosovo through two main sets of activities: (i) establishment of a program of rural grants to encourage investment in agriculture and promote the use of improved agricultural technologies; and (ii) strengthen the knowledge of farm operators, agro-processing enterprise managers and municipal advisors to effectively plan investments and utilize the financial support available under the rural grant program. During the FY12–15 CPS period, the project's grant program will be expanded through a *Danish grant* of 50 million kroner (about US\$9 million equivalent), thus nearly doubling the resources available for rural investment. Additionally, the project will be reviewed during this CPS period to ensure that it reaches out adequately to women as well as men, with adjustments made to its outreach and capacity building components to increase gender sensitivity as appropriate. As with the original project, Danish grant funds will be managed through a Managing Authority (MA) and Paying Unit (PU) established with the Ministry of Agriculture, Forestry and Rural Development. The MA and PU have been designed to be fully in line with the requirements for Paying Agencies under the EU's Instrument for Pre-Accession Assistance for Rural Development (IPARD) so that they will be competent to satisfactorily manage IPARD funds once Kosovo becomes eligible to receive them. In addition, through its regional agribusiness advisory project, IFC will contribute to increased Kosovo's agribusiness sector competitiveness and exports.

(iv) Investing in education and skills

70. **CPS outcome: The relevance and quality of education has been strengthened.** Kosovo's education system currently falls short in terms of quality and relevance. The Bank-supported ongoing *Institutional Development for Education Project* (IDEP) for Kosovo—developed in partnership with the Ministry of Education and a number of donors—is already helping Government in the implementation of the strategy for the development of pre-university education in Kosovo and the strategy for the development of higher education. Its main focus is on strengthening the systems, institutions and management capacities needed for education quality improvements. It also encompasses infrastructure planning and investment improvements and institutes a school grants program to support demand-driven initiatives throughout the school system. When designed in FY08, the project did not specifically target issues of girls' access to secondary and post-secondary education, but a gender assessment will be undertaken to capture the extent of and identify the factors exacerbating gender disparities to inform future projects. In addition, one of the criteria for the allocation of school development grants is the extent of gender disparities (enrollment and retention rates), and the project will document the impact of these school grants. The Education Improvement Project planned for this CPS period will continue broader efforts in improving education quality and efficiency but also include a clear focus on means of improving girls' access to secondary and post-secondary education. The new project, currently programmed for FY14, will be financed through an IDA credit of about US\$10 million.

(v) Promoting Sustainable Employment and Inclusion

71. **CPS objective: Policies and institutions increasingly promote sustainable employment.** The Bank is preparing a second and final operation in support of the *Sustainable Employment Development Policy Program*. The program's multi-pronged approach expands on efforts in other CPS areas and supports actions to strengthen policies and institutions governing (i) macro-economic and public financial management; (ii) the investment climate; (iii) labor markets; (iv) education, training and skills; and, (v)

social protection. In its final phase, the program will strengthen procurement processes, salary systems for civil servants and the monitoring of expenditures. It will reduce barriers to register businesses, improve the access of customers to credit data, and establish a comprehensive regulatory framework for Banks and other financial institutions. In addition, the final phase of the program will expand public works programs, strengthen other labor market programs, and establish a comprehensive regulatory framework for the labor market. It will provide for a national qualifications framework and support the accreditation of vocational training institutions; furthermore, it will improve the targeting and management of social assistance programs. Following the second Sustainable Employment Development Policy Operation, a **programmatically analytical advisory activity** will provide technical assistance throughout the CPS period to further strengthen the policies and institutions governing the labor market, training and skills development, and social protection, including health financing.

72. **CPS Outcome: Social inclusion in poor communities and marginalized population groups is supported.** Two grants from the peace and state building fund are supporting social cohesion through: (i) rehabilitation of small-scale social and economic infrastructure in the poorest villages and in mixed/minority communities as well as promoting MSMEs in a socially inclusive manner; and (ii) youth services, youth employment and inter-ethnic collaboration among youth, especially from marginalized and vulnerable groups.

(vi) Strengthening Public Financial Management, Procurement and Anti-corruption Efforts

73. **CPS outcome: Public financial management has been modernized particularly with respect to public investments monitoring, efficient payroll management, transparent procurement and anti-corruption actions.** Complementing the public sector management improvements included in the SEDPP (i.e., strengthening public investment management, consolidated procurement and transparency in payroll management), the Government is also seeking to further improve public sector governance by (i) implementing a public financial management reform action plan; (ii) increasing the efficiency of procurement through e-procurement and consolidated procurement (Quick Gains reform); and (iii) reforming the civil service (see Box 3 below). The Bank is supporting these reform efforts through the ongoing *Public Sector Modernization Project* (PSMP). In addition, the Bank has recently completed a *Country Fiduciary Assessment* (CFA) FY12 report and shared a draft with the Government.

74. **In order to follow up on the key recommendations stated in the CFA, the World Bank—in cooperation with other development partners—would support the Kosovo Government with technical assistance** to assist the Government in (i) monitoring enforcement of the PPL, improving procurement implementation and contract management, and building capacity within the procuring authorities and private sector; (ii) establishing a system for the performance evaluation of procurement officers and professional growth of procurement officers; (iii) conducting a PEFA assessment and using its findings to refine the PFM reform action plan; and (iv) strengthening the capacity of the Central Procurement Agency (CPA) to conduct procurement of “common use” goods. In addition, the project would work with the Anti-Corruption Agency to follow-up on the integrity related recommendations and issues emanating from the CFA, working in partnership with other accountability institutions and donors. Throughout the CPS period, the Bank will track the Government progress in implementing the CFA recommendations and will maintain high level of vigilance in ongoing and planned operations through thorough fraud and corruption assessments of each operation, implementation of smart controls and accountability measures, and enhanced fiduciary reviews during project implementation.

Box 3: Public Procurement Laws, Country Fiduciary Assessment, Corruption and Governance

In the area of public procurement, the Government's main goal is to align its legislation with the EU Procurement Directives. To that end, the Public Procurement Law (PPL) in Kosovo has undergone frequent changes in the recent years aiming increased alignment and improvement of the overall institutional framework in public procurement. The World Bank conducted a Country Fiduciary Assessment (CFA) in Kosovo in 2010 which went through 2011. The assessment report is expected to be finalized in December 2011. Amid the assessment, a new PPL was approved by the Assembly on September 30, 2010 and was further amended on September 19, 2011. The CFA team reviewed both versions of the PPL and provided the Government with comprehensive comments, majority of which were addressed by the Government in the final version. Generally, the current PPL reflects adequately the main principles of a sound procurement system and is consistent with international good practices.

The EU Commission refers in its 2011 progress report as “this version of the PPL addresses most of the deficiencies of the previous law and significantly increases the compatibility with EU standards”. The main institutional changes brought by the current amendment include inter alia: transformation of the Public Procurement Agency ("PPA") from an independent agency with mixed roles and responsibilities to a Centralized Purchasing Agency (CPA) within the Ministry of Finance (MoF) to be in charge of conducting centralized procurement; and the contract signing was further clarified to involve senior staff of the contracting authority in signing high value contracts in addition to the procurement officer.

However, Kosovo public procurement system is still in need of improving its performance. The legislative framework needs further refinements as it needs to be supplemented by the necessary implementing regulations, procurement manuals and tender documents including general conditions of contracts which have not been updated in parallel with the PPL. Monitoring enforcement of the PPL, improving procurement implementation and contract management, building capacity within the procuring authorities and private sector based on training needs assessment are areas of need of improvement. The Government also needs to establish a system for the performance evaluation of procurement officers and to include in the civil administration a clear path for growth of procurement officers.

The public financial management system in Kosovo, in general, has shown steady improvements since independence was declared. The key strengths of the system are the sound legal framework, integrated central treasury system and an increasingly effective external audit office. The strengths are offset by limited professional and technical capacities and gaps in implementation. There is considerable scope for improving the quality of budget planning and preparation, internal financial control and audit, debt management and capital investment management. Kosovo authorities are aware of their limitations and progress is occurring, with support from international bodies, including the World Bank.

The Government recognizes that corruption is still widespread with several high profile Cases currently under investigation. The key areas affected include procurement, civil works, transport, energy, health and land administration. Progress has been made on Procurement Code of Ethics, launch of an Internet website carrying full details of public procurement, and commencement of a procurement training program. Further work is still needed to develop a debarment mechanism, institute due diligence on bids reviews, scale-up compliance reviews, and build capacity to successfully prosecute high-profile Cases.

75. **CPS outcome: The capacity for statistical data collection and relevant analysis has been reinforced and data are being used more systematically by policymakers.** Poverty monitoring would be supported by collection of data from a number of sources, including a donor-financed AAA activity to support GOK to collect and analyze household level data. Under this AAA activity, the Bank will provide TA in three focal areas: monitoring poverty, inequality, gender differences and exclusion; strengthening capacity for data collection and analysis; and addressing emerging knowledge gaps. There will be a strong focus on expanding the use of data collected by the Statistical Office of Kosovo (SOK), and other data sources by a wider group of analysts and, ultimately, decision-makers in Kosovo, including through the creation of a data users' network comprising analysts from SOK, various Government departments, academic institutions and think-tanks. A series of training events and knowledge-sharing workshops are planned to help to establish and nurture this network, drawing in large part from experiences in neighboring countries, with appropriate adaptation to the Kosovo context. The activity will be complemented by and coordinated with Bank-financed AAA to monitor gender, which will be ongoing throughout the CPS period.

Pillar II: Improving Environmental Management

76. **The second pillar of the CPS strategy seeks to improve environmental management,** particularly by supporting the Government to increase energy efficiency and the use of renewables, reducing environmental hazards, enhancing water supply and moving towards harmonization with EU environmental standards. The main activities envisaged for the CPS period, are described below:

(i) Improving energy efficiency and increasing energy production from renewable sources

77. **CPS Objective: Efficiency in energy use and generation from renewable resources has been increased, thus reducing carbon emissions.** The Government and the Bank are developing a proposed US\$32.5 million *Energy Efficiency and Renewables Project* (FY13), modeled on similar Bank-supported projects in the region. GTZ has trained about 50 energy auditors and USAID has completed some demonstration projects retrofitting schools in Kosovo. In addition, the Government has submitted an application to the WBIF for grant funding for an energy audit and preparation of feasibility studies for energy efficiency investments in public service buildings (Government offices, schools, hospitals, or old-age homes). Building on these activities, the project would aim to retrofit public buildings to substantially reduce their energy consumption and strengthen the supply-chain through training of energy auditors, contractors, vendors and equipment suppliers. The project would also seek to reduce pollution and emissions caused by widespread use of liquid-fuel generators and firewood for household heating *inter alia* by providing households with incentives to improve energy efficiency and adopt cleaner heating methods. In this regard, the World Bank Institute is helping with assessment of market potential for energy efficiency investments, cost estimates and financing options, institutional capacity strengthening, and preparation of an energy-efficiency diagnostic for the Municipality of Pristina. In addition to efficiency investments, the proposed project will support development of renewable energy sources through exploration of geothermal and wind potential, preparation of feasibility studies for projects to be offered to the private sector, developing model concession agreements, and potentially provision of a credit enhancement to the local banks to finance mini-hydro and solar power plants, as well as renewable projects for households (e.g., solar water heating and small biogas for heating).

78. **In designing the renewable energy component of the Energy Efficiency and Renewables Project, the Bank will coordinate closely with the IFC's Balkans Renewable Energy Advisory Program (BREP), launched in 2010.** BREP is already operational in Albania, Bosnia and Herzegovina and FYR Macedonia. IFC intends to expand BREP to Kosovo, Serbia, and Montenegro. BREP objectives are to improve the renewable energy regulatory framework, help renewable energy sponsors to improve their project designs and business plans, and support financial institutions to improve their internal capacities and knowledge on renewable energy. BREP's Advisory Services in Kosovo will be focused on the following areas: (i) at the regulatory level, the program will help with the creation of a standardized PPA, grid connection agreement and concession contract for small hydro power projects, improvements in primary and/or secondary legislation, and better alignment of regulation from different sectors related to small hydro project development (water management, forestry, environmental regulation); (ii) at the firm level, the program will help with better design of small hydro projects, wind farms (if there is any investors' interest), and biomass plants (with proper incentive support); (iii) in terms of financing, since there is limited interest from local Kosovo banks in developing renewable energy products, the program will closely coordinate with IFC's investment services in both the financial market and infrastructure sectors to explore investment opportunities in renewable energy projects.

(ii) Reducing environmental hazards improving environmental monitoring and management and improving priority-setting

79. **CPS Objective: Environmental hazards around the site of the Kosovo A and B power plants have been significantly reduced and there is substantially strengthened capacity for environmental monitoring.** The Bank and donor-financed *Energy Sector Cleanup and Land Reclamation Project* (CLRP) has been under implementation for several years and was planned to close in FY12, having met all its development objectives. These original expected outcomes were partial in some cases (due largely to funding limitations) implying that a part of the work on ash dump remediation and land reclamation would remain for completion by Government after the project's original closing date (June 2012). However, given the importance of the clean up to the quality of life of the communities surrounding the power plant site and feedback from consultations with civil society representatives, this CPS includes a proposed Additional Financing for the Energy Sector Clean up and Land Reclamation Project (US\$3.2 million), which, inter alia, will finance: (i) extension of the coverage of the clean-up and land reclamation efforts at the site of the Kosovo A and B power plants; (ii) environmental monitoring of air, soil and water associated with power generation; (iii) strengthening the capacity of Kosovo's environmental and energy regulatory authorities; (iv) environmental and social assessments for energy projects; and (v) preparation of a low carbon growth strategy and a greenhouse gas (GHG) inventory. The AF will be complemented by a Netherlands Government grant of about US\$1,165,000.

80. **CPS outcome: Broader appreciation of environmental issues and of strategies for addressing them throughout Government and among stakeholders.** At Government's request, the Bank is undertaking a *Country Environmental Analysis* (FY12), with the objective of establishing environmental development priorities based on an analysis of the state of the environment and estimates of the economic costs of environmental degradation. The study will be based on internationally derived epidemiological research regarding the relationship between the affected population exposed to environmental issues and the increased risks of health impacts in order to estimate the disease burden in Kosovo caused by environmental neglect and its associated economic impacts thereof. While the figures derived from these analyses will be indicative rather than precise, they will provide a reasonably good picture of the costs of environmental neglect and propose practical approaches for reversing past practices to more environmentally sustainable ones. Following discussion of the draft report with the Government (late FY12), there will be an intensive dissemination effort within Kosovo—involving a wide range of stakeholders at national and local levels—to both discuss the study's findings and begin to develop effective, nationally-owned strategies for prioritizing among issues and developing practical action plans to address them through legislative, regulatory and institutional changes.

(iii) Increasing access to water

81. **CPS Objective: Better and more equitable access to water of appropriate quality according to use.** In FY11, the Bank undertook a comprehensive water sector assessment at Government's request to serve as a key input to the country's national water resources strategy. Inter alia, the water assessment reviewed the potential for using water resources to foster productive investments and analyze current and projected water uses in different sectors—water supply, sanitation, irrigation, hydropower and industrial—from a spatial planning perspective. Taking into account the study's recommendations, the Government has requested that the Bank finance a *Water Supply Project*. This project has been included in the proposed CPS program for FY15, for an amount of US\$18 million. The project would help ensure the security (in terms of adequacy of supply and quality) of water in the Pristina region (including energy sector, business and domestic water consumption needs). At this stage, it is expected that the Water Supply project will include some of the following activities: (i) securing of uninterrupted water supply of good quality from the Ibër-Lepenc canal through repair of the canal, protection against physical damage, short-term storage along the canal, and improved canal management; (ii) protection measures for drinking water reservoirs; and (iii) investments to improve the quality of water supply to communities living in the vicinity of the power plants.

C. The CPS Financing Program

82. **Although the program of Bank supported operations amounts to over US\$180 million, a significant proportion of these resources are derived from special grants and TFs.** The overall size of the IDA envelope for the first three years of the CPS period is about SDR 36.8 million (US\$58 million). An additional SDR 11.3 million or US\$18 million equivalent is included for FY15, but since these funds will depend on IDA 17 they are only notional at this stage. Actual IDA allocations beyond FY12 will depend on: (i) total IDA resources available, (ii) the country's performance rating; (iii) the performance and assistance terms of other IDA borrowers; (iv) the terms of IDA's assistance to Kosovo (grants or credits); and (v) the number of IDA-eligible countries. IDA allocations are made in SDRs based on performance, and the US dollar equivalent is dependent upon the prevailing exchange rate.

83. **The allocation of the IDA-16 resources of SDR 36.8 million (US\$58 million) and the notional amount of SDR11.3 million (US\$18 million) is distributed as shown in table 6.** At this stage, we expect that the IDA contribution for energy sector PRGs will amount to approximately US\$14.5 million, allowing for IDA partial risk guarantees up to US\$58 million. This amount will likely be supplemented by IFC and MIGA as previously discussed.

Table 6: Proposed Lending Program by Fiscal Year (in US\$m)

	IDA	Grant-funded operations	TOTAL
FY12			
SEDPO2	0	47	
Agriculture and Rural Development AF		9.2	
<i>FY12 Total</i>	0	56.2	56.2
FY13			
Energy Efficiency and Renewable Energy	32.5	0	
AF for Energy Sector Clean-up and Land Reclam	3.2**	0	
		0	
<i>FY13 Total</i>	35.7	0	35.7
FY14			
Education Improvement Project	10		
PRG for KRPP and Kosovo B	14.5(58.0)*	0	
<i>FY14 Total</i>	24.5	0	24.5
FY15			
Water Supply	18	0	
<i>FY15 Total</i>	18	0	18
<i>Overall Total</i>	78.2	56.2	134.4

*Only 25 percent of total PRG amount is counted. **includes US\$2.2 m re-allocated from cancelled LPTAP funds.

V. Risks

84. *The implementation of the FY12-15 CPS entails four main risks as follows:*

- **Kosovo's uneven track record in fiscal management raises questions about medium-term macroeconomic stability, and an economic downturn in Europe would exacerbate this risk.** The Government's growing experience in macro-economic management has been supported by

several external partners, notably the IMF, the EC, USAid, and the Bank. Continued financial and advisory support—together with the difficulties in obtaining financing from abroad— should convince policymakers to maintain a prudent fiscal stance. Moreover, an IMF SBA is expected to be in place for a 20 month period beginning in April 2012. The SBA should help to reduce fiscal risks, especially in the event that Kosovo’s economy is impacted by an economic downturn in Europe (which could result in lower revenue and remittances). It should be noted, too, that Bank support through the PSMP and SEDPP actions will help to improve priority-setting for public expenditures and improve budget discipline over time.

- **The WBG planned support for the KRPP has generated opposition from some civil society groups and hence involvement in the project entails reputational risk.** While investment in Kosovo’s energy sector is critical to growth, job creation and poverty reduction, the Bank’s involvement in the new lignite-fuelled power generation plant has already generated controversy among some civil society groups and this opposition is likely to continue throughout the CPS period. This risk is being addressed through ensuring transparent processes and regular dialogue/outreach throughout project development.
- **An additional risk is that, given continued turmoil in financial markets (especially in Europe), power project financing may not be easy to obtain.** The availability of WBG guarantees should to mitigate this risk. Credit enhancement from other multilateral lenders would also help catalyze needed funds from the private sector.
- **Kosovo’s governance and political structures are fragile and could destabilize under certain shocks.** Kosovo’s young and relatively untested institutions render it vulnerable to domestic unrest and political pressures. The tense situation in Northern Kosovo, though currently contained to about 4 municipalities, demonstrates this risk. Moreover, Kosovo’s governance systems still lack full transparency, accountability, and viability. Governance and political developments will need to be closely followed as related problems could undermine external development support activities. Actions to support improved public financial management included in the CPS and in the ongoing PSMP project should help to reduce this risk. The Bank will also carry out programmatic AAA to follow on the recommendations of the Country Fiduciary Assessment, including support for anti-corruption initiatives.

Annex 1: Kosovo CPS: Results Matrix FY12-15

Country Dev. Goals	Issues and Obstacles	Outcomes the Bank Program is Expected to Influence	Milestones	WBG Program
Pillar I: Accelerating Broad-Based Growth and Employment Generation				
Strengthening infrastructure, with a focus on energy	Unreliable electricity supply system hampers the economic development and private sector investments.	Move towards increased the production, efficiency and financial and environmental sustainability of the energy sector.	Kosovo B is being rehabilitated to comply with EU environmental standards (completion by 2018)	<p><u>World Bank</u> FY13 Energy Efficiency and Renewable Resources Project FY14 PRG for KRPP</p> <p><u>IFC</u> FY13-FY15 Balkans Renewable Energy Advisory Program (BREP) PPP advisory in the power distribution sector</p> <p><u>MIGA</u> FY13 possible political risk guarantee for Kosovo Power Project</p>
	Unreliable electricity distribution systems and high level of technical and commercial losses.	Improved quality of service, with secure supply to all paying customers; elimination of the need for subsidies from Government and donors to pay for electricity purchases and investment in the Distribution Company.	Electricity distribution has been privatized and technical and non-technical losses have been reduced by 3-5 percent.	
	Inefficiency in end-use of electricity and heating, and low use of renewable resources.	Improvement in energy efficiency in the building sector; institutional strengthening of a to-be-created Energy Efficiency Agency to promote energy efficiency.	At least 15-20 public buildings (schools, hospitals, community buildings) are being retrofitted; revised building codes have been established, and households have access to finance to retrofit their houses.	
		Move towards increased use of renewable resources for electricity generation.	At least 3 bankable projects have been prepared for private sector investment in renewable resources; and a financing mechanism for private sector renewable energy projects is in place.	

<p>Promote private sector development and financial strengthening</p>	<p>Substantial regulatory burden on businesses, deficiencies in the rule of law, shortage of skilled labor and limited access to finance impair economic productivity and Kosovo's business climate.</p> <p>Kosovo's property and land administration system is inadequate: high shares of properties are unregistered, Municipal Cadastre Offices (MCOs) are weak, and property records are inconsistent and incomplete.</p> <p>Improve gender equity and property ownership.</p> <p>Lack of capacity for establishing and strengthening of small and micro enterprises.</p> <p>Financial sector suffers from structural weaknesses.</p> <p>The Central Bank of Kosovo has insufficient institutional, financial, and supervisory</p>	<p>Provision of knowledge inputs to Government's efforts to promote private sector led growth through simplified processes for business licensing, inspection, and regulation.</p> <p>Property and cadastral services have improved as indicated by increase in registered real estate transactions and decrease in the average days to register a standard sale or purchase of a residential property.</p> <p>Strengthen capacity of cadastre agency to promote greater gender equity in land ownership.</p> <p>Direct support to development of small and micro enterprises through grants, training and TA.</p> <p>Increased access to credit for SMEs</p> <p>Stronger financial system through support of the regulatory and institutional reform of Kosovo's financial system.</p> <p>The sustainability of CBK and its capacity to supervise banks and non-</p>	<p>Reduction in percentage of firms indicating problems with business licensing and regulation from 47 to 37%;</p> <p>Average number of days to register a standard transaction of residential property decreased from 30 to 20 days; 11 out of 23 MCO facilities are reengineered.</p> <p>Percent of property individually owned by women or jointly titled to increase from 20% (baseline: 2011) to 30% by 2015.</p> <p>300 small and micro enterprises created or strengthened.</p> <p>Support development of SMEs in key areas such as agribusiness and construction through helping to overcome financial constraints.</p> <p>Reform of the payment system, and implementation of Real Time Gross Settlement; harmonization of existing regulations and procedures with Kosovo's new Banking Law, and assurance of conformity with EU practices, particularly in the area of financial reporting and auditing.</p> <p>CBK has developed plans to ensure access to long-term</p>	<p><u>World Bank</u> FY08 BETA, FY10 SEDPP, FY10 RECAP, FY10 PSMP, FY11 SILED FY11 KYDP2 FY11 FSSMIP, FY12 TA Central Bank</p> <p><u>AAA and ESW</u> FY15 CEM FY12 ROSC FY12-13 FSAP FY13-15 PER</p> <p><u>IFC Advisory:</u> FY12-14 Trade Logistics FY13-15 Investment Climate FY12-15 Corporate Governance FY12-15 Doing Business Report Analysis /Advisory Services</p> <p><u>IFC financing:</u> Create new jobs by supporting competitive local corporations. Support microfinance institution Support banks with a focus on SME sectors</p>
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	capacity, and the financial system lacks an adequate payment settlement system.	bank financial institutions have been strengthened.	resources and supervises Kosovo's main banks and pension funds on a regular schedule.	
Strengthening agriculture development	<p>Agriculture sector is underdeveloped, with low capacity and knowledge among agri-producers.</p> <p>Limited targeted support for women engaged in agri-business.</p>	<p>Promote competitiveness and growth in the livestock and horticulture sub-sectors through implementation of selected measures of its agricultural strategy and institutional development.</p> <p>Women farmers targeted through the awareness raising campaign. More women farmers engaged in agriculture and agri-business in Kosovo. Strengthen capacity of Ministry of Agriculture to include and support women farmers.</p>	<p>At least 80 agricultural enterprises have adopted improved products and/or processes.</p> <p>Number of women farmers awarded grants is doubled (Baseline 2011: 4.4%)</p> <p>At least one third of all participants trained in grant preparation are women.</p> <p>At least 20 new agricultural micro and small enterprises have been established.</p>	<p>World Bank FY11 KARDP + Danish TF FY11 SILED IFC Financing competitive local companies in the agribusiness sector. Western Balkans Agribusiness Advisory Services</p>
Investing in education and skills	<p>Efforts to improve the quality of Kosovo's education system are undermined by insufficient capacity to monitor the performance of the system, including its financing, and to plan and implement sound policies at the central and local levels.</p> <p>The vocational and higher education systems have substandard instruction and are of limited relevance to the evolving demand for labor.</p>	<p>The central and local capacities to monitor financial and quality trends and plan and carry out investment is strengthened as indicated by: The transfer of budget autonomy to municipalities; the adoption of a per capita funding formula that directs resources to areas of need; the monitoring and publication of annual current expenditures for key parameters</p> <p>Improved opportunities for relevant training and life-long learning as indicated by the establishment of a National Qualification Framework and continued accreditation of vocational training institutions.</p>	<p>Financial decentralization and transfer of autonomy to schools has occurred (baseline: 13 municipalities in 2011, target 37 municipalities in 2013).</p> <p>Percentage of municipalities that use EMIS data to report on the status of drop-outs and retention disaggregated by gender and community. (baseline; 0% in 2011; 60% in 2013).</p> <p>National Qualification Framework document and administrative instruction of accreditation criteria developed and approved. Decisions about the accreditation of training providers made publicly</p>	<p>World Bank FY07 IDEP FY10 SEDPP FY12 SEDPP</p>

	Lack of reliable data on drop out and retention for girls and boys.	Better quality school data are collected regularly by a higher proportion of schools.	available. At least 60% of municipalities are reporting drop out and retention data disaggregated by gender.	
Promoting sustainable employment and social inclusion	<p>Kosovo's unemployment rates are high – 46% among the general population and 76% among youth; yet, labor market programs are weak, and non-compliance with existing labor protections and regulations is widespread.</p> <p>The design and implementation of effective policies and programs is hampered by the limited capacity to monitor the labor market.</p> <p>Sub-par health outcomes, including for financial protection, call for a system reform with pressures to increase labor taxes and possibly adverse consequences for labor demand.</p> <p>Access to basic infrastructure and labor and enterprise development services is low in poor communities, particularly among poor and multiethnic communities (including youth).</p>	<p>Labor programs strengthened and employment opportunities enhanced, as indicated by increase in number of annual job placements made by Public Employment Services and decrease in the informal employment rate.</p> <p>The capacity for monitoring is strengthened as indicated by improved statistical data collection and analysis.</p> <p>Health outcomes are improved as indicated by the passing of a health insurance law that transforms the financing of health care to improve the financial protection of the poor without threatening the fiscal sustainability and increasing labor taxes.</p> <p>Support social cohesion through rehabilitation of small-scale social and economic infrastructure in the poorest villages and in mixed/minority communities as well as promoting MSMEs in a socially inclusive manner; and through youth centers, promoting inter-ethnic collaboration among youth, especially from marginalized and vulnerable groups.</p>	<p>Pilots of labor market programs with increased participation of regional and local employment offices have been carried out.</p> <p>Public works program expanded.</p> <p>The development of a Labor Market Information System has been initiated.</p> <p>Health insurance law passed.</p> <p>At least 20 basic community infrastructure objects have been rehabilitated or built through a socially inclusive approach and at least 300 small and micro enterprises have been created or expanded with a socially inclusive approach. At least 16 Youth Centers have fully developed sustainable strategies.</p>	<p><u>World Bank</u> FY10 SEDPP FY11 SILED FY11 KYDP2 FY12 SEDPP</p> <p><u>AAA and ESW</u> FY12-FY13 Kosovo Statistical and Analytical Capacity Development FY12-15 Programmatic Poverty and Gender monitoring</p>
Strengthening public financial management, procurement and anti-corruption efforts	<p>Kosovo's PFM system is impaired by unreliable multi-annual planning systems and weaknesses budget execution, particularly in payroll management and procurement.</p> <p>Lack of a pay and grading structure in the civil</p>	<p>Long-term focus on public financial management with strengthened internal controls and audit, strengthened external audit, as measured by improved performance in the PEFA indicators.</p>	<p>In no more than one out of last 3 years has the actual expenditure deviated from budgeted expenditure by more than 10% of budgeted expenditure (PEFA ind. PI-1).</p>	<p><u>World Bank</u> FY10 PSMP FY11 SEDPP</p> <p><u>AAA and ESW</u> FY12 CFA</p>

	<p>service results in wide pay differentials for comparable positions in different civil service organizations, and erodes planning and controls in wage bill management.</p>	<p>Increased bidder participation in public procurement tenders and cost savings achieved through Quick Gains actions and e-procurement modules.</p> <p>Transparent and coherent pay and grading structure introduced in the core civil service.</p>	<p>Bidder participation in public procurement tenders increases by 15% (baseline: 8,270 bidders).</p> <p>Grading system is fully introduced and there is an equal base pay for posts of equal grade and salary step across civil service bodies.</p>	
Pillar II: Improving Environmental Management				
<p>Reduce the environmental footprint of development activities, reducing environmental hazards to human welfare, and moving towards harmonization with EU environmental standards.</p>	<p>Lack of analysis of environmental issues and priorities</p> <p>Kosovo's mining operations have polluted land potentially viable for development, while institutional capacity to undertake environmentally sound mining operations is inadequate.</p> <p>Kosovo has high carbon emissions, along with an underutilized energy efficiency</p>	<p>Broader appreciation of environmental issues and of strategies for addressing them throughout Government and among stakeholders.</p> <p>Pollution in mining operations has been reduced and environmentally sound mining operations have been strengthened through elimination of dumping on open land of ash from the Kosovo A power plant.</p> <p>Initiate and enable KEK to achieve land reclamation for natural habitats, agriculture, resettlement or other land use purposes.</p> <p>Removal of highest priority hazardous substances from storage tanks at the gasification site.</p> <p>The KRPP program adheres to good environmental practices and options for deriving energy from renewable sources.</p>	<p>Completion of Government's Kosovo Environmental Action Plan (2011 draft) and the State of the Environment Report.</p> <p>Mirash open pit mine has been prepared for Kosovo A ash management, and the wet ash handling system has been installed.</p> <p>At least 55% of the total overburden area has been reclaimed.</p> <p>4300 tons of tars, benzene, phenols, methanol, and oily compounds have been removed.</p> <p>Regular environmental monitoring of air, soil, and groundwater in the KRPP area is established; A low-carbon growth strategy for Kosovo is prepared.</p>	<p>World Bank FY06 Energy Sector Cleanup and Land Reclamation Project FY13 AF for Energy Sector Cleanup and Land Reclamation Project</p> <p>AAA and ESW FY12 Country Environmental Assessment</p> <p>IFC FY12-13 Solid Waste Management Concession</p>

Annex 2: Summary of the Consultation on the Proposed World Bank Country Partnership Strategy for Kosovo for FY12-15 with Civil Society Organizations

World Bank Office in Kosovo, Wednesday, April 4, 2012

The World Bank office in Pristina sent invitations to a large number of CSOs, to discuss the proposed CPS for Kosovo for FYs12-15. The invitation included a detailed powerpoint presentation on the proposed CPS and an Agenda for the consultation meeting comprising six guiding questions as well as links to key reports available on the Bank's website (Country Economic Memorandum, Public Expenditure Review, Development and Evaluation of Power Supply Options for Kosovo, Report of the SFDCC External Expert Panel, and South East Europe Regular Economic Report). All the reports, as well as the PPT and Agenda, were translated into Albanian and made available well in advance of the meeting. The consultation meeting took place on April 4, 2012 in the new premises of the World Bank Office in Kosovo and lasted for a full day with lunch provided. The World Bank Vice President for Europe and Central Asia, Philippe Le Houérou opened the meeting with introductory remarks on the proposed CPS for Kosovo. The meeting was moderated by the World Bank's Senior Advisor, Theodore Ahlers. The Bank's Country Director for the Western Balkans, Jane Armitage, was also present. The Country Manager for Kosovo, Jan-Peter Olters, delivered a presentation on the key messages of the proposed CPS to kick-off the discussion.

Mr. Philippe Le Houérou's opening remarks:

As the World Bank moved from an Interim Strategy Note for Kosovo to a Country Partnership Strategy (CPS), it was an important moment in the partnership between the Bank and Kosovo. The Bank fully supported Kosovo's goal of joining the European Union and recognized that the EU could help Kosovo to lift its people out of poverty. Given the importance of diagnosis for shaping this first CPS for Kosovo, it was essential to discuss the Bank's diagnosis underlying the CPS. Bank staff believed that jobs and growth were critical and so the Bank focused the first CPS pillar on jobs. In the second pillar, the Bank had a clear focus on environmental management, reflecting the Bank's assessment that this was critical for the well-being of Kosovars. In so doing, the Bank wanted to help to balance environmental management with growth and job creation. Energy straddled both pillars of the proposed CPS – electricity shortages remained a key constraint to private investment and jobs, and inefficiencies in the sector were a key contributing factor to environmental pollution.

Mr. Ted Ahlers' opening remarks:

Mr. Ahlers noted that this was one of many consultations held in Kosovo over the past four years. The purposes of the full-day consultation were to get the CSOs' views on the proposed CPS, to answer their questions, and have a discussion on areas of concern. The Bank was preparing to go to the Board in late May or June with this CPS, leaving plenty of time to give due consideration to CSO concerns. To ensure that all issues were addressed, the Bank had previously distributed a detailed, powerpoint presentation on the CPS and an agenda for the

consultations including six guiding questions for the discussion. The powerpoint presentation and agenda are available on line at www.worldbank.org/kosovo.

Mr. Ahlers noted that many things in the proposed CPS have changed over the past year, based on the Bank's ongoing consideration of Kosovo's development challenges and inputs from civil society and the private sector.

Short presentation on the proposed CPS by Mr. Jan-Peter Olters:

Mr. Olters told participants that the CPS is dynamic and could be modified when warranted through the CPS Progress Report. The Bank would continue listening to the ongoing dialogue in Kosovo even after the World Bank document goes to the Board. The overarching objective of the strategy was to increase growth and domestic productivity. Mr. Olters noted that civil society has had positive influence on the CPS, as reflected in the scope of projects being proposed.

Agenda Item 1: Is the World Bank's diagnosis of the challenges facing Kosovo correct?

Questions were focused on the economic and social development priorities in the proposed CPS, specifically whether the only strategy for growth in Kosovo was EU integration. A question was raised about whether the Bank's consideration of support for a new power plant could actually be an obstacle to EU integration. There were also questions about the expected outcomes of the CPS and how success would be measured and why the Bank put the energy project in the category of growth when it is unclear how it will specifically help to create jobs. The moderator asked the participants to focus on the diagnosis question for this first agenda point, noting that, if one started with an agreed diagnosis, one could more easily move to how to address Kosovo's development challenges. Comments were made about perceived contradictions in the strategy, the identification of risks in the CPS, and if jobs and environment were the diagnosed challenges, then what specifically would the World Bank be doing about it? One member of civil society noted that the Bank should be implementing "job-building projects."

A representative of KEK employees asked whether there was a specific approach to handling the employees who currently worked at the power plants once Kosovo A was closed. If the first priority was the creation of jobs, why would the Bank include a project that would limit them at the power plants? The representative noted that Kosovo A, while unsustainable, employed about 1500 workers, with an average age of 50 years. Kosovars were concerned about giving the local capacity of Kosovo B to a private company. He noted that this did not have the support of the employees of the union of workers.

In terms of the challenges and constraints, there was general agreement that jobs and the environment were the main issues in Kosovo. A question was raised about why the World Bank was considering support to a new power plant if the environment was a problem.

Mr. Le Houérou asked about other ideas on how to create a thriving private sector that could create jobs because not everyone could be a civil servant. What would be the driver of the economy going forward – remittances? How did one build a thriving private sector? He asked for the views of the participants on where they saw the growth coming from, underlining that the diagnosis on this was critical. How could Kosovo go from the current GDP per capita to that of

Slovenia and then to that of a country such as England? What were the economic and social impediments to that? Mr. Le Houérou noted that if there was no agreement on the diagnosis then it was very hard to have an agreement on solutions.

A representative of the Community Development Fund, which is implementing the World Bank-funded Social Inclusion and Local Development Project, asked whether there would be other projects of this type financed by the Bank in Kosovo, commenting that the direct link between building a new power plant and jobs was not clear. She agreed that unemployment was a big problem but pointed out that she did not see how the proposed CPS addressed that.

A representative of Development 4 Democracy listed as a challenge the low productivity and Kosovo's competition in the jobs market. The Labor Union noted that thousands of workers would be sent home but what was the productivity currently? Other questions were raised about the Bank's strategy for addressing women's unemployment, the government policy of borrowing funds for highways, and how the World Bank felt Kosovars should be addressing their indebtedness and the future.

One participant pointed out that industry competitiveness should be listed specifically in the development strategy. A representative of KIPRED highlighted the rule of law as a challenge for curbing unemployment. Claiming that 40 percent of Kosovo's economy was in the black market, he recommended that the World Bank build mechanisms to shift the black economy into a formal economy so there was actual data and policies in order for the issues to be addressed more easily. He expressed the view that rule of law and education should be the main pillars.

One participant suggested investing in local products and encouraging local farmers, noting that the World Bank was enriching the government and creating oligarchs rather than supporting entrepreneurs. The CDF representative mentioned that the World Bank was indeed supporting small and micro enterprises through SILED project, but that she hoped that the Bank would have more money for this type of support in the future.

World Bank Country Director, Ms. Jane Armitage, acknowledged that the Bank's consideration of supporting the new power plant was controversial. She noted that preparation of the project was still at a very early stage and that there would be many opportunities for in-depth discussions with CSOs as preparation proceeded. She indicated that the proposed CPS had changed to reflect previous discussions with CSOs, namely by adding a Water project to improve water supply and quality for households, businesses and agriculture and a Renewable Energy and Energy Efficiency project which would be the largest project over the next four years in Kosovo. She also informed the participants that there were plans to hold a Donor Conference in September on supporting the closure of Kosovo A and enabling further investments in renewable energy and energy efficiency. Ms. Armitage noted that the Bank is supporting and will continue to support employment under the new CPS and urged the group to look at the current portfolio and the pipeline of future projects, emphasizing that the World Bank was already financing important projects in agriculture, education, business climate improvement, cadastre and the financial sector which all help support job creation. In addition, the Bank has provided €33 million in budget support for a Sustainable Employment Development Policy Operation to strengthen the institutional and regulatory environment for employment creation. Ms. Armitage noted that the European Commission supports development of the new power plant project (which would be

fully consistent with EU environmental requirements) and that a priority for many of Kosovo's partners (including the EU) was to close the old, highly polluting Kosovo A Power Plant.

A representative of the education unions highlighted the importance of reforms in the education sector, concluding that not much had changed in the Kosovo schools as they lacked the tools to become modern. He questioned the results of the promised strategies in the education sector and underlined that children should not fail for lack of education.

The Director of Kosovo's Center for Gender Studies considered that the proposed CPS lacked a gender focus. She suggested that gender issues should be included in all the projects. As an example, she wanted to see in the CPS the unemployment figures for women. The improvements in gender aspects proposed in the CPS were deemed by her as insufficient.

A World Bank consultant working on the agriculture and cadastre sector provided information on the gender aspects of some Bank-funded projects. He mentioned that both the ongoing agriculture and cadastre projects include design features that promote women's legitimate rights through, for example, special outreach efforts, training for business development and secure title to land.

A representative of GAP institute claimed it was difficult to see Government's development strategy. In her view, the priorities put forward in the proposed CPS were contrary to the country's real priorities. Her objection was that the challenge of rule of law was dealt with only through the strategy of EU integration. She also suggested that there were other alternatives to promote development besides building a new power plant.

Agenda Item 2: Is the proposed package (of ongoing operations, new lending, analytical work, and technical assistance) appropriate to address the challenges?

The moderator noted that governance, gender, and education were some of the issues discussed in the previous session and invited participants to discuss those further. His view was that, while governance and rule of law was clearly a very big issue for Kosovo, the EU and many other partners might play a bigger role than the World Bank in that regard. He agreed that gender should not be just a box in the CPS document and welcomed additional ideas on addressing this issue.

Mr. Olters highlighted the importance of consultations with all stakeholders in Kosovo, not least with a view to identifying development priorities with broad-based support. He explained that every Bank-funded project would need to be ratified by Parliament with a 2/3-majority because they would be funded with IDA credits and not grants. He also explained the links between the different Bank-funded projects. For example, the Cadastre and Real Estate project, provided farmers with titles documenting their land ownership, which, in turn, could enable them to use land as collateral. The Agriculture project was helping farmers and small agri-businesses with applications for loans from commercial banks.

One participant questioned the results of several Bank-funded projects such as the Institutional Development in Education, the Business Environment Technical Assistance, and the Cleanup and Land Reclamation Projects. He noted that students did not study agriculture, that last year Kosovo ranked lower in the Doing Business ranking, and that there were protests of area residents dissatisfied with the Cleanup Project. He praised the Real Estate and Cadastre

Registration Project, but expressed concerns that unemployment might not be addressed sufficiently in the new CPS. The moderator highlighted that creating jobs was a huge challenge and required a multi-pronged approach to growth and business development.

One participant asked why all World Bank funding needed to be channeled through the Government and not through CSOs, especially since disbursement was an issue on the side of government agencies. The moderator noted that the World Bank was owned by the countries of the world and that it provided financing to the member governments. The lending contracts had to be between the World Bank and the government, as required by the Bank's founding charter.

One participant suggested that the education piece in the strategy should be bigger in order to address fundamental issues and expressed reservations about indebting future generations. Specifically, she suggested a future education project should aim at making education in Kosovo aligned with EU standards.

A representative of the Group for Legal and Political Studies suggested that the World Bank could monitor Government's budget planning and help competition in the markets, such as the telecom sector. One participant expressed the opinion that the World Bank would suppress the market for renewable energy in Kosovo with its proposed support for a new power plant. She noted that an external expert claimed that 80,000 jobs could be created if the Bank invested in renewable energy in Kosovo. The moderator suggested that the crux of the discussion on energy was about how much electricity Kosovo needs and where to get that electricity from. The moderator explained that Bank officials had reviewed all of the analyses very carefully and published all of its own analysis in English and Albanian.

One participant disagreed with the Bank's analysis and noted that the Bank should be held to its own standards for supporting renewable energy in the future and for making accurate assessments of the various energy alternatives. The moderator confirmed that the World Bank would provide many more opportunities to discuss the proposed Kosovo Power Project as it moved forward with considering the project and conducting all the necessary environmental, technical, and social assessments.

A representative of KEK workers' union suggested that the World Bank should focus on improving energy efficiency and expanding the existing irrigation system in Kosovo.

A representative of IFC informed the participants about the areas where IFC wanted to increase its program in Kosovo, explaining that IFC had been working on strengthening the competitiveness of Kosovo's goods by improving adherence to international standards and technical cooperation. He noted that IFC was active also in supporting improvements in corporate governance and trade logistics. He highlighted that IFC's investment in one leading commercial bank was very important, as it was the first bank in Kosovo and that IFC is also working with SMEs. The IFC representative also noted that Kosovo would be included in IFC's Balkan Energy Renewable Program which aimed at helping firms to design projects and financial institutions to develop new products for renewable energy projects.

One participant asked whether the World Bank supported the blockade of Serbian goods to Kosovo. The moderator responded that the Bank did not support blockades anywhere in the world because open markets, when managed well, were considered contributors to growth. When

a follow-up question was asked about subsidies for Kosovo's products in relation to Serbian and Bosnian subsidies, the moderator noted that issues of protection warranted great care.

One participant noted that the figures for GNI coefficient and the birthrate were not recorded in Kosovo so it was difficult to assess whether improvements had been achieved in the well-being of the population. He asked if the Bank did any analysis on these figures and if it were to finance a project supporting improvement of statistics in Kosovo. The Country Manager agreed that more accurate and more timely statistics were crucial to understanding changes in poverty levels and agreed that having EU standards in education was very important because it could help with employment. He underlined that it took a lot of time to achieve these improvements.

Staff from the Bank office in Pristina explained the outcomes of the ongoing education project, including the decentralization of fiscal management of schools. School development grants support selected schools to prepare and implement quality enhancement plans. Selection criteria include retention and attendance rates among girls. There was also support for a training mechanism for teachers linked to salary increases, which was likely to continue. The project also strengthened the capacity in the Ministry of Education to improve the assessment of the *matura* exam. Links between education and the labor market had been supported through the budget support operation SEDPO. The Bank official also explained that the project provided international training on the design of test questions, that the Ministry of Education was building mechanisms to ensure misconduct was not repeated, and that education institutions would receive further capacity building. Responding to a comment on politicization of schools in Kosovo, the Bank official encouraged civil society to devote more attention to the education sector.

Following the lunch break, staff from the Bank office provided clarifications on the results of the Environmental Clean-Up Project. The project was ongoing, with the objectives for the ash dump and overburden dump stabilization having already been achieved. The highest point of the ash dump had been lowered by 14 meters and its slide towards the village of Dardhishte had been stopped. Some 100,000 plants have been planted on top of the overburden dumps and, by the end of May, the current open-air transport of ash should be replaced with a hydraulic transport of ash. At the end of April, the process of cleaning up tons of phenolic waste water should be completed. The Government of Kosovo had signed bilateral agreements with countries such as Sweden and Germany to remove some of the waste.

Agenda Item 3: Is the proposed comprehensive approach to supporting the energy sector sufficient to address concerns about the Kosovo lignite power plant?

The moderator provided a framework for the discussion by posing a few key questions: how much electricity did Kosovo need and from where should it get it? How much energy could Kosovo get from energy efficiency, from renewable energy, and where could it get the rest of the power needed?

To frame the discussion, Bank staff gave a short presentation and responded to some questions raised earlier in the day.

The importance of affordable and reliable power supply for small businesses was underlined. The Bank official explained that the Bank's analysis assumed higher carbon prices than were demanded in the market and that the forecasted demand used in the Bank's analysis of Kosovo's energy demand was very optimistic. He noted that, even if a smaller supply-demand gap was used, Kosovo still needed to determine how it was going to secure its energy in the coming years, particularly as the country was legally obligated to decommission the highly polluting Kosovo A Power Plant by 2017. The Bank's analysis was also optimistic about the potential for renewable sources of energy, such as biogas and wind power. The Bank had been encouraging the Government to make better use of solar power for water heating. The Bank noted that a detailed analysis of externalities had not yet been conducted because the project was still in the earliest stages of consideration. However, this analysis would be done at the stage of Project Appraisal and consultations would be conducted on its findings .

The Bank also clarified that it would not support the New Kosovo Power Plant if it did not meet EU standards. The Bank official provided clarifications on the issue of water supply, sharing data from a technical study on the Iber-Lepenc Canal which concluded that there was sufficient water for power generation and that the Bank's water project would help with the conveyance system and reduction of losses.

The Bank official also responded to an earlier comment about the inclusion of the rehabilitation of the Kosovo B power plant in the project package, noting that Kosovo's Parliament had approved the strategy to combine the closure of Kosovo A, the rehabilitation of Kosovo B, and the opening of the New Kosovo Power Plant. For as long as the Parliamentary decision allowed for an economically viable investment and took into consideration all the environmental and social safeguards, the World Bank would not argue against the current Parliamentary decision.

The Bank official explained that his team and Mr. Daniel Kammen's team at Berkeley have had numerous discussions about their respective analyses and that discussions were ongoing. He noted that running a model on an energy basis versus a capacity basis did not take storage into account and that a model needed to plan for meeting the peak demand during winter.

A participant disagreed with the findings of the Options Study, mainly because, in his view, peak consumption was treated in the study as base-load. Another participant warned that the proposed project would create an energy monopoly which would lobby the government to use more of its energy rather than promote energy efficiency. The moderator reiterated that, if the project was not in conformity with EU Directives, the Bank would not finance it, noting that the EU had confirmed its support for the proposed project and that, as currently planned, it considered the project to be in conformity with the relevant EU Directives.

Bank officials repeated that the Partial Risk Guarantee for the proposed project had not yet been approved and that a variety of studies needed to be conducted prior to the Bank's final consideration of the project. The moderator noted that it would take at least a year before the proposed project could be presented to the World Bank's Board of Executive Directors for further consideration – and then only if the project met all the Bank's environmental and social requirements.

Bank officials explained that the location of the new power plant would be next to Kosovo B and would thus not be a green field project, as suggested by representatives from the Municipality of Obiliq.

A discussion followed about the EU's rules on monopoly and the right of consumers to choose their energy supply. A participant objected to the proposed project saying that it breached the principles of the EU rules on monopoly. Bank officials agreed that Kosovo should have a fully liberalized, deregulated market but noted that, in other countries, "switch" rates by energy consumers were very low whereas the investments required to offer the switch were very expensive. Generally, only the large commercial consumers switched energy providers.

One Bank official noted that new capacity for coal power would not likely crowd out other renewable investments because Kosovo had a feed-in tariff which meant the operator was obliged to dispatch renewable energy as a priority. He also noted that the Bank was in favor of the 400kV transmission line with Albania and that he worked on the proposal for the feasibility study for this transmission line in 2002/03.

The point was raised by one participant that support from the EU for the proposed power project was not ensured and that CSOs had sent a letter to the EC asking them to confirm whether they supported the proposed new Kosovo power plant. He also remarked that the letter of support from the US Government was signed by a low-ranking Treasury official and not by the State Secretary. The moderator remarked that EC had told the Bank they supported the project and that the Bank's usual interlocutor in the US Government is the Treasury Department.

Questions were raised about the Bank's Options Study compared with the Berkeley RAEL alternatives study, as well as about the costs of the proposed power project. Specifically, one participant asked why the Bank had not modified its numbers on the cost of externalities since its last presentation and why the Bank was not conducting another externalities study. Bank officials repeated that the proposed project would not be going to the Board for at least a year. During that time, the Bank would undertake more detailed analyses about all aspects of the project. For example, the baseline Environment Social Impact Assessment (ESIA) and the Air Quality Monitoring had not been done but the Government and Bank would prepare these over the next year. Bank officials noted that the Board will not review the project until all of the ESIA's were drafted, discussed, and disseminated.

It was also noted that the studies had to be site-specific and could not rely on data from other countries.

The moderator clarified that the Bank had not *approved* the project, but rather agreed to consider "in-principle" the Partial Risk Guarantee by launching all the necessary preparatory studies. Ms. Armitage clarified the purpose of the CPS is to present the broader, long-range vision over the next four years and that the projects proposed within the CPS would require separate, individual approval by the Bank's Board. She explained that when the Board discussed the CPS at the end of May or early June, it would be looking principally at whether the Bank was proposing the right kinds of projects in Kosovo in relation to the country's overarching development challenges.

One participant suggested three points for further discussion: not treating the peak demand as base-load; working together on decoupling the proposed new power plant and the existing Kosovo B power plant; and working together on energy efficiency and renewable energy projects. He agreed that the targets for reduction of losses in the Options Study were ambitious.

The Bank's energy sector coordinator for Southeast Europe explained that increasing end-use energy efficiency was difficult because it required awareness and economic support. The introduction of price signals should be combined with support for the poor. Energy efficiency required sustained efforts over long periods of time, but very quick results were achievable in the public sector and by retrofitting public buildings. He noted that this would likely form an important part of the proposed US\$32-million energy efficiency and renewables project to be supported by the Bank in coming years. Ms. Armitage added that the proposed project would have subsidies for poor households for insulation, windows, and solar panels. The proposed project would also have a renewable energy component and the Bank would co-host a donor conference on energy in the fall of 2012. She underlined that renewable energy and energy efficiency represented a large part of proposed new lending in the CPS for Kosovo and that the decisions to include these initiatives in the strategy had been the direct result of feedback received from the CSOs in attendance. She noted that the proposed water project in the new CPS also resulted from productive, ongoing discussions with civil society groups and community members in Kosovo. Ms. Armitage noted that, as the Bank moved forward with these projects, all of the necessary studies would be shared and consulted with civil society and the community.

The representative of the KEK workers' union suggested that power plants could provide heating for the bigger cities in Kosovo and asked again about the Bank's position on the 8,000 employees of KEK if Kosovo A were closed and Kosovo B and the distribution were "given away" to private companies. He asked how workers could get involved in the decommissioning of Kosovo A and what would happen with their property once construction and resettlement took place. He wanted to know what guarantees would workers have that their livelihoods would not be risked. A Bank official noted that, based on data from 2009, 50 percent of the KEK employees were older than the age of 55-58 so they were close to retirement. In Government documents, investors were required to keep the workers employed for three years on the same or better terms. After 3 years, they would have to follow the local laws. New construction would generate direct and indirect employment for the next four years (for 600MW, there would be a need for 1,000 people for four years). Local skilled workers would be preferred for construction by the investor. There would be another 300-400 skilled workers in operation and employment from decommissioning Kosovo A for at least 2-3 years. A combination of age profile, security from the new investor, and the new jobs that would be needed should compensate well for the loss of jobs by closing Kosovo A. A more detailed analysis would be done as part of a Poverty and Social Impact Assessment. The Bank official also explained that cogeneration for district heating of Pristina would be implemented in the next two years and that it would be connected with Kosovo B. Ms. Armitage noted that any resettlement needed for the new project would be handled according to the Bank's policies.

Agenda Item 4: Are there other areas of emphasis for the Country Partnership Strategy that have been overlooked? What risks are to be expected and how should the strategy address these risks?

The moderator asked the participants to provide any input they have on the last two guiding questions – was there anything left out of the CPS and if there was some other risk for the strategy as a whole besides the risks already identified in the proposed CPS?

One representative asked to see the link between the strategy and the rule of law and suggested that maybe something on improving the judiciary could be added to the CPS. Another participant said the Bank was doing more harm than good with the CPS by worsening the health perspective for the people of Kosovo with the new power plant, by encouraging a monopoly on energy generation, and spending US\$32 million on Technical Assistance and studies. She suggested that the power plant would be very expensive and Obiliq would lose its village because its citizens' compensation would happen in such a way that they would be removed from their villages into apartment blocks. She added that the Bank would fail to compensate the community properly on resettlement and that, although the Bank would improve water quality, there simply would not be enough water in Kosovo. She mentioned the risk of the new power project hindering Kosovo's EU integration. The moderator remarked that the Bank agreed on the importance of EU integration for Kosovo. He reiterated that Bank officials did not know yet whether the Partial Risk Guarantee for the power plant project would be approved by the World Bank Board. However, he underlined that identifying the country-wide risks was important and that many of the issues raised regarding the power plant would be discussed in greater detail once some of the studies were under way.

One participant asked whether the Bank could share details about the US\$32 million Energy Efficiency and Renewable Energy Project. Ms. Armitage noted that the project's initial concept documents would be available publically later in the year when and preparation of the project started. She noted that all project information would be published on the website according to Bank policies and that she was happy to share with them information on other energy efficiency projects in the region.

Ms. Armitage noted that the draft CPS document would be shared with the CSOs when it was sent to the Bank's Board of Directors because the Government had agreed for simultaneous disclosure of the CPS. Comments could be sent to Bank staff present in the meeting and to the Board. Ms. Armitage emphasized that the CPS was a living strategy document, not one set in stone. This draft document was the Bank's best assessment at the moment of how it could help Kosovo to address its development challenges. It was the beginning of a process and the CPS could be adjusted over the next four years as implementation began through the CPS Progress Report. The final version of the CPS would incorporate possible comments/changes made by the Board and be posted on the Bank's Kosovo website.

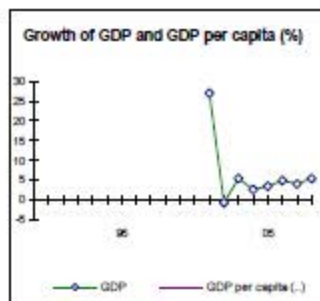
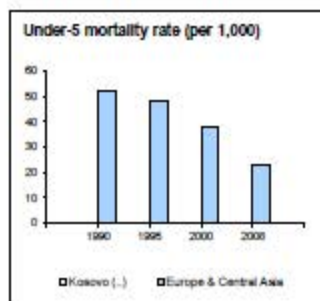
The moderator thanked the participants for a very useful discussion. The Country Manager noted there would be more discussions as preparations on all the projects proposed in the CPS move forward.

Annex 3: At-a-Glance

Key Development Indicators	Kosovo	Europe & Central Asia	Lower middle Income
<i>(2009)</i>			
Population, mid-year (millions)	1.8	403	3,767
Surface area (thousand sq. km)	11	23,549	31,923
Population growth (%)	0.6	0.3	1.2
Urban population (% of total population)	..	64	40
GNI (Atlas method, US\$ billions)	5.9	2,772	7,682
GNI per capita (Atlas method, US\$)	3,240	6,880	2,039
GNI per capita (PPP, International \$)	..	13,297	4,502
GDP growth (%)	4.0	4.0	7.5
GDP per capita growth (%)	3.4	3.6	6.3
<i>(most recent estimate, 2003–2008)</i>			
Poverty headcount ratio at \$1.25 a day (PPP, %)	..	4	..
Poverty headcount ratio at \$2.00 a day (PPP, %)	..	9	..
Life expectancy at birth (years)	69	69	68
Infant mortality (per 1,000 live births)	..	20	44
Child malnutrition (% of children under 5)	..	..	25
Adult literacy, male (% of ages 15 and older)	..	99	87
Adult literacy, female (% of ages 15 and older)	..	97	73
Gross primary enrolment, male (% of age group)	..	100	109
Gross primary enrolment, female (% of age group)	..	98	105
Access to an improved water source (% of population)	..	95	86
Access to improved sanitation facilities (% of population)	..	89	50

Net Aid Flows	1980	1990	2000	2009
<i>(US\$ millions)</i>				
Net ODA and official aid
Top 3 donors (in 2007):				
n.a.
n.a.
n.a.
Aid (% of GNI)
Aid per capita (US\$)
Long-Term Economic Trends				
Consumer prices (annual % change)	-2.4
GDP implicit deflator (annual % change)	11.4	-3.4
Exchange rate (annual average, local per US\$)	1.1	0.7
Terms of trade index (2000 = 100)
Population, mid-year (millions)
GDP (US\$ millions)	1,849	5,387
			<i>(% of GDP)</i>	
Agriculture	12.0
Industry	20.0
Manufacturing	17.3
Services	68.0
Household final consumption expenditure
General gov't final consumption expenditure	18.2
Gross capital formation	27.7
Exports of goods and services	14.1
Imports of goods and services	54.4
Gross savings

	1980–90	1990–2000	2000–09
(average annual growth %)	4.8



Note: Figures in italics are for years other than those specified. 2009 data are preliminary. .. Indicates data are not available.

Development Economics, Development Data Group (DECDG).

Balance of Payments and Trade	2000	2009
--------------------------------------	-------------	-------------

(US\$ millions)

Total merchandise exports (fob)	..	..
Total merchandise imports (cif)	..	..
Net trade in goods and services	..	-2,171
Current account balance as a % of GDP	..	-1,002 .. -18.6
Workers' remittances and compensation of employees (receipts)	..	..
Reserves, including gold	..	..

Central Government Finance

(% of GDP)

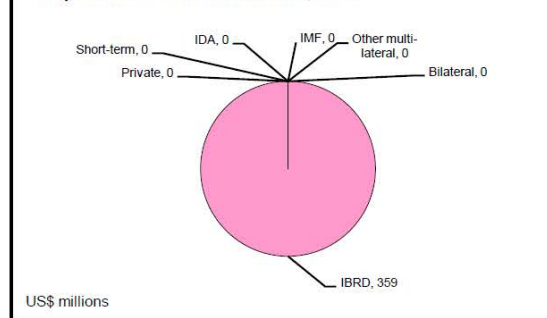
Current revenue (including grants)	..	29.7
Tax revenue	..	21.1
Current expenditure	..	18.6
Overall surplus/deficit	..	-0.6
Highest marginal tax rate (%)		
Individual	..	..
Corporate	..	..

External Debt and Resource Flows

(US\$ millions)

Total debt outstanding and disbursed	..	359
Total debt service	..	230
Debt relief (HIPC, MDRI)	-	-
Total debt (% of GDP)	..	6.7
Total debt service (% of exports)	..	14.5
Foreign direct investment (net inflows)	..	426
Portfolio equity (net inflows)	..	0

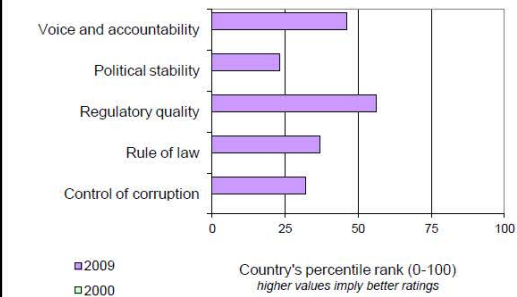
Composition of total external debt, 2009



Private Sector Development	2000	2009
-----------------------------------	-------------	-------------

Time required to start a business (days)	-	52
Cost to start a business (% of GNI per capita)	-	26.4
Time required to register property (days)	-	33
Ranked as a major constraint to business (% of managers surveyed who agreed)	2000	2009
n.a.	..	..
n.a.	..	..
Stock market capitalization (% of GDP)	..	..
Bank capital to asset ratio (%)	..	..

Governance indicators, 2000 and 2009



Source: Kaufmann-Kraay-Mastruzzi, World Bank

Technology and Infrastructure	2000	2008
--------------------------------------	-------------	-------------

Paved roads (% of total)	..	..
Fixed line and mobile phone subscribers (per 100 people)	..	..
High technology exports (% of manufactured exports)	..	..

Environment

Agricultural land (% of land area)	..	52
Forest area (% of land area)	..	..
Terrestrial protected areas (% of surface area)	..	..
Freshwater resources per capita (cu. meters)	..	..
Freshwater withdrawal (billion cubic meters)	..	..
CO2 emissions per capita (mt)	..	..
GDP per unit of energy use (2005 PPP \$ per kg of oil equivalent)	..	..
Energy use per capita (kg of oil equivalent)	..	..

World Bank Group portfolio	2000	2009
-----------------------------------	-------------	-------------

(US\$ millions)

IBRD		
Total debt outstanding and disbursed	-	359
Disbursements	-	0
Principal repayments	-	208
Interest payments	-	23
IDA		
Total debt outstanding and disbursed	-	0
Disbursements	-	0
Total debt service	-	0
IFC (fiscal year)		
Total disbursed and outstanding portfolio of which IFC own account	-	-
Disbursements for IFC own account	-	-
Portfolio sales, prepayments and repayments for IFC own account	-	-
MIGA		
Gross exposure	-	-
New guarantees	-	-

Note: Figures in italics are for years other than those specified. 2009 data are preliminary.
.. indicates data are not available. - indicates observation is not applicable.

2/25/11

Development Economics, Development Data Group (DECDG).

Annex 4: Selected Indicators* of Bank Portfolio Performance and Management

As Of Date 1/30/2012

Indicator	2009	2010	2011	2012
Portfolio Assessment				
Number of Projects Under Implementation ^a	6	8	9	7
Average Implementation Period (years) ^b	2.6	2.8	2.9	3.6
Percent of Problem Projects by Number ^{a, c}	33.3	12.5	55.6	14.3
Percent of Problem Projects by Amount ^{a, c}	30.2	15.8	50.3	13.0
Percent of Projects at Risk by Number ^{a, d}	33.3	25.0	55.6	14.3
Percent of Projects at Risk by Amount ^{a, d}	30.2	20.6	50.3	13.0
Disbursement Ratio (%) ^e	13.8	24.4	13.0	7.8
Portfolio Management				
CPPR during the year (yes/no)				
Supervision Resources (total US\$)				
Average Supervision (US\$/project)				

Memorandum Item	Since FY 80	Last Five FYs
Proj Eval by OED by Number	18	2
Proj Eval by OED by Amt (US\$ millions)	22.4	6.4
% of OED Projects Rated U or HU by Number	5.6	0.0
% of OED Projects Rated U or HU by Amt	0.0	0.0

a. As shown in the Annual Report on Portfolio Performance (except for current FY).

b. Average age of projects in the Bank's country portfolio.

c. Percent of projects rated U or HU on development objectives (DO) and/or implementation progress (IP).

d. As defined under the Portfolio Improvement Program.

e. Ratio of disbursements during the year to the undisbursed balance of the Bank's portfolio at the beginning of the year: Investment projects only.

* All indicators are for projects active in the Portfolio, with the exception of Disbursement Ratio, which includes all active projects as well as projects which exited during the fiscal year.

Annex 5: Summary of Non-Lending Services

<i>Product</i>	<i>Completion FY</i>	<i>Audience^a</i>	<i>Objective^b</i>
Recent completions			
Country Economic Memorandum	2010	G,B,PD,D	KG, PD, PS
Public Expenditure Review	2011	G,B,PD,D	KG, PD, PS
Public Works	2011	G,B,D	KG, PS
Comprehensive Water Sector Assessment	2011	G,B,D	KG, PS
Migration and Economic Development	2011	G,B,D	KG, PS
Underway			
Country Fiduciary Assessment Report	2012	G,B,D	KG, PS
Environmental Analysis	2012	G,B,D	KG, PS
Planned			
Transport Sector TA	2013	G,B,D	KG, PS
Financial Sector Assesment	2012-2013	G,B,D	KG, PS
Road Maintenance	2012-2014	G,B,D	KG, PS

a. Government, donor, Bank, public dissemination.

b. Knowledge generation, public debate, problem-solving.

Annex 6: Social Indicators

	Latest single year			Same region/income group	
	1980-85	1990-95	2003-09	Europe & Central Asia	Lower-middle-income
POPULATION					
Total population, mid-year (millions)	1.7	2.0	1.8	404.2	3,810.8
Growth rate (% annual average for period)	2.0	1.7	0.5	0.2	1.2
Urban population (% of population)	64.0	40.9
Total fertility rate (births per woman)	4.6	2.7	2.3	1.8	2.5
POVERTY					
<i>(% of population)</i>					
National headcount index	45.0	..	..
Urban headcount index	37.4	..	..
Rural headcount index	49.2	..	..
INCOME					
GNI per capita (US\$)	3,240	6,793	2,321
Consumer price index (2000=100)	112	141	130
Food price index (2000=100)
INCOME/CONSUMPTION DISTRIBUTION					
Gini Index
Lowest quintile (% of income or consumption)
Highest quintile (% of income or consumption)
SOCIAL INDICATORS					
Public expenditure					
Health (% of GDP)	2.5	3.9	2.1
Education (% of GDP)	3.7	4.1	4.1
Net primary school enrollment rate					
<i>(% of age group)</i>					
Total	97	92	87
Male	97	93	88
Female	96	92	86
Access to an improved water source					
<i>(% of population)</i>					
Total	95	86
Urban	98	94
Rural	89	81
Immunization rate					
<i>(% of children ages 12-23 months)</i>					
Measles	95	96	79
DPT	97	95	79
Child malnutrition (% under 5 years)	24
Life expectancy at birth					
<i>(years)</i>					
Total	67	69	70	70	68
Male	65	67	68	66	66
Female	69	71	72	75	70
Mortality					
Infant (per 1,000 live births) (2004-09)	35	19	43
Under 5 (per 1,000)	21	57
Adult (15-59)
Male (per 1,000 population)	286	201
Female (per 1,000 population)	123	136
Maternal (modeled, per 100,000 live births)	32	230
Births attended by skilled health staff (%)	98	97	66

Note: 0 or 0.0 means zero or less than half the unit shown. Net enrollment rate: break in series between 1997 and 1998 due to change from ISCED76 to ISCED97. Immunization: refers to children ages 12-23 months who received vaccinations before one year of age or at any time before the survey.

World Development Indicators database, World Bank - 15 April 2011.

Annex 7: Key Economic Indicators

Indicator	Actual			Estimate		Projected		
	2007	2008	2009	2010	2011	2012	2013	2014
National accounts (as % of GDP)								
Gross domestic product ^a	100	100	100	100	100	100	100	100
Agriculture	12	12	12	12	12	13	13	14
Industry	20	20	20	20	20	20	19	20
Services	68	68	68	68	68	68	68	66
Total Consumption	113	113	111	108	101	98	95	94
Gross domestic fixed investment	26	29	27	30	31	31	32	31
Government investment	4	8	10	12	13	13	14	15
Private investment	22	20	17	18	19	18	18	16
Exports (GNFS) ^b	15	14	15	19	20	21	21	22
Imports (GNFS)	54	56	54	60	61	59	57	56
Gross domestic savings	-13	-13	-11	-8	-1	2	5	6
Gross national savings ^c	17	13	13	15	20	21	23	24
<i>Memorandum items</i>								
Gross domestic product (US\$ million at current prices)	4661	5668	5449	5594	6453	6300	6709	7034
GNI per capita (US\$, Atlas method)	..	3070	3280	3410	3530	3660	3870	3930
Real annual growth rates (% , calculated from .. prices)								
Gross domestic product at market prices	6.3	6.9	2.9	3.9	5.0	4.0	4.1	3.2
Gross Domestic Income	..	..	..	..	..	..	..	..
Real annual per capita growth rates (% , calculated from .. prices)								
Gross domestic product at market prices	5.4	6.0	2.1	3.1	4.2	3.1	3.0	2.2
Total consumption	..	..	..	..	..	..	..	..
Private consumption	..	..	..	..	..	..	..	..
Balance of Payments (US\$ millions)								
Exports (GNFS) ^b	690	817	838	1036	1294	1295	1397	1514
Merchandise FOB	226	292	240	405	448	455	501	559
Imports (GNFS) ^b	2510	3195	2929	3366	3942	3689	3842	3917
Merchandise FOB	2118	2776	2516	2822	3355	3133	3279	3362
Resource balance	-1820	-2378	-2091	-2330	-2648	-2394	-2445	-2403
Net current transfers	1105	1221	1206	1179	1167	1088	1049	1094
Current account balance	-415	-924	-770	-1032	-1312	-1154	-1229	-1130
Net private foreign direct investment	591	503	386	475	516	542	806	511
Long-term loans (net)	0	0	0	0	0	0	0	0
Official	..	..	..	..	..	..	..	..
Private	..	..	..	..	..	..	..	..
Other capital (net, incl. errors & omissions)	222	455	253	618	..	..	..	..
Change in reserves ^d	-397	-34	131	-62	..	..	..	..
<i>Memorandum items</i>								
Resource balance (% of GDP)	-39.0	-41.9	-38.4	-41.7	-41.0	-38.0	-36.4	..
Real annual growth rates (.. prices)								
Merchandise exports (FOB)	..	..	..	..	..	..	..	..
Primary	..	..	..	..	..	..	..	..
Manufactures	..	..	..	..	..	..	..	..
Merchandise imports (CIF)	..	..	..	..	..	..	..	..

Continued

Indicator	Actual			Estimate			Projected	
	2007	2008	2009	2010	2011	2012	2013	2014
Public finance (as % of GDP at market prices)^a								
Current revenues	26.4	24.4	29.3	27.6	28.1	28.2	27.1	27.8
Current expenditures	14.9	15.5	16.2	16.5	17.9	18.4	18.5	18.7
Current account surplus (+) or deficit (-)	11.5	9.0	13.1	10.6	10.2	9.7	8.5	9.1
Capital expenditure	2.8	7.4	10.8	12.2	11.9	12.0	11.7	10.7
Foreign financing	..	..	..	..	..	..	..	..
Monetary indicators								
M2/GDP	34.7	38.1	42.1	41.7	41.0	43.7	46.4	..
Growth of M2 (%)	23.8	24.4	12.2	6.7	8.2	13.0	13.0	..
Private sector credit growth / total credit growth (%)	40.1	32.7	8.9	12.6	15.0	9.4	9.3	..
Price indices(.. =100)								
Merchandise export price index	..	..	..	..	..	..	..	..
Merchandise import price index	92.1	100.0	95.2	100.9	110.0	..	..	..
Merchandise terms of trade index	..	..	..	..	..	..	..	..
Real exchange rate (US\$/LCU) ^f	..	..	..	..	..	..	..	..
Real interest rates								
Consumer price index (% change)	4.4	9.4	-2.4	3.5	7.3	1.6	0.7	0.7
GDP deflator (% change)	6.2	-1.3	3.7	5.8	5.1	2.7	2.0	2.0

a. GDP at factor cost

b. "GNFS" denotes "goods and nonfactor services."

c. Includes net unrequited transfers excluding official capital grants.

d. Includes use of IMF resources.

e. Consolidated central government.

f. "LCU" denotes "local currency units." An increase in US\$/LCU denotes appreciation.

Annex 8: Key Exposure Indicators

Indicator	Estimated					Projected	
	2008	2009	2010	2011	2012	2013	2014
Total debt outstanding and disbursed (TDO) (US\$m) ^a	0	364	382	400	490	491	520
Net disbursements (US\$m) ^a	..	-234	46	36	187	46	38
Total debt service (TDS) (US\$m) ^a	..	259	19	21	28	29	28
Debt and debt service indicators (%)							
TDO/XGS ^b	0.0	21.9	20.7	17.9	22.5	21.3	19.1
TDO/GDP	0.0	6.7	6.8	6.6	8.0	9.7	11.0
TDS/XGS	..	..	..	..	..	..	..
Concessional/TDO	..	0.0	7.7	14.8	42.8	46.0	46.1
IBRD exposure indicators (%)							
IBRD DS/public DS	..	..	..	..	..	..	..
Preferred creditor DS/public DS (%) ^c	..	..	..	..	..	..	..
IBRD DS/XGS	0.0	11.3	1.4	1.2	1.2	1.1	1.0
IBRD TDO (US\$m) ^d	0	346	331	315	300	286	271
Of which present value of guarantees (US\$m)	0	0	0	0	0	0	0
Share of IBRD portfolio (%)	0	0	0	0	0	0	0
IDA TDO (US\$m) ^d	0	0	0	12	17	25	33
IFC (US\$m)							
Loans	0.0	0.0	8.4	11.3	5.0	5.0	5.0
Equity and quasi-equity /c	0	0	0	0	0	0	0
MIGA							
MIGA guarantees (US\$m)	0	0	0	0	0	..	..

a. Includes public and publicly guaranteed debt, private nonguaranteed, use of IMF credits and net short-term capital.

b. "XGS" denotes exports of goods and services, including workers' remittances.

c. Preferred creditors are defined as IBRD, IDA, the regional multilateral development banks, the IMF, and the Bank for International Settlements.

d. Includes present value of guarantees.

e. Includes equity and quasi-equity types of both loan and equity instruments.

Annex 9: IDA Program Summary

(in US million)

<i>Fiscal year</i>	<i>Proj ID</i>	<i>US\$(M)</i>	<i>Strategic Rewards b (H/M/L)</i>	<i>Implementation b Risks (H/M/L)</i>
2012	SEDPO2	47.0	H	M
	Result	47.0		
2013	AF for Energy Sector Clean up and Land Reclam	3.2**	H	M
	Energy Efficiency and Renewable Energy	32.5		
	Result	35.7	H	M
2014	Education Improvement Project	10.0	H	M
	PRG for KRPP and Kosovo B	14.5 (58)*		
	Result	24.5		
2015	Water Supply	18.0	H	M
	Result	18.0		
Overall Result		78.2		

*Only 25 percent of total PRG amount is counted. Preparation of PRG is subject to the findings of an external expert panel that is currently reviewing the proposed project to ensure that it complies fully with Bank policies regarding investments in fossil-fuel fired power generation plants. The panel is expected to complete and disseminate by December 2011

**includes US\$2.2m re-allocated from cancelled LPTAP funds.

Annex 10: IFC Investment Operations Program

	2009	2010	2011	2012*
<u>Original Commitments (US\$m)</u>				
IFC and Participants		6.45	8.25	0.33
IFC's Own Accounts only		6.45	8.25	0.33
<u>Original Commitments by Sector (%) - IFC Accounts only</u>				
FINANCE & INSURANCE			100	100
INDUSTRIAL & CONSUMER PRODUCTS		100		
Total	0	100	100	100
<u>Original Commitments by Investment Instrument (%) - IFC Accounts only</u>				
Guarantee				100
Loan		100		
Quasi loan			100	
Total	0	100	100	100

* Data as of January 01,2012

Annex 11: Operations Portfolio (IDA)
as of January 30, 2012

Closed Projects 21

IBRD/IDA *

Total Disbursed (Active)	17.10
of which has been repaid	0.00
Total Disbursed (Closed)	42.34
of which has been repaid	0.00
Total Disbursed (Active + Closed)	59.44
of which has been repaid	0.00
Total Undisbursed (Active)	60.81
Total Undisbursed (Closed)	2.28
Total Undisbursed (Active + Closed)	63.09

Active Projects

Project ID	Project Name	Last PSR		Fiscal Year	Original Amount in US\$ Millions
		Supervision Rating			
		<u>Development Objectives</u>	<u>Implementation Progress</u>		
					IDA
P112526	Agriculture and Rural Devpt	S	S	2011	20.15
P096181	CLEAN UP & LAND RECLAM	MS	MS	2006	10.5
P102174	Inst. Devt. for Education	MU	MS	2008	10
P101614	Public Sector Modernization	MS	MS	2010	8
P101214	REAL ESTATE CADASTRE	S	S	2010	12.25
P088045	XK Business Env TA	MS	MS	2005	7
P108080	XK Fin. Sect. Strengthen.&Market Infrast	MS	MS	2008	8.85
Overall Result					76.75

Annex 12: IFC Committed and Disbursed Outstanding Investment Portfolio
as of January 30, 2012

<u>FY Approval</u>	<u>Company</u>	<u>Committed</u>					<u>Disbursed Outstanding</u>				
		<u>Loan</u>	<u>Equity</u>	<u>**Quasi Equity</u>	<u>*GT/RM</u>	<u>Partici pant</u>	<u>Loan</u>	<u>Equity</u>	<u>**Quasi Equity</u>	<u>*GT/RM</u>	<u>Partici pant</u>
2010	Newko Balkan	6.73	0	0	0	0	6.73	0	0	0	0
2011	TEB Kosovo	0	0	8.41	0	0	0	0	8.41	0	0
Total Portfolio:		6.73	0	8.41	0	0	6.73	0	8.41	0	0

* Denotes Guarantee and Risk Management Products.

** Quasi Equity includes both loan and equity types.

ANNEX 5. COMPREHENSIVE WATER SECTOR ASSESSMENT



Ministry of Environment and
Spatial Planning



World Bank



A Model for Water Resources Planning

Water Security for Central Kosovo

March 2011

WEAP Model Activities

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ACRONYMS

SCE	Company leader of the Consortium
OIEau	Office International for Water – Office international de l'Eau
RDM	Robust Decision Making
WB	World Bank
WEAP	Water Evaluation and Planning System
IL	IBER LEPENC Company
GIS	Geographic Information System
E-Flow	Environmental Flow
RWSC	Regional Water Supply Company

I. GENERAL PRESENTATION OF WEAP MODEL

The WEAP System model was developed by the SEI (Stockholm Environment Institute) to enable evaluation of planning and management issues associated with water resources development. The WEAP model can be applied to both municipal and agricultural systems and can address a wide range of issues including demand analyses, water conservation, water rights and allocation priorities, streamflow simulation, reservoir operation, ecosystem requirements and project cost-benefit analyses.

WEAP model has two primary functions:

- Simulation of natural hydrological processes (e.g., evapotranspiration, runoff and infiltration) to enable assessment of the availability of water within a catchments.
- Simulation of anthropogenic activities superimposed on the natural system to influence water resources and their allocation (i.e., consumptive and non-consumptive water demands) to enable evaluation of the impact of human water use.

To allow simulation of water allocation, the elements that comprise the water demand-supply system and their spatial relationship are characterized for the catchments under consideration. The system is represented in terms of its various water sources (e.g., surface water, groundwater); withdrawal, transmission, reservoirs, and wastewater treatment facilities, and water demands (i.e., user-defined sectors but typically comprising industry, mines, irrigation, domestic supply, etc.).

The data structure and level of detail can be customized to correspond to the requirements of a particular analysis and constraints imposed by limited data. A graphical interface facilitates visualization of the physical features of the system and their layout within the catchments.

Typically, the WEAP model is applied by configuring the system to simulate a recent “baseline” year (in our case it will be 2010), for which the water availability and demands can be confidently determined. The model is then used to simulate alternative scenarios (i.e., plausible futures based on “what if” propositions) to assess the impact of different development and management options.

II. INTRODUCTION OF WEAP MODEL ACTIVITIES IN THE PROJECT & OBJECTIVE OF THIS ACTIVITIES

This report has been prepared for the study “Water Security for Central Kosovo”, project implemented in order to assist the Government of Kosovo to improve its river basin planning and management by providing for demonstration purpose a replicable model for integrated river basin planning and management.

This model will take into account the status of Kosovo as a potential EU candidate country and thus the need to move towards alignment with the EU acquis, including but not limited to the Water Framework Directive. The team will use for modeling activities the WEAP modeling software which has a wide world recognizing to manage this kind of studies.

Then WEAP will be used to define the current water balance scenario corresponding at the situation in 2010; This results will correspond at the baseline scenario which will served at the base for other scenarios studies (how the demand for water will evaluate in the 2010-2035 period and which will be the water available to satisfy all the demands).

In fact, WEAP application of the case study area with developed scenarios, detailing the relevant future water balance projections and possible adaptation strategies. The intent of this synthesis is to organize in one place all the salient features of the development of WEAP applications for each of the case study sites.

Three primary objectives are identified for this mission:

1. To build capacity and proficiency with WEAP software among the study team and to develop draft, functioning WEAP application for each case study area (scenarios tested),
2. To identify, conceptual, scenarios concerning possible adaptation strategies for each case study area and to begin to develop those scenarios using WEAP,
3. To build a multi-criteria analysis tool to prioritize adaptation strategies considering the primary vulnerability around water.

Each of these objectives was accomplished during the mission, as will be discussed in more details below.

WEAP downloads and licensing applications are available on the WEAP website: <http://www.weap21.org>.

The license used for this project is under the user name: “Naser Bajraktari, Water Department, Ministry of Environment and Spatial Planning, Kosovo”.

Usually, a 2 years license is free for non-profit, governmental or academic organization based in a developing country.

III. WEAP MODEL ACTIVITIES

III.1. WEAP MODEL DEVELOPMENT - BASELINE SCENARIO

The team mission succeeded in the development of a functioning WEAP application for the current situation (2010), called “baseline scenario”.

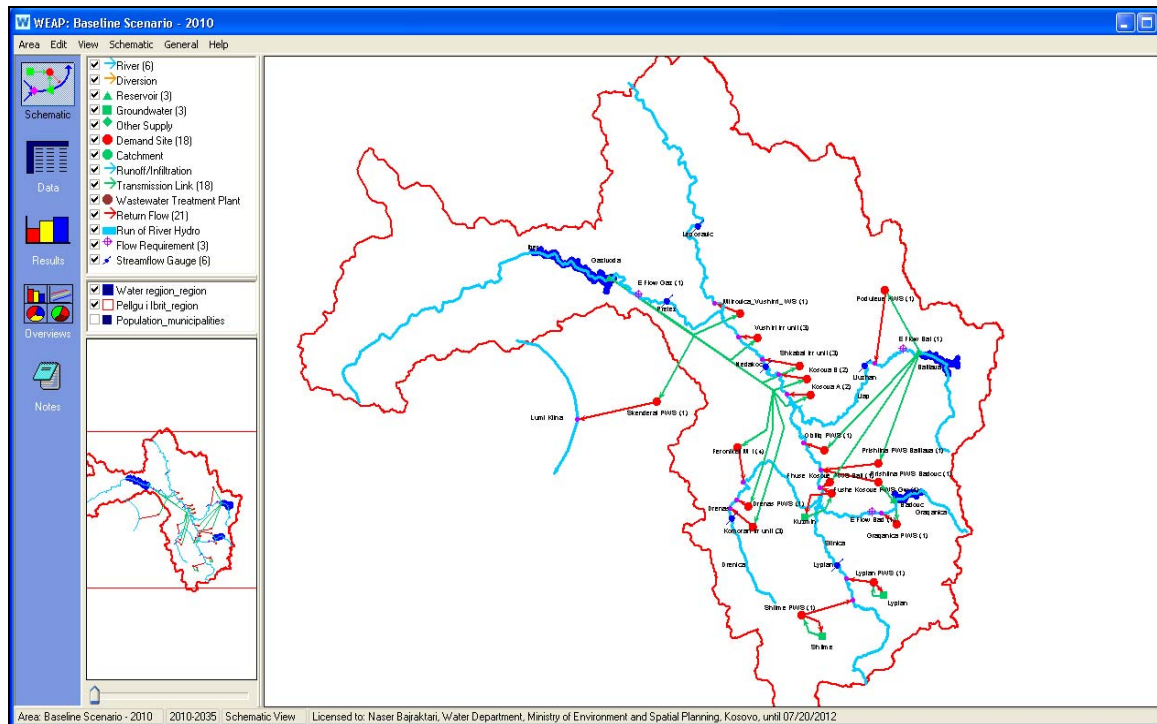
In the WEAP model you have to define two different intervals of time for which you are building the model: the “Current Accounts” and “Forecasting period”. The team defined for the “Current Accounts” data the 2010 scenario based on hydrological data from 1948 to 1972 and representing the current (2010) infrastructure baseline, and for the chosen time horizon - the interval 2011-2035. The “Currents Accounts” represent the basic definition of the water system as it currently exists, and forms the foundation of all scenario analysis.

WEAP activities included:

- creation of the schematic representation;
- incorporation of domestic, industrial and agricultural water use demands and climate and hydrologic parameters;
- obtaining the results of the modeling activity (flexible display of the model outputs in charts, maps and tables) and interpretation of its.

WEAP MODEL ARCHITECTURE

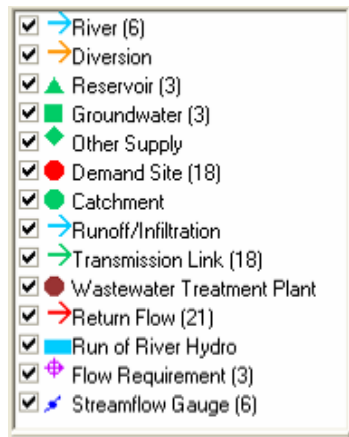
Figure 1 : Iber Basin - WEAP schematic



The Schematic View is the starting point for WEAP activities. The graphical interface is used to visualize the physical features of the water supply and demand system.

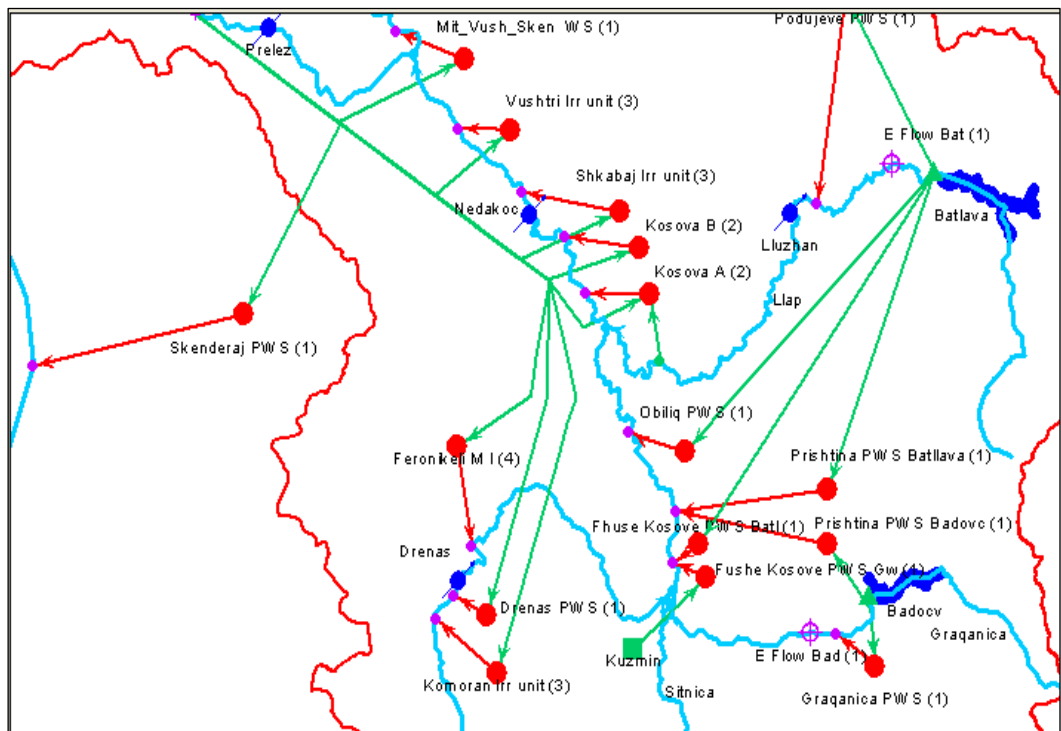
The symbols used in the WEAP model of Iber River Basin can be seen in the Figure 2:

Figure 2 : WEAP Iber Basin Symbols



- for river reaches : River
- for abstractions : Demand Site, Transmission Link and Return Flow
- for reservoir : Reservoir
- for groundwater reservoirs : Groundwater
- for Environmental Flows : Flow Requirement
- for gauging stations : Streamflow Gauge

Figure 3 : Example of WEAP Elements



GIS layers (.shp files) have been added as a background, for easy configuration of the water systems and to facilitate the visual comprehension of its.

The most important sources of water from our area of study are the rivers, the reservoirs and the Iber Lepenc Channel.

The main rivers (blue line symbol) from Iber River Basin are: Iber, Sitnica, Llap, Graqanica and Drenica.

The reservoirs (green triangle symbol) are: Gazivoda and Pridvorica on Iber River, Batlava on Llap River and Badovc on Graqanica River.

The Iber Lepenc channel (thick green line) is one of the most important source of water from Iber River Basin. Having a length of almost 50 km, it is starting from Pridvorica reservoir (a buffer reservoir) - north of Kosovo and ending next to the Kosovo B Power Plant, Obiliq city – middle part of Kosovo.

The main demand nodes considered in the model (red points) are:

- the surface water abstractions for the irrigation units : Vushtri, Shkabaj

and Komoran;

- the surface and underground water abstractions for the main potable water supply areas : Mitrovica, Prishtina, Podujeve, Obiliq, Fushe-Kosove, Drenas, Gracaniqa, Lypjan and Shtime Municipalities.
- the surface water abstractions for industry : power generation (Kosova A and Kosova B plants) and mining (Fenonikeli)

When a demand point is created, it is very important to indicate the level of priority for allocation of water. The model will attempt to supply the highest demand priority, then moving to lower priority until all the demands are met for the resources that are used.

For the baseline scenario, the team set up the following demand priority:

- 1, for potable water supply and flow requirements
- 2, for industry
- 3, for irrigation

Each demand site is connected with a supply resource (using the Transmission Link – green line symbol) and a part of the water used by the demand is going back, usually into the river (Return Flow - red line symbol).

Systems for water supply:

The water supply resources and the demand sites were grouped in three almost independent systems in order to easily assess the bulk water balance and the security vulnerabilities:

1. System 1: Gazivoda and Predvorica reservoirs, Iber Lepenc Channel and the water supply for Mitrovica (potable water supply), irrigations units and industry (power plants and mining).
2. System 2: Batlava and Badovc reservoirs with Pristina potable water supply and socio-economical activities.
3. System 3: Water supply of small towns and villages from groundwater and springs.

The systems 1, 2 and 3 will be tested under modeling activities in order to define if the security of water in these systems is respected, or, if it is not, to identify what measures we should implement for having water sufficient regarding all the needs (population needs as well as agriculture, industry and mining).

WEAP MODEL DATA INSERTION

Another key activity of WEAP modeling was to add the corresponding data in the WEAP model taking into account the water system architecture presented above.

The entered data are the following:

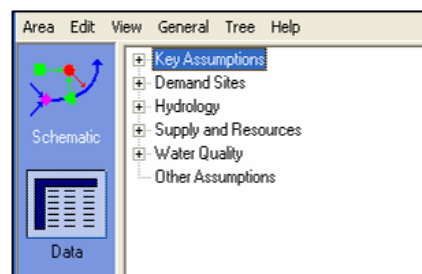
- measured or well known data;
- data based on assumptions.

The assumptions have been made for the following reasons:

- difficulties met for collecting the possible existing data;
- WEAP model simplification;
- poor knowledge of the studied water systems.

For implementing this modeling activity, the team has been integrated basic parameters in the model built, like:

- Key Assumptions
- Demand Sites
- Hydrology
- Supply and Resources.



a) Key Assumptions :

The key assumptions are user-defined variables that can be referenced for the analysis of the water system.

It is important to ensure that the units (for example m³ per month or m³ per year, etc.) of the parameter value for key assumptions match the units indicated for the variables located in the WEAP data tree.

Regarding the water demand key assumptions :

I. For potable water supply the following four parameters were defined:

- consumption per capital (in mc/year)
- network technical efficiency (in percentage)
- number of population
- return flow (in percentage).

Figure 4 : Key Assumption Prishtina Potable Water Supply

Key Assumptions			
These are user-defined variables that can be referenced elsewhere in your model			
Key Assumption	2010	Scale	Unit
Prishtina PWS Battlava			CMS
Consumption per capital	45		m ³
Network technical efficiency	60	Percent	
Number of population	324384*0.6		cap
Return flow	70	Percent	

The values which have been introduced in the WEAP model are the following:

- the consumption per capital is 150 l/day;
- the network efficiency is 60%; 40% of the water doesn't reach the consumers;
- the number of inhabitants of Prishtina supplied from the Battlava reservoir is 60% from the total number of inhabitants of Prishtina Municipality.

60% of the consumers are taking water from Battlava Reservoir and 40% from Badovc Reservoir.

These values were collected from Prishtina Regional Water Supply Company (Prishtina RWSC) .

In page 11 of the 2009 Report of Prishtina Water Supply Company, it is mentioned that based on the Statistical Office of Kosovo's National Study, the population projection for 2004 (in thousand people) is as shown in the Table 1.

Table 1 : Statistical Data - Population Projection in 2004 (Values in thousand people)

Population projections	
Municipality	2004
Prishtina	242
Fushe Kosove	49
Kasotropt/Obiliq	29
Shtime	31
Lipani	65
Besiane/Podujeve	96
Drenas/Gllototv	68
Total	580

According with the document *A34-1_Water_Balance_110211-1.xls* collected in March 2011 from Pristina RWSC the population data in 2010 are presented in the Table 2:

Table 2 : Population Projection in 2010

Municipality Name	2010	
	Total	Connected
Prishtina	439 920	403 234
Fushe Kosove	60 320	34 382
Obiliq	30 300	16 665
Shtime	37000	18 870
Lypjan	78000	51 100
Podujeve	111 725	78 208
Drenas	42 188	21 094

The number of inhabitants supplied by the Mitrovica Regional Water Supply Company is about 210 000 (Source : the Director of Mitrovica RWSC.)

- the return flow from sewage waters and network losses is estimated to 70%.

II. For irrigation, the following seven parameters were defined:

- conveyance efficiency (in percentage)
- conveyance return flow (in percentage)
- distribution efficiency (in percentage)
- distribution return flow (in percentage)
- field efficiency (in percentage)
- field return flow (in percentage)
- irrigated area (in hectares).

Figure 5: Key Assumption Komoran Irrigation Unit

Key Assumption	2010	Scale	Unit
Komoran Irr Unit			CMS
Conveyance Efficiency	55	Percent	
Conveyance return flow	40	Percent	
Distribution Efficiency	80	Percent	
Distribution return flow	10	Percent	
Field Efficiency	65	Percent	
Field return flow	18	Percent	
Irrigated Area	30		ha

The irrigation scheme is separated in 3 **sub-networks**:

1. the main channel, with the conveyance efficiency;
2. the secondary channel, with the distribution efficiency;
3. the field level, with the field efficiency.

The global efficiency of the scheme is the multiplication of these three sub-networks efficiencies.

III. For industry, the following two parameters were defined:

- the conveyance efficiency (in percentage)
- return flow (in percentage) .

Figure 6 : Key Assumption Industry

Key Assumption	2010	Scale	Unit
Industry			CMS
Conveyance Efficiency	55	Percent	
Conveyance return flow	90	Percent	

b) Demand sites: description of the water capture system and the demand sites for the baseline scenario

I. Water supply

Various functions have been entered into the WEAP “Demand Sites” using the assumptions added at the Key Assumptions stage.

To determinate the water supply demand, the team have choose the *“Specify yearly demand and monthly variation”* method of WEAP model. The functions used for this method make references to the key assumption and are exemplified in the following table:

Table 3 : Demand site – Pristina PWS Batllava

The screenshots show the following configuration details:

Demand Site	2010	Scale	Unit
Pristina PWS Batllava	Key\Pristina PWS Batllava\Number of population[cap]		cap

Demand Site	2010	Scale	Unit
Pristina PWS Batllava	Key\Pristina PWS Batllava\Consumption per capital[m ³ *100/Key\Pristina PWS Batllava\Network technical efficiency[%]		m ³ /person

Demand Site	2010	Scale	Unit
Pristina PWS Batllava	(1-Key\Pristina PWS Batllava\Return flow[%]/100)*100	Percent	

II. Irrigation

For adding the irrigation flows into WEAP model, the team has used the *“Specify monthly demand”* method. The irrigation data required for water use by this method are:

1. the Monthly Demand (crop demand divided by the global efficiency)
2. the Consumption rate (percentage of water lost from the system).

The irrigated area used for the baseline scenario 2010 is presented in the next table:

Table 4 : Irrigation scheme and irrigated area

Irrigation scheme	Area projected (ha)	Area rehabilitated (ha)	Area irrigated 2006	Area irrigated 2007	Area irrigated 2008	Area irrigated 2009	Area irrigated 2010
Vushtrri	7200	3170	603	860.28	959	822	660
Shkabaj	7100	2000	53	165.32	213.4	240	240
Komoran	5620	2750	5.5	83.37	252	70	30
Total	19920	7920	661.5	1108.97	1424.4	1132	930

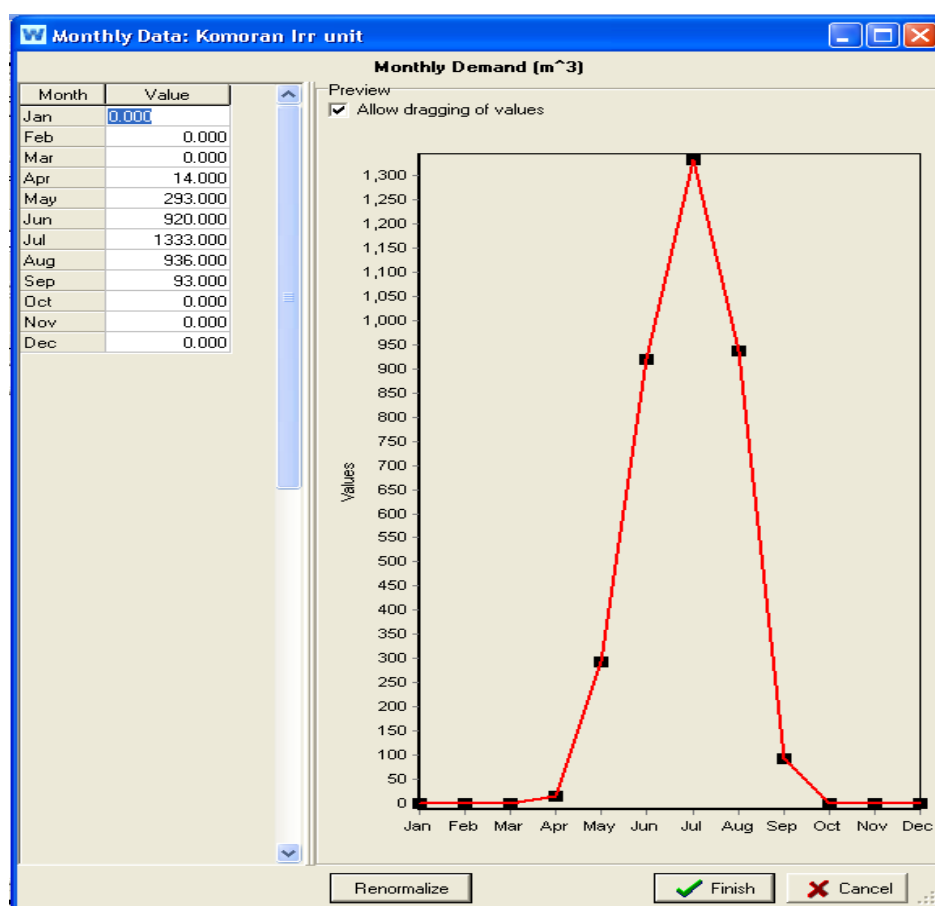
Our expert for irrigation and agriculture, Mrs. Florence PINTUS, has used the Cropwat 8.0 software and the total net crop irrigation requirements have been estimated at 3589 m³/ha/year.

Table 5 : Crop water requirement (mm/month)

Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
0	0	0	1,4	29,3	92,0	133,3	93,6	9,3	0	0	0	358,9

Example : Komoran Irrigation unit: Mean water demand per ha, for irrigated area in Iber System, was added in the model like a "Monthly time series wizard" as can be seen in the Figure nr.7.

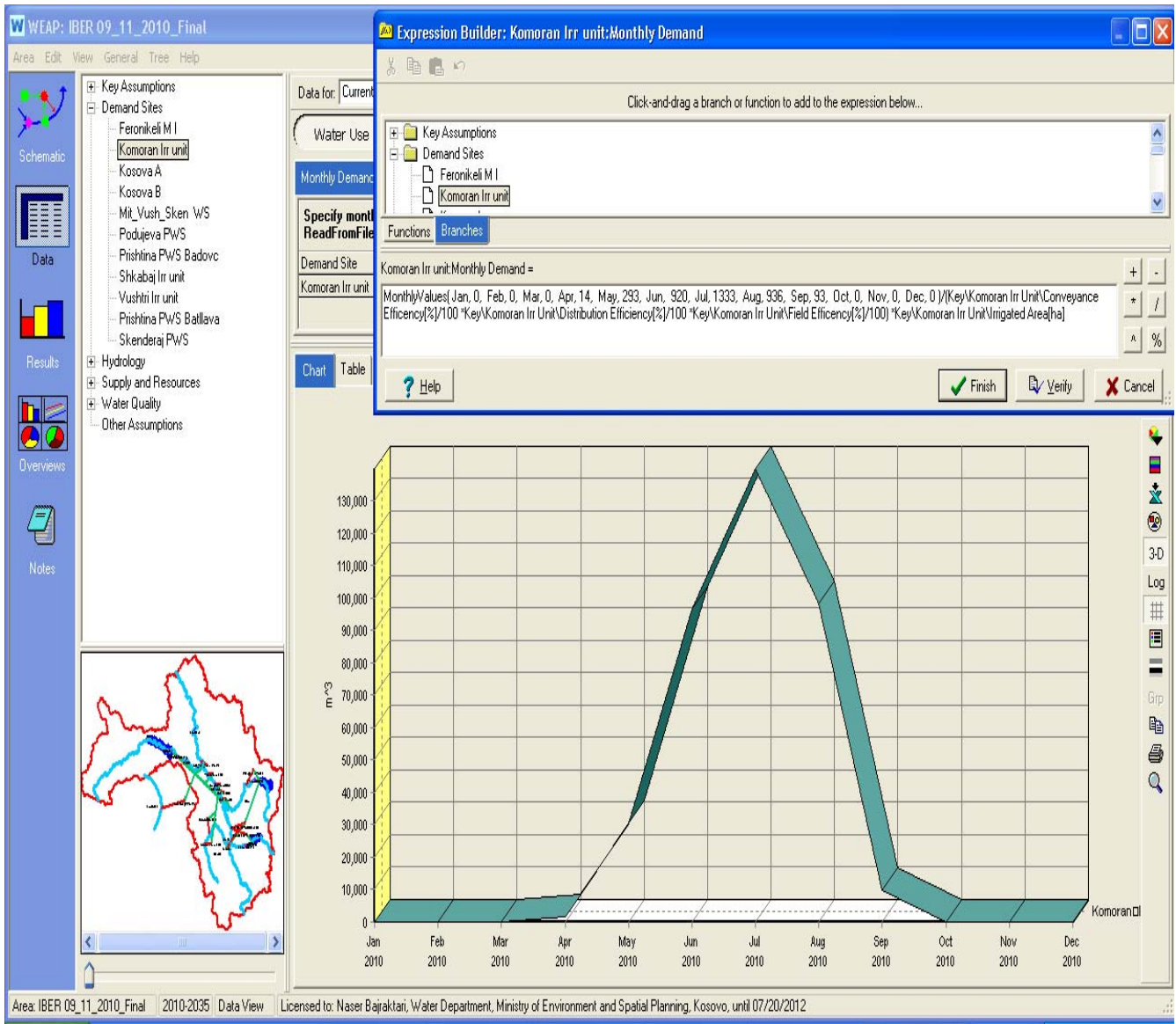
Figure 7 : Monthly Demand Komoran Irrigation Unit



The detailed monthly demand is shown in Figure nr. 8, using in the "Expression builder" the mean water demand and the key assumption data created before for

irrigation scheme efficiencies and for the surface of irrigated area.

Figure 8 : Monthly Demand Komoran Irrigation Unit – Expression Builder



As can be seen on the graph, the irrigation period in our area of study is starting in April and ending in September. The maximum value for water demand is around 140 000 m³ in July.

III. Industry

The current industrial water demand can be synthesized as follows:

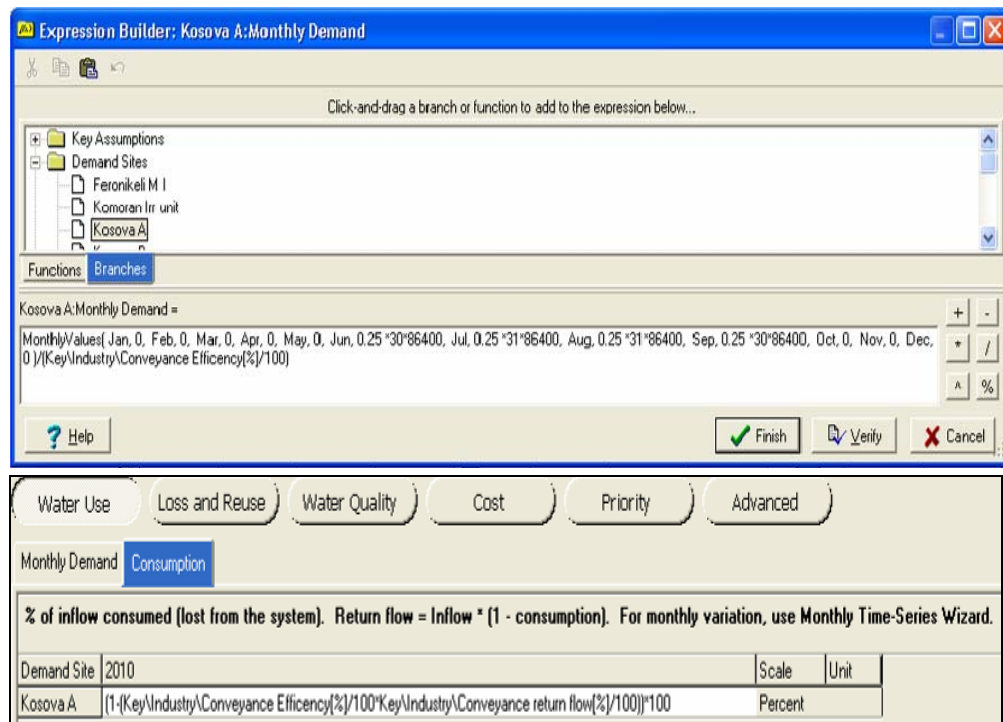
Table 6 : Water demand for industry in 2010

Industry	Monthly consumption in m ³ /s 2010	Source of water
Kosovo A	0.25 (only during summer)	Iber Lepenc channel
Kosovo B	0.4	Iber Lepenc channel
Feronikeli	0.1	Iber Lepenc channel

The data used in the table are data collected by interview with Mr. Arberor PREKAZI, from IL Company.

The water demand was obtained using the WEAP method *“Specify monthly demand”*, taking into consideration the assumptions made in the Key Assumptions stage, the efficiency of the network and the losses from the system.

Figure 9: Industry demand site example - Kosova A



The values which are introduced for the demand site, has to be in m³/month (monthly values). These values can be calculated and captured manually in the model, like a monthly time series, or can be calculated automatically using Excel and saved in a specific format (*the Comma-Separated Values (CSV) format*). Note : It is important to mention that the location of this table has to be the same that the location of WEAP model folder, otherwise is impossible to use the table created. The WEAP function which can read it is *“ReadFromFile”* function, from *“Expression Builder”*.

c) Hydrology

The third parameter which has to be introduced in WEAP model is Hydrology.

Here the user has the possibility to define the type of water year for the baseline scenario. The water year can be:

1. very dry
2. dry
3. normal
4. wet
5. very wet.

The team has considered for the baseline scenario that **the year 2010 is a normal year.**

d) Supply and Resources

Under the Data View it is possible to enter all the hydrological inputs for the model.

1) River

The hydrological data which have been added at this stage were data regarding the reservoirs, E-Flow, inflows and outflows.

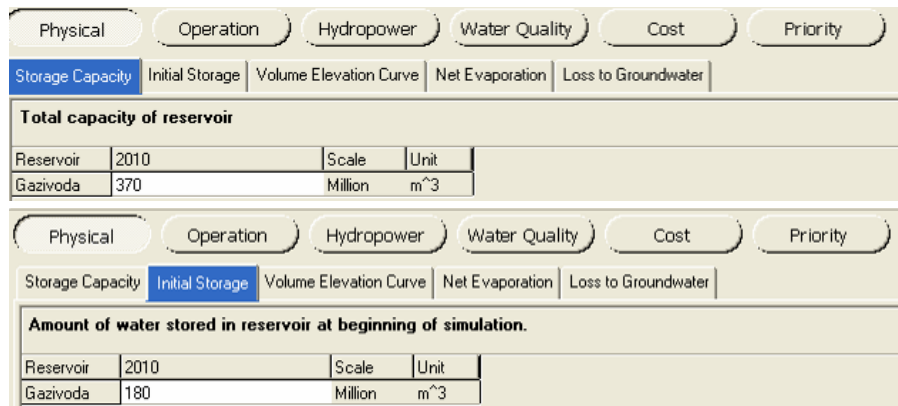
Reservoirs :

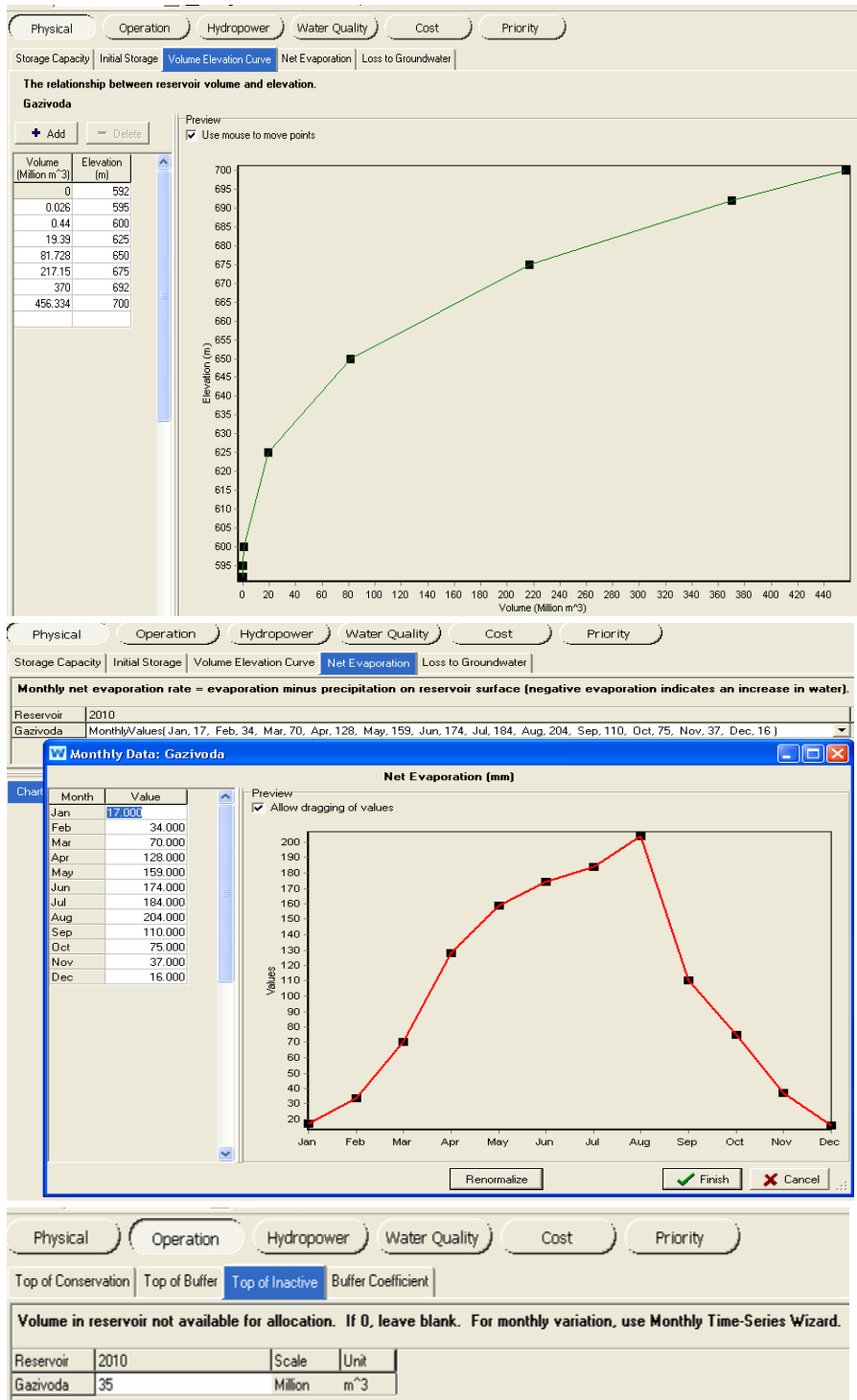
Gazvioda, Batllava and Badovc reservoirs were also modeled in WEAP. For that, different types of reservoir characteristics have been added in the model.

Examples of reservoir characteristics are:

1. storage capacity;
2. initial storage;
3. volume elevation curve (relation between reservoir volume and elevation);
4. net evaporation (evaporation minus precipitation on reservoir surface);
5. the volume in reservoir which is not available for allocation.

Figure 10: Gazivoda reservoir characteristics





Flow Requirements :

The flow requirement element (E-Flow) represent the minimum flow required at a river point to meet the social and environmental flow (for recreation, navigation, water quality, biodiversity, etc.).

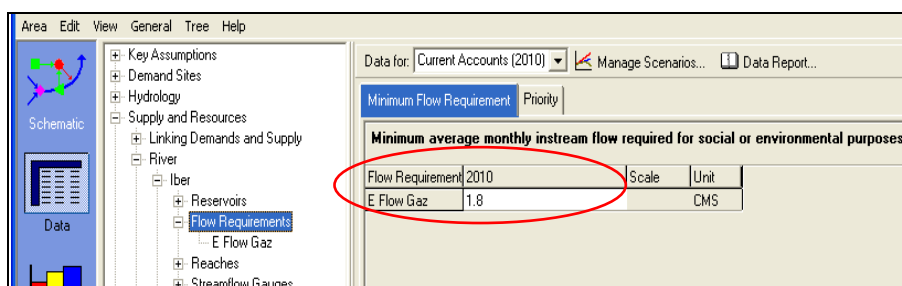
In our model, three E-Flow points were added: on Iber, Graqanica and Llap rivers.

Table 7: E-Flow Values in Iber River Basin

E-Flow		
Iber River	Llap River	Graçanica River
1.8 m ³ /s/month	0.5 m ³ /s/month	0.3 m ³ /s/month

The E-Flow value for Iber River is a value calculated by the hydraulic team and the other two values are estimated values.

Figure 11: E-Flow required on Iber River



Streamflow Gauging Stations:

Inflow and outflow

The historical flows of the rivers (from 1952 to 1997), from our area of study, were calculated by the hydraulic team (by interpolation), taking into consideration that only some of these values were available. These flows have been entered into the WEAP model (for different hydrometrical station), like a **Streamflow Data**, under the *.txt* format, using the *ReadFromFile* function.

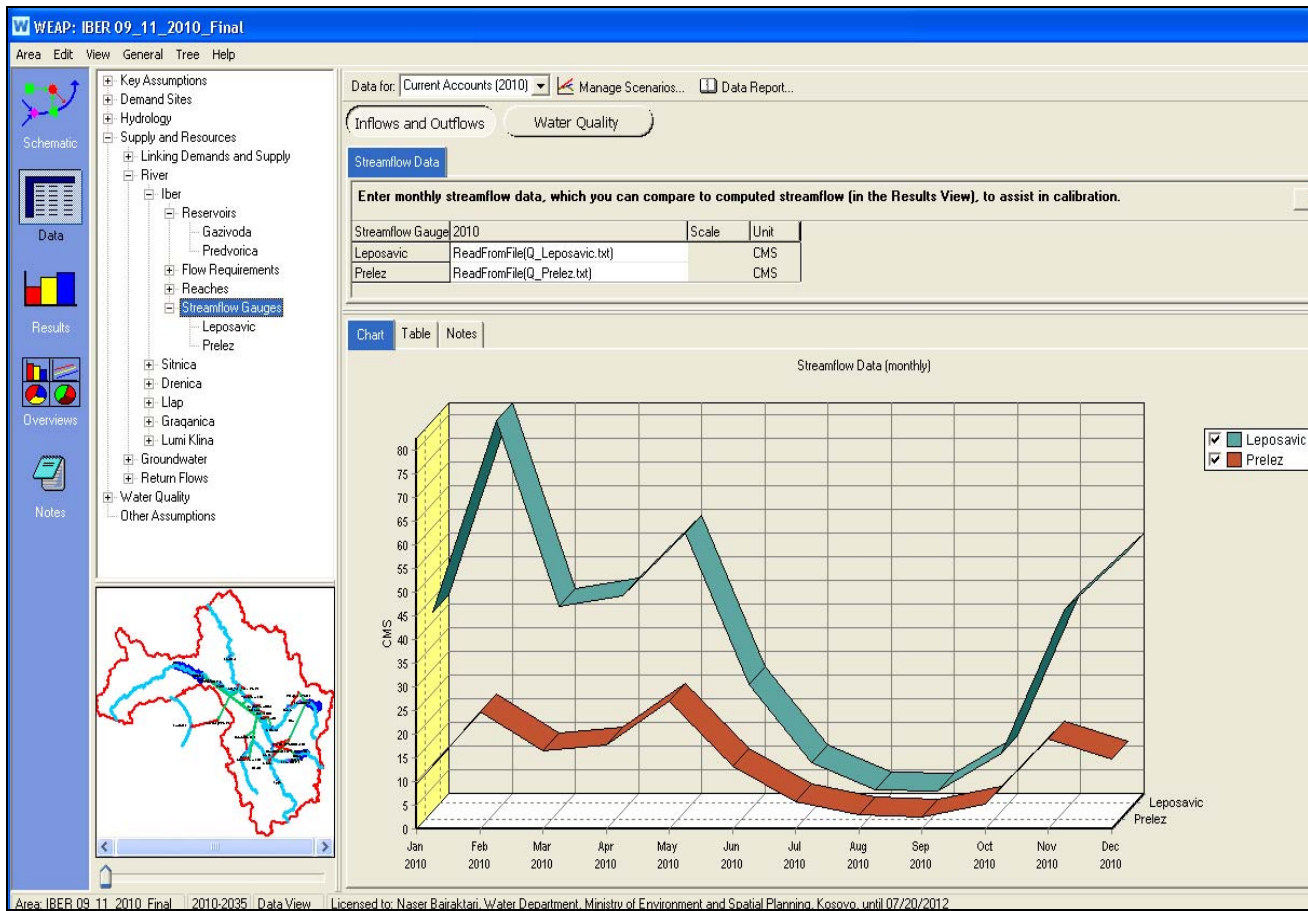
Table 8: Leposavic Hydrometric Station on Iber river

The screenshot shows a text file window titled 'Q_Leposavic.txt'. The file contains the following data:

Year	Month	Flow (m ³ /s)
2010	1	42.10
2010	2	82.50
2010	3	43.20
2010	4	45.50
2010	5	58.80
2010	6	26.80
2010	7	10.30
2010	8	4.44
2010	9	4.32
2010	10	12.30

First column represent the year, second column represent the month and third column represent the flow (m³/s) registered by the Leposavic hydrometric station.

Figure 12: Streamflow data for Leposavic and Prelez hydrometric stations, on Iber river



2) Groundwater

The third set of parameters which has to be captured into the WEAP model, at the "Supply and Resources" stage is groundwater.

The data to be included are:

- the storage capacity (theoretical capacity of aquifer);
- the initial storage (the amount of water stored in aquifer when the simulation of the model is starting);
- the maximum withdrawal (the maximum quantity of water which is monthly withdrawn from the aquifer);
- the natural recharge of aquifer(monthly inflow to the groundwater source).

In our area of study three underground reservoirs were included into the WEAP model:

- **Kuzmin** – for Fushe Kosove Municipality
- **Shtime** – for Shtime Municipality
- **Lypjan** – for Lypjan Municipality

The data included here are estimated data because no measured or known data were available.

These assumptions were made on the basis of the information collected from the *Report of Regional Water Supply Company of Prishtina*, from 2009, where it is mentioned at the "Transmission" chapter, page 25 that Shtime and Lypjan Municipalities are supplied by their own independent groundwater sources and that total capacity of the underground reservoirs are : for Kuzmin 150 l/s and for Shtime 50 l/s (page 6, *Groundwater Resources*). Taking into consideration these values we estimated that the capacity of Lypjan reservoir is about 85 l/s.

In the Table no.9 can be seen some of the principal characteristics of groundwater reservoirs.

Table 9 : Characteristics of groundwater reservoirs

Reservoir	Storage capacity (Mil mc)	Initial storage (Mil mc)	Maximum withdrawal (Mil mc)
Kuzmin	4.73	3.00	4.73
Shtime	1.57	0.7	1.57
Lypjan	2.68	1	2.68

Figure 13 : Kuzmin Groundwater Reservoir

The figure displays three screenshots of the WEAP model interface, each showing the configuration for the Kuzmin Groundwater Reservoir. The interface includes a tree view on the left and a data table on the right.

Top Screenshot: Storage Capacity

- Tree View: Key Assumptions, Demand Sites, Hydrology, Supply and Resources, Linking Demands and Supply, River, Groundwater, Kuzmin.
- Data Table:

Groundwater	2010	Scale	Unit
Kuzmin	4.73	Million	m ³

Middle Screenshot: Initial Storage

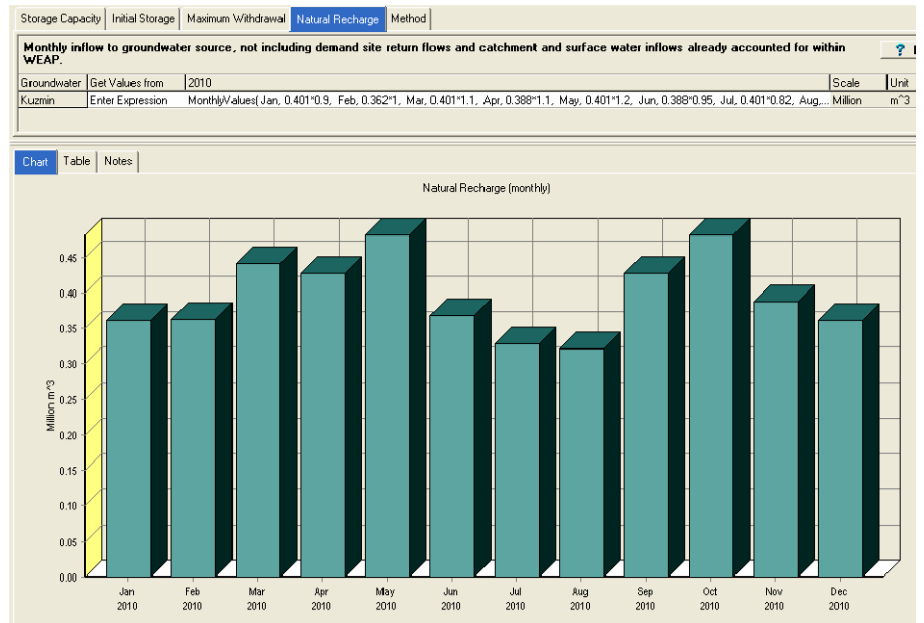
- Tree View: Key Assumptions, Demand Sites, Hydrology, Supply and Resources, Linking Demands and Supply, River, Groundwater, Kuzmin.
- Data Table:

Groundwater	2010	Scale	Unit
Kuzmin	3	Million	m ³

Bottom Screenshot: Maximum Withdrawal

- Tree View: Key Assumptions, Demand Sites, Hydrology, Supply and Resources, Linking Demands and Supply, River, Groundwater, Kuzmin.
- Data Table:

Groundwater	2010	Scale	Unit
Kuzmin	4.73	Million	m ³



3) Return Flow

The return flow is the water percentage of the total outflow and this value represents the quantity of water going back into the river or underground. The rate has to sum 100%, without taking into consideration the losses from the system.

For example, when a demand site is supplied with water from two sources (reservoir and groundwater) we have made the assumption that 57% of the outflow is going back into the aquifer and 43% represent the return flow into the river. This assumption was made on the basis of the WEAP Tutorial Model, because no data regarding this aspect were available.

III.2. BASELINE SCENARIO RESULTS & INTERPRETATION

To see the results of the model that we have built, we use the **Result View** interface. It is the third parameter of WEAP and here is possible to see the results presented like tables, charts or maps.

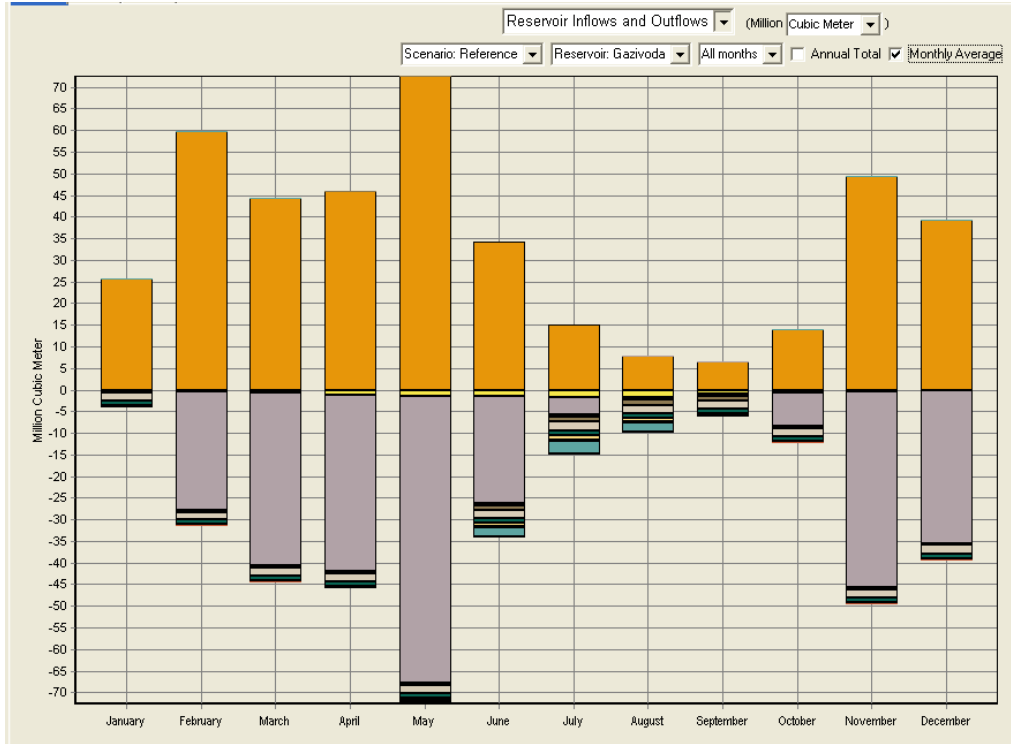
The most important three questions at the results chapter it is: **“What is the water balance for Iber River Basin Systems?”**

To answer to this question it is needed to present the cumulated monthly inflows and outflows of reservoirs and to interpret them.

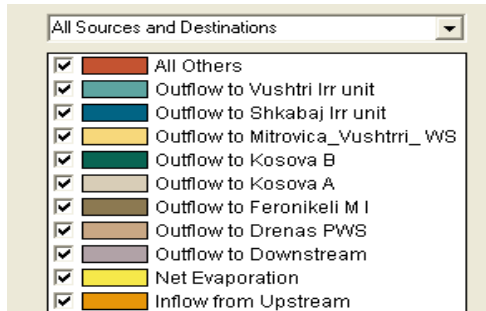
The team considered necessary to define a **risk indicator** value for each dam as a critical value which will represent the limit of water available in the hypotheses of a **very dry year**.
Based on WEAP functions, the inflows of a very dry year represent 50 % less then the inflows of a normal year (2010).

A. SYSTEM 1 WATER BALANCE - GAZIVODA SYSTEM

Figure 14 : WEAP Inflows and Outflows for Gazivoda Reservoir in 2010



Legend:



The legend is showing the inflow in the reservoir (+ values) and different outflows from the reservoir (- values).

Table 10 : Monthly inflows and outflows for Gazivoda Reservoir (mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from Upstream (mc)	25685856	59754240	44461440	45878400	72584640	34214400	15159744	7928064	6505920	14034816	49507200	39372480	415087200
Outflow to demands (mc)	4059796.214	3834554.645	4536328.567	4977310.755	6289305.511	9515170.607	11113357.65	10002237.12	6250539.509	4581284.449	4113589.221	4050805.038	73324279.29
E-flow (mc)	4821120	4354560	4821120	4665600	4821120	4665600	4821120	4821120	4665600	4821120	4665600	4821120	56764800
Total Outflow (mc)	8880916.214	8189114.645	9357448.567	9642910.755	11110425.51	14180770.61	15934477.65	14823357.12	10916139.51	9402404.449	8779189.221	8871925.038	114886266
Bulk of water (mc)	16804939.79	51565125.35	35103991.43	36235489.25	61474214.49	20033629.39	-774733.6498	-6895293.123	-4410219.509	4632411.551	40728010.78	30500554.96	9999158790

Table 11 : Water Balance of Gazivoda Reservoir - monthly values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from upstream (10 ⁶ mc)	25.69	59.75	44.46	45.88	72.58	34.21	15.16	7.93	6.51	14.03	49.51	39.37	415.09
Total Outflow (10 ⁶ mc)	8.88	8.19	9.36	9.64	11.11	14.18	15.93	14.82	10.92	9.40	8.78	8.87	130.09
Bulk of water (10⁶ mc)	16.80	51.57	35.10	36.24	61.47	20.03	-0.77	-6.90	-4.41	4.63	40.73	30.50	285.00

As can be seen in Table 11, the annual inflow into Gazivoda reservoir is about 415 million m³. To be noted that the monthly inflow in the reservoir varies from 72.58 million m³ (maximum value) in May to 6.51 million m³ (minimum value) in September.

Table 12 : Cumulated values of inflows and outflows for Gazivoda Reservoir

	January	February	March	April	May	June	July	August	September	October	November	December
Inflow from upstream cumulated value (10 ⁶ mc)	25.69	85.44	129.90	175.78	248.36	282.58	297.74	305.67	312.17	326.21	375.71	415.09
Outflow cumulated value (10 ⁶ mc)	8.88	17.07	26.43	36.07	47.18	61.36	77.30	92.12	103.04	112.44	121.22	130.09

Table 13 : Risk indicator for Gazivoda – very dry year tested on 2010 baseline scenario – cumulated values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December
Risk indicator cumulated value	12.84	42.72	64.95	87.89	124.18	141.29	148.87	152.83	156.09	163.10	187.86	207.54

Figure 15 : Gazivoda Monthly Inflow and Outflow (mil mc)

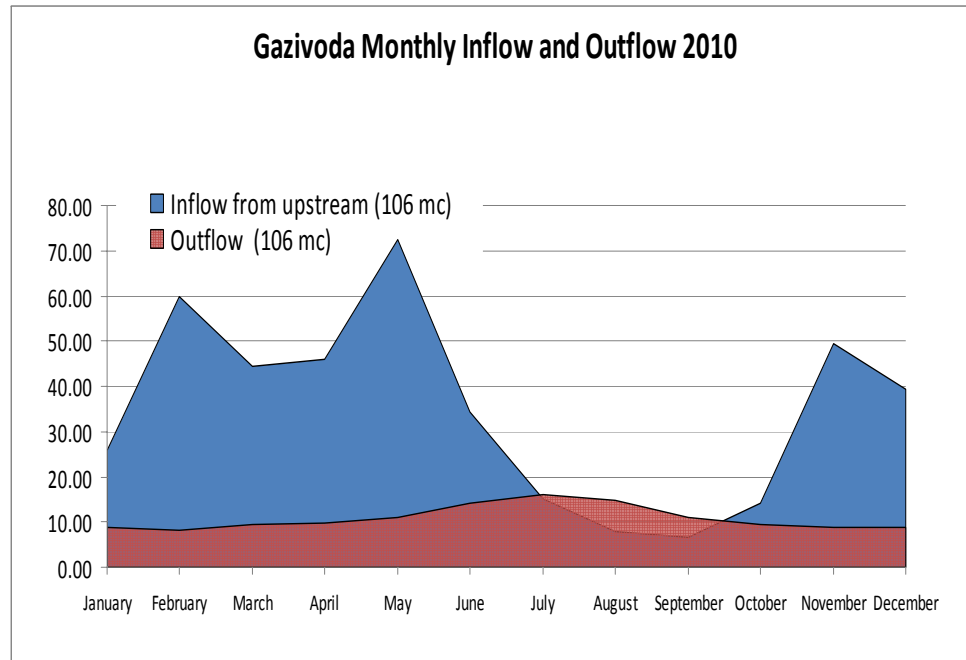
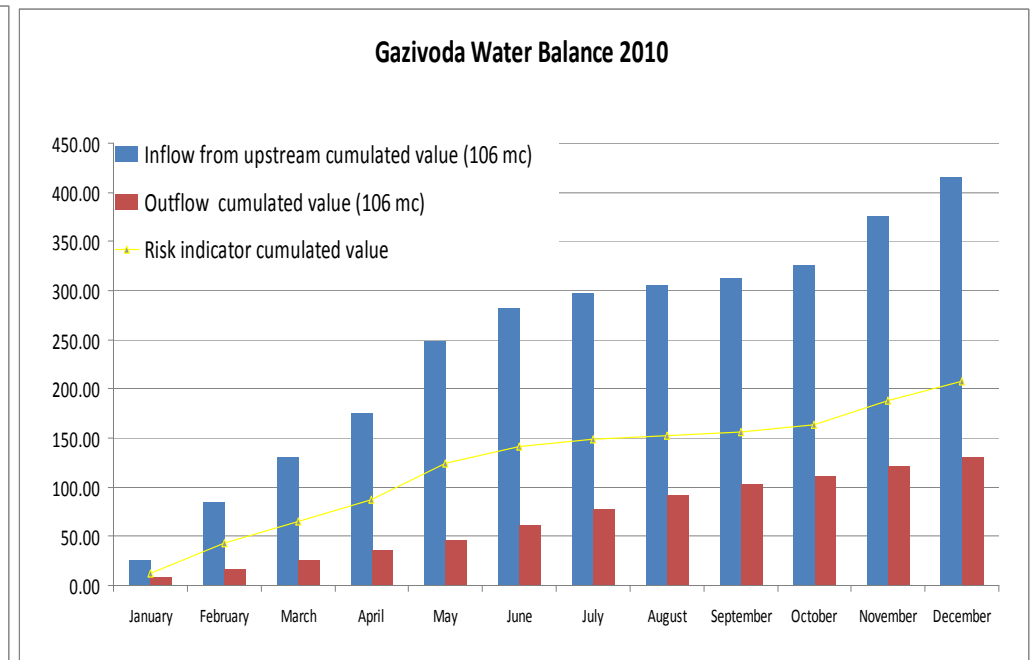


Figure 16 : Gazivoda Water Balance 2010 – cumulated values (mil mc)

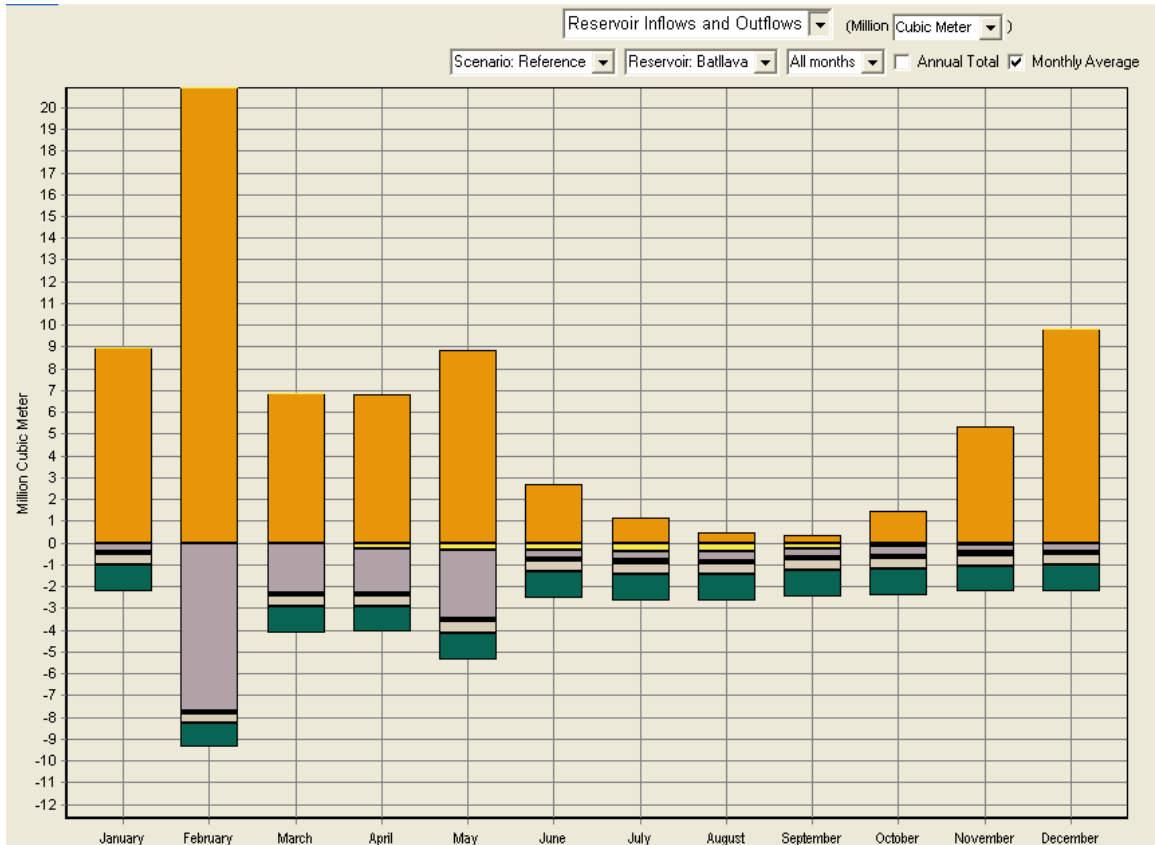


Results Interpretation

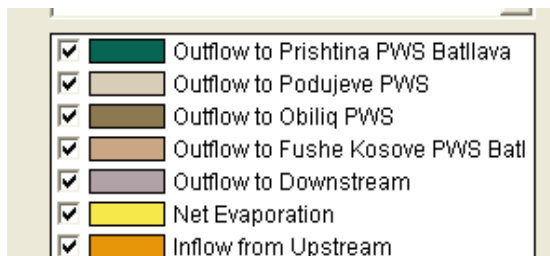
- A 2010 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Table 11 and Figure 15. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during spring and winter seasons, but in the summer period we can have a deficit of water, especially in August, due to the intense agriculture activities when actually we still need approximately 6.9 million m³ of water. These results don't take into consideration the water cumulative effect of the reservoir. In fact, the graph above (Figure 16) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which mean that for the current situation 2010 the system 1 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 1; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that even in a worst case situation (very dry year), the demand will be however satisfied taking into account also the effect of climate change on water consumption increasing.

B. SYSTEM 2 WATER BALANCE – BATLLAVA–BADOVC SYSTEM

Figure 17 : WEAP Inflows and Outflows for Batllava Reservoir in 2010



Legend:



The legend is showing the inflow in the reservoir (+ values) and different outflows from the reservoir (- values).

Table 14 : Monthly inflows and outflows for Batllava Reservoir (mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from Upstream (mc)	8953605.303	20911000.8	6864430.73	6808040.9	8868332.87	2677829.42	1155441.45	464734.751	363095.5146	1458158.578	5322650.16	9806329.6	73653650
Outflow to Demands (mc)	1876948.29	1695308.14	1876948.29	2061506.58	2189263.29	2168901.58	2288198.29	2297598.29	2110386.58	2051215.29	1876701.58	1876948.29	2436992400
E-flow (mc)	1339200	1209600	1339200	1296000	1339200	1296000	1339200	1339200	1296000	1339200	1296000	1339200	15768000
Total Outflow (mc)	3216148	2904908	3216148	3357507	3528463	3464902	3627398	3636798	3406387	3390415	3172702	3216148	40137924.5
Bulk of water (mc)	5737457	18006093	3648282	3450534	5339870	-787072	-2471957	-3172064	-3043291	-1932257	2149949	6590181	33515725.6

Table 15 : Water Balance of Batllava Reservoir – monthly values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from upstream (106 mc)	8.95	20.91	6.86	6.81	8.87	2.68	1.16	0.46	0.36	1.46	5.32	9.81	73.65
Total Outflow (106 mc)	3.22	2.90	3.22	3.36	3.53	3.46	3.63	3.64	3.41	3.39	3.17	3.22	40.14
Bulk of water (106 mc)	5.74	18.01	3.65	3.45	5.34	-0.79	-2.47	-3.17	-3.04	-1.93	2.15	6.59	33.52

As can be seen in Table 15, the annual inflow into Batllava reservoir is about 73.65 million m³. To be noted that the inflow in the reservoir varies from 20.91 million m³ (maximum value) in February to 0,36 million m³ (minimum value) in September.

Table 16 : Cumulated values of inflows and outflows for Batllava Reservoir

	January	February	March	April	May	June	July	August	September	October	November	December
Inflow from upstream cumulated value (10 ⁶ mc)	8.95	29.86	36.73	43.54	52.41	55.08	56.24	56.70	57.07	58.52	63.85	73.65
Outflow cumulated value (10 ⁶ mc)	3.22	6.12	9.34	12.69	16.22	19.69	23.32	26.95	30.36	33.75	36.92	40.14

Table 17 : Risk indicator for Batllava – cumulated values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December
Risk indicator cumulated value	4.48	14.93	18.36	21.77	26.20	27.54	28.12	28.35	28.53	29.26	31.92	36.83

Figure 18 : Batllava Monthly Inflow and Outflow (mil mc)

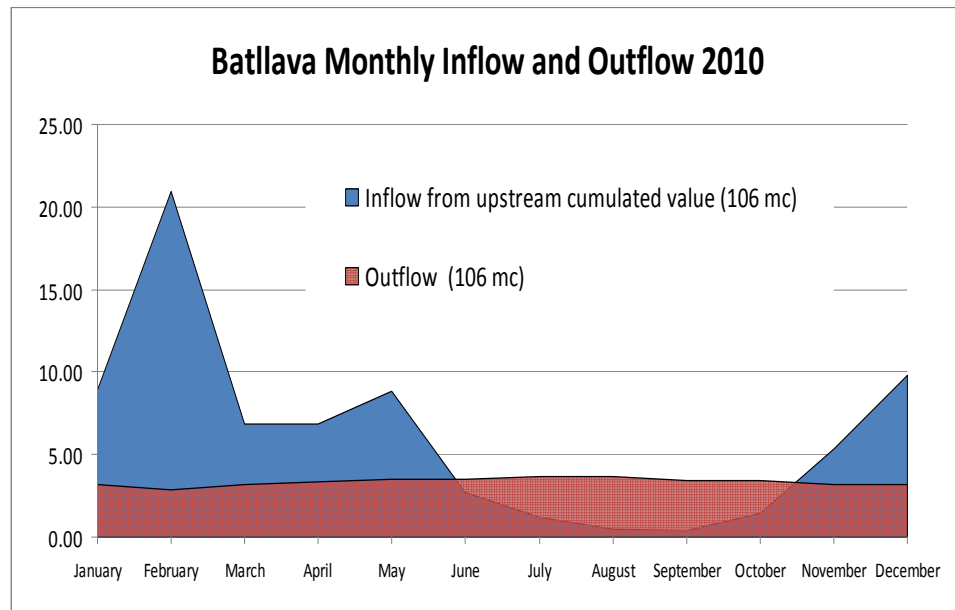
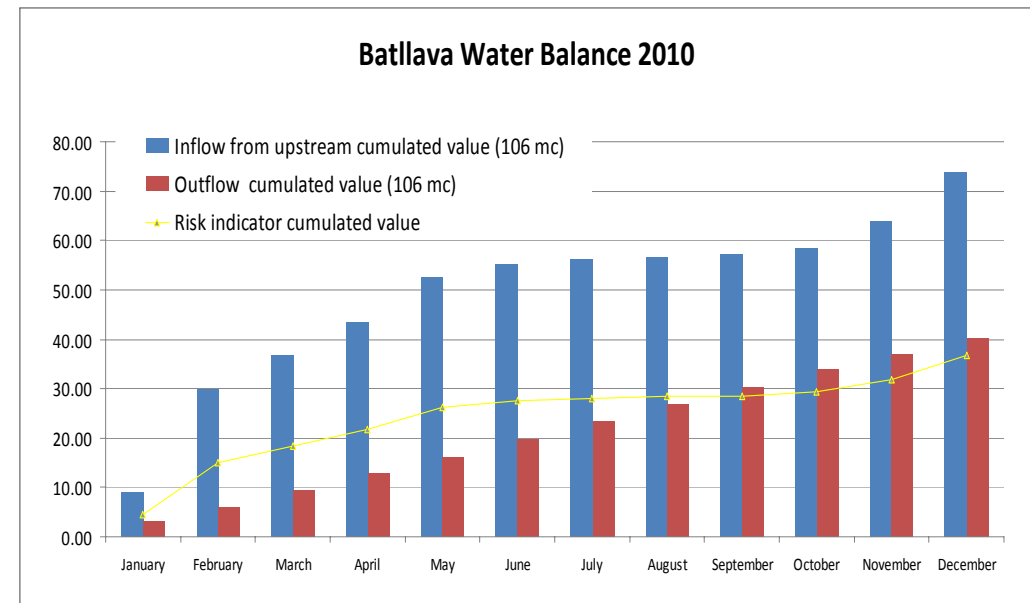


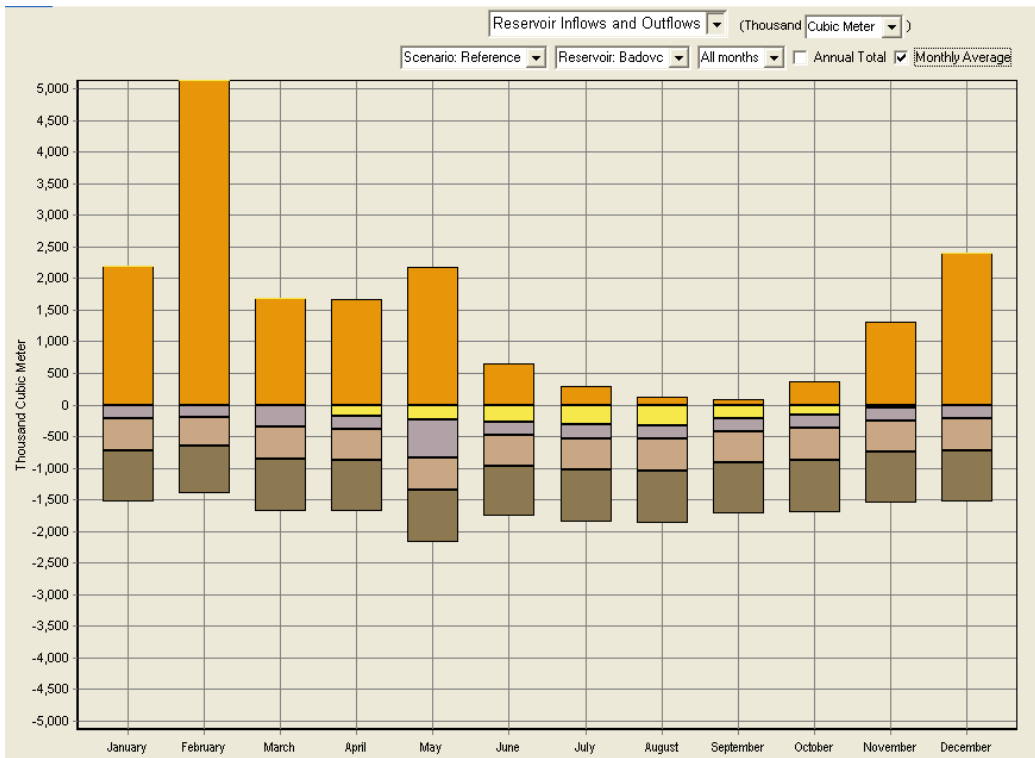
Figure 19 : Batllava Water Balance 2010 – cumulated values (mil mc)



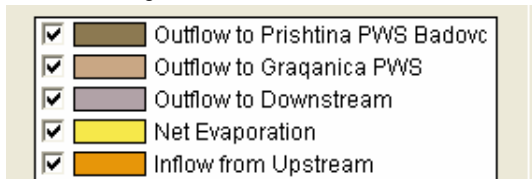
Results Interpretation

- A 2010 monthly distribution of the inflow and outflow of Batllava reservoir can be seen in Table 15 and Figure 18. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during spring and winter seasons, but in the summer period we can have a deficit of water, especially in August when actually we still need approximately 3.17 million m³ and 3.04 million m³ in September, due to the intense agriculture activities. These results don't take into consideration the water cumulative effect of the reservoir. In fact, the graph above (Figure 19) shows clearly that the cumulated demand for Batllava dam (red column) is under the cumulated inflow normal year (blue column) which means that for the current situation 2010 the system 2 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 2; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), the red column being so close to the yellow line, the system 2 will be in a critical situation, when the demand will not be fully satisfied. **In consequence, to avoid an hydraulic stress, some measures have to be developed (leakage reduction, dam, new sources of water, reduction of illegal connection, etc) to then allows water security demands in this whole system, for any climate situation (normal and very dry).**

Figure 20 : WEAP Inflows and Outflows for Badovc Reservoir in 2010



Legend:



The legend is showing the inflow in the reservoir (+ values) and different outflows from the reservoir (- values).

Table 18 : Monthly inflows and outflows for Badovc Reservoir (mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from Upstream (mc)	2197190.831	5131503.75	1684512.97	1670675.06	2176265.2	657132.189	283542.245	114044.667	89102.66966	357828.2211	1306164.13	2406447.1	180744097
Outflow to demands (mc)	1328776.356	1200185.1	1328776.36	1473652.6	1567996.36	1555912.6	1643776.36	1650976.36	1511092.603	1484836.356	1339912.6	1328776.4	17414670
E-flow (mc)	803520	725760	803520	777600	803520	777600	803520	803520	777600	803520	777600	803520	9460800
Total Outflow (mc)	2132296	1925945	2132296	2251253	2371516	2333513	2447296	2454496	2288693	2288356	2117513	2132296	268754700
Bulk of water (mc)	64894	3205559	-447783	-580578	-195251	-1676380	-2163754	-2340452	-2199590	-1930528	-811348	274151	-8801061

Table 19 : Water Balance of Badovc Reservoir – monthly values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Inflow from upstream (10 ⁶ mc)	2.20	5.13	1.68	1.67	2.18	0.66	0.28	0.11	0.09	0.36	1.31	2.41	18.07
Total Outflow (10 ⁶ mc)	2.13	1.93	2.13	2.25	2.37	2.33	2.45	2.45	2.29	2.29	2.12	2.13	26.88
Bulk of water (10⁶ mc)	2.20	5.13	1.68	1.67	2.18	0.66	0.28	0.11	0.09	0.36	1.31	2.41	18.07

As can be seen in Table 19, the annual inflow into Badovc reservoir is about 18 million m³. To be noted that the inflow in the reservoir varies from 5.13 million m³ (maximum value) in February to 0,09 million m³ (minimum value) in September.

Table 20 : Cumulated values of inflows and outflows for Badovc Reservoir

	January	February	March	April	May	June	July	August	September	October	November	December
Inflow from upstream cumulated value (10 ⁶ mc)	2.20	7.33	9.01	10.68	12.86	13.52	13.80	13.91	14.00	14.36	15.67	18.07
Outflow cumulated value (10 ⁶ mc)	2.13	4.06	6.19	8.44	10.81	13.15	15.59	18.05	20.34	22.63	24.74	26.88

Table 21 : Risk indicator for Badovc – cumulated values (mil mc)

	January	February	March	April	May	June	July	August	September	October	November	December
Risk indicator cumulated value	1.10	3.66	4.51	5.34	6.43	6.76	6.90	6.96	7.00	7.18	7.83	9.04

Figure 21 : Badovc Monthly Inflow and Outflow (mil mc)

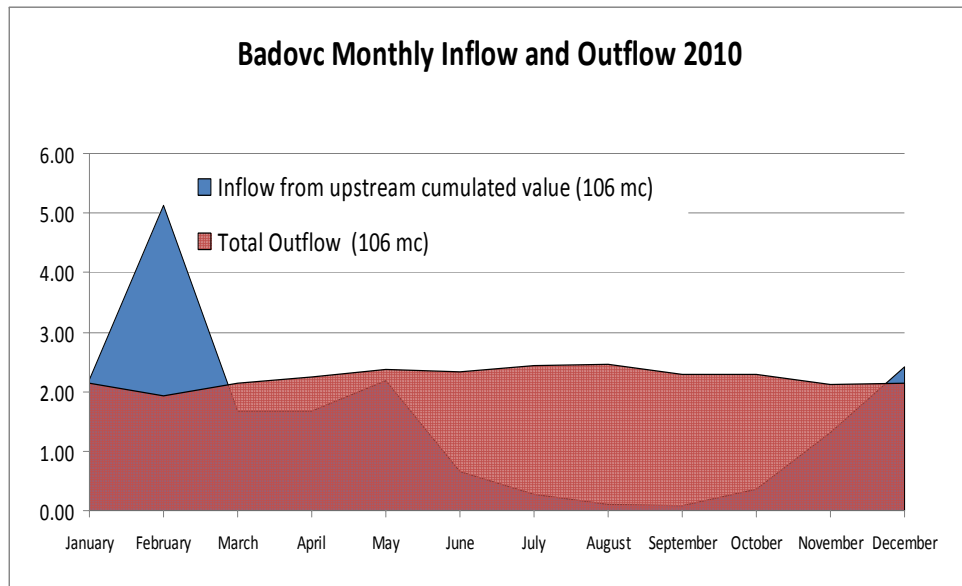
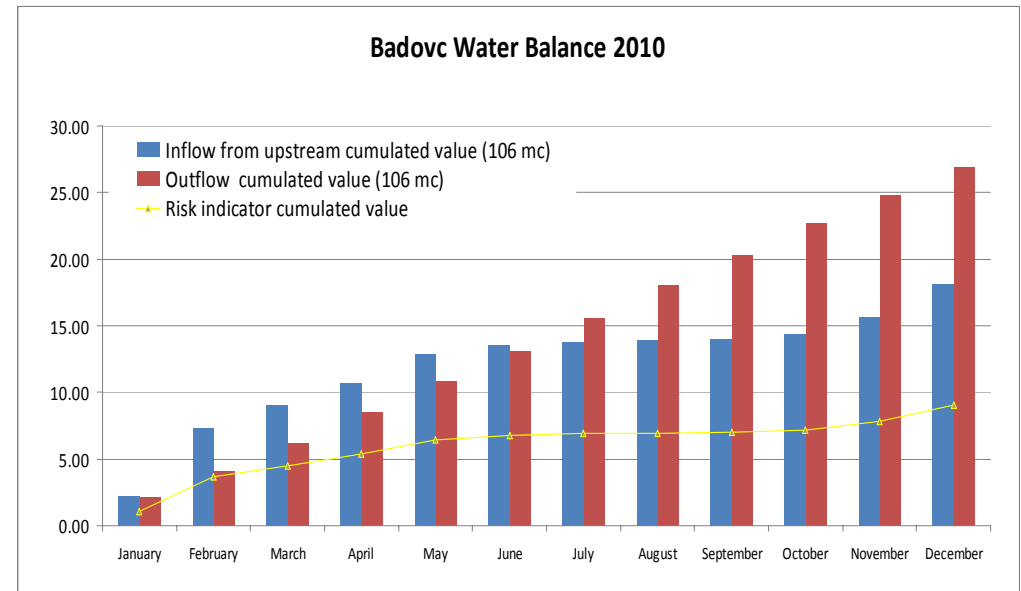


Figure 22 : Badovc Water Balance 2010 – cumulated values (mil mc)



Results Interpretation

- A 2010 monthly distribution of the inflow and outflow of Badovc reservoir can be seen in Table 19 and Figure 21. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during spring and winter seasons, but we have a deficit of water from June to October. The graph above (Figure 22) shows clearly that the cumulated demand for Badovc dam (red column) is above the cumulated inflow normal year (blue column) which mean for the current situation 2010 that the system 2 does not satisfy all its demands.
- In consequence,, some measures have to be developed (leakage reduction, dam, new sources of water, reduction of illegal connection, etc) to then allows water security demands in this whole system, for any climate situation (normal and very dry).

C. SYSTEM 3 WATER BALANCE – GROUNDWATER SYSTEM (KUZMIN+LYPJAN+SHTIME RESERVOIRES)

Figure 23 : Kuzmin Monthly Inflow and Outflow (mil mc)

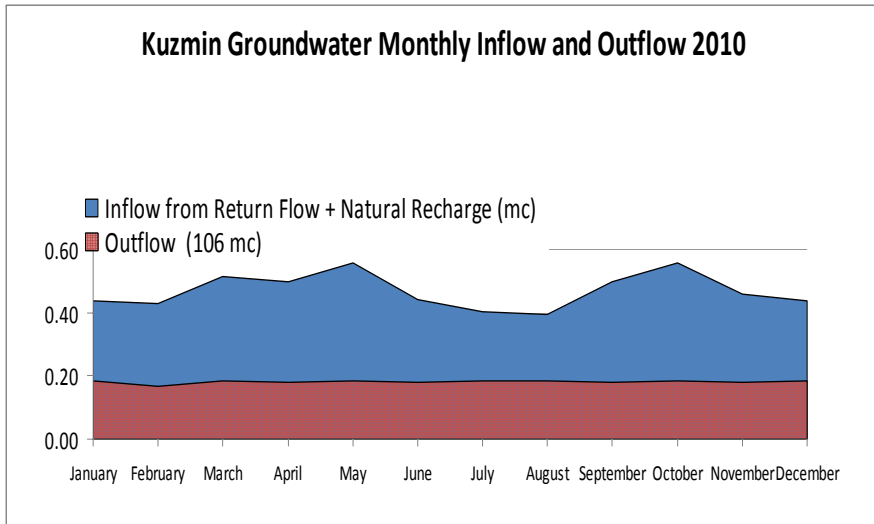
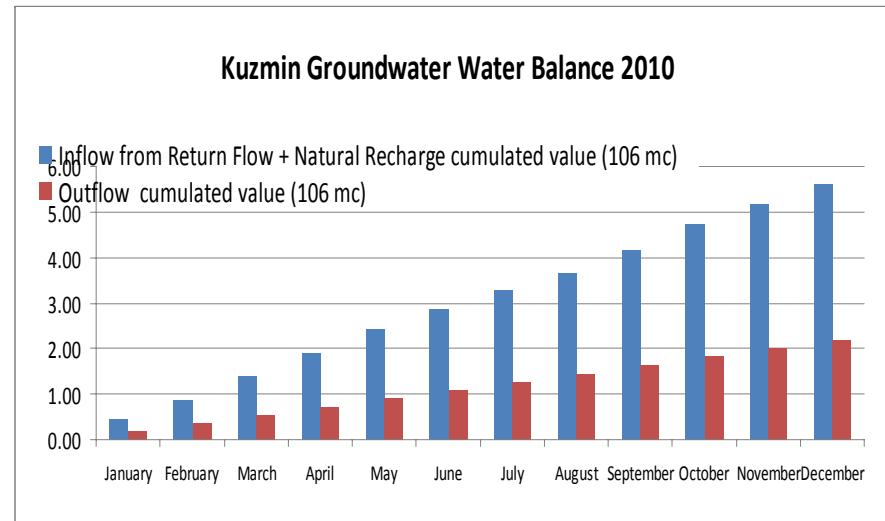


Figure 24 : Kuzmin Water Balance 2010 – cumulated values (mil mc)



Results Interpretation

- A 2010 monthly distribution of the inflow and outflow of Kuzmin underground reservoir can be seen in Figure 23. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during entire 2010 year. The graph above (Figure 24) shows clearly that the cumulated demand for Kuzmin reservoir (red column) is under the cumulated inflow normal year (blue column) which mean for the current situation 2010 that the system satisfied all its demands.

Figure 25 : Lypjan Monthly Inflow and Outflow (mil mc)

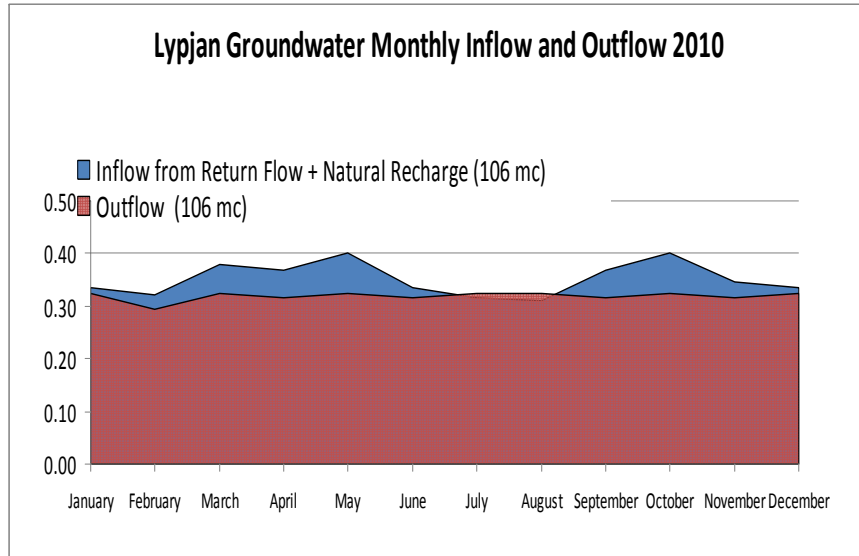
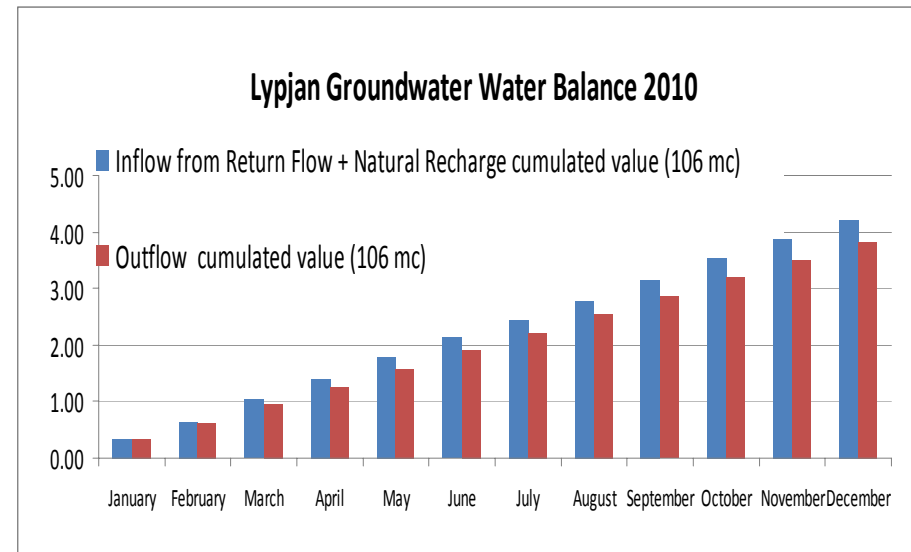


Figure 26 : Lypjan Water Balance 2010 – cumulated values (mil mc)



Results Interpretation

- A 2010 monthly distribution of the inflow and outflow of Lypjan underground reservoir can be seen in Figure 25. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during entire 2010 year, with small issues in July and August. The graph above (Figure 26) shows clearly that the cumulated demand for Lypjan reservoir (red column) is under the cumulated inflow normal year (blue column) which mean for the current situation 2010 that the system satisfy all its demands.

Figure 27 : Shtime Monthly Inflow and Outflow (mil mc)

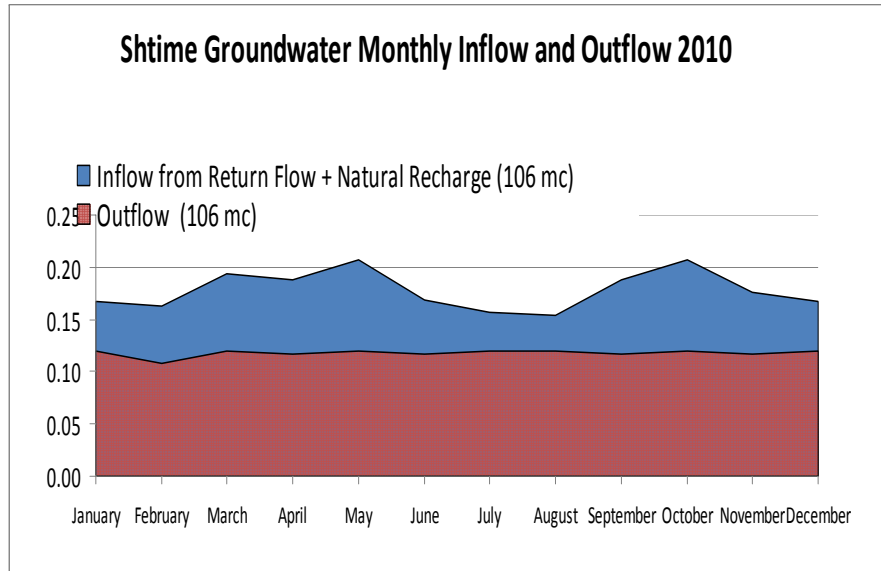
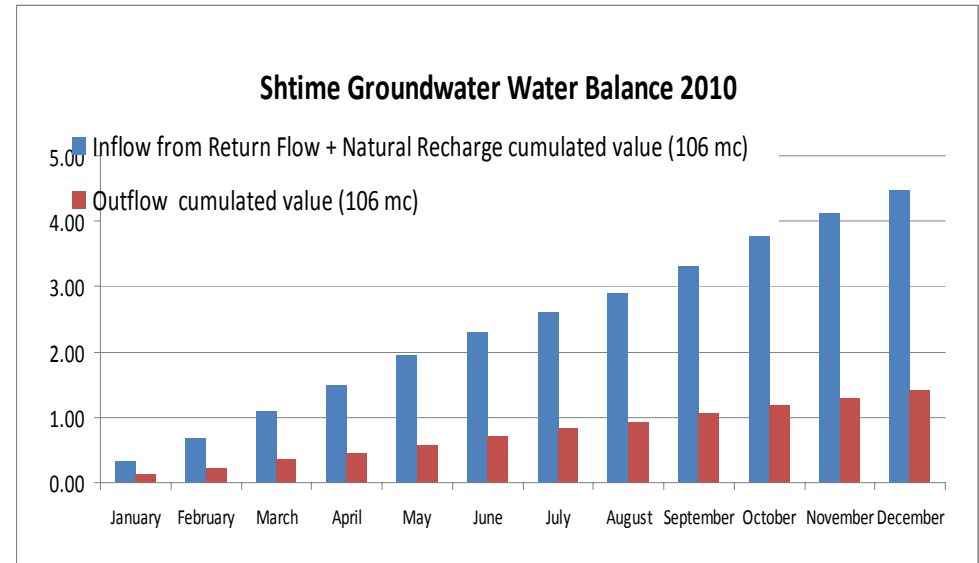


Figure 28 : Shtime Water Balance 2010 – cumulated values (mil mc)



Results Interpretation

- A 2010 monthly distribution of the inflow and outflow of Shtime underground reservoir can be seen in Figure 27. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during entire 2010 year. The graph above (Figure 28) shows clearly that the cumulated demand for Shtime reservoir (red column) is under the cumulated inflow normal year (blue column) which mean for the current situation 2010 that the system satisfy all its demands.

III.3. WEAP MODEL SCENARIOS DEVELOPMENT

A. PRESENTATION OF SCENARIO DEVELOPMENT

This mission succeeded in the development of a functioning WEAP application. The activities performed include creation of the schematic representation, incorporation of domestic, agricultural and industrial water use demands, and climatic and hydrologic parameters.

On a 25 years baseline (2010-2035 interval), the main factors of uncertainties are:

Main factors of uncertainties:

1. climate change
2. increase of population
3. percentage of connected population
4. increase of surface for irrigation
5. increase of industrial consumption.

Successive scenarios by varying these factors can be tested.

The elaboration of the various scenarios with WEAP is an iterative process, referring to:

- assumption to be made
- drivers to be changed
- indicators to be analyzed.

The scenario elaboration is a step by step process, each scenario being based on the results (indicators) of the previous one. The main parameters which could know variations in the future and then will be tested are:

1. Population Growth rate - we can assume that the population of the IBER River Basin is presently growing on a higher basis (3-4 %) due to several factors including returning population and related development of urbanization. This phenomenon is accelerated by the lack of security in rural areas.

We can consider that the recent increase of population growth rate is due to temporary factors and that after 5 to 10 years, the growth rate will be below 2% in line with Western Balkan countries.

Both rural and urban water demand will be influenced by changes in population. In order to build the 2011-2035 water demand scenarios, population data from Table 2 it was increased with a specific rate, according with the data collected from Pristina RWSC, as can be seen in Figure 26.

Figure 29 : Population growth rate

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Pristina	4%	4.0%	4.0%	4.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.0%	1.0%
Fushe Kosovo	4.0%	4.0%	4.0%	4.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.0%	1.0%
Kastriot/Obiliq	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Shtime, Lipiani, Besiane/Podujeve	2.5%	2.5%	2.5%	2.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Drenas/Gllotiv	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Mitrovica	1.30%	1.27%	1.24%	1.21%	1.18%	1.15%	1.12%	1.09%	1.06%	1.03%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

*)Source: A34-1_Water_Balance_11022011-1.xls document – Pristina RWSC

2. Irrigation Area Growth

For the same "Reference 2011-2035" interval, the future irrigated area will be equal with 8000 ha according with the data collected from IL Company, on March 2011. In that case, the growth rate for irrigation area it is assumed to be the same for each irrigated perimeter and it is detailed in Table 22.

Table 22 : Growth Rate for Irrigation

Irrigation Unit	Growth rate (%)
Komorani	24
Vushtrri	24
Shkabaj	24

The agricultural pattern will likely adjust to the markets. Land consolidation, farmers with entrepreneur spirit and know-how may enter in the legume and fruits products.

3. Evolution of the industrial water demand

The industrial water demand should be mainly impacted in a short term period by the construction of a new power plant: New Kosovo. The project is underway and it should be functioning by 2017. The expected water uses for the New Power Plant is 0.38 m³/s (2017 - 2020) and 0.76 m³/s (2021 – 2035) .

The power plant Kosovo A will be stopped when New Kosovo will be operational. Therefore, we consider the removal of its water consumption from 2017.

As mentioned in the report "Water supply from the IBER LEPENC hydro system for the proposed New Kosovo power plant – European agency for reconstruction – 2008", the IBER River Basin contains metallurgic factories and manufacturing plants that are nor working at the moment, but could restart their activity by 2016-2017. In such a case, we considered the potential water consumption evaluated at 1 m³/s.

All those industries are and would be supplied by the Gazivoda reservoir trough IBER LEPENC channel. The resulted water demand to take into account is as follows:

Table 23 : Water Consumption for Industry

Industry	Water Consumption in m ³ /s			Resource
	2015	2017	2035	
Kosovo A	0.25	0	0	IBER LEPENC channel
Kosovo B	0.4	0.4	0.4	IBER LEPENC channel
New Kosovo	0	0.38	0.76	IBER LEPENC channel
Feronikeli	0.1	0.1	0.1	IBER LEPENC channel
Metallurgic factories and Manufacturing plants	0	1	1	IBER LEPENC channel
TOTAL	0.75	3.02	3.02	IBER LEPENC channel

4. **The Climate Change** can have an impact on the storage in reservoirs and on rivers flow. Low inflow can occur more often and can be more sever and also the flood occurrence and intensity might increase.

To take the climate change into account at the scenario building stage is possible to change the "Hydrology Data" → "Water Year Method": from Normal year into a Dry / Very Dry year.

To be mentioned that the baseline scenario built and presented before was used in the scenario computation.

B. STEP BY STEP SCENARIO ANALYSIS AND RESULTS

1. Data Insertion and WEAP model scenario development

Using the baseline scenario we made the following assumptions:

- **Assumption on population**

The assumptions of population are related with the population increasing rate (see Figure 29). This can be modified in the “Key Assumptions” data view.

The consumption per capita it supposed to decrease from 150l/d in 2010 to 120l/d in 2035 (according with the data provided in March 2011 by the Director of Pristina Regional Water Company). This can be justified by the fact that the water tariff will increase, the water meters will be installed and the population will have to use the water more rationale.

This data are entry data for Scenario 1 – “Population Growth Scenario”

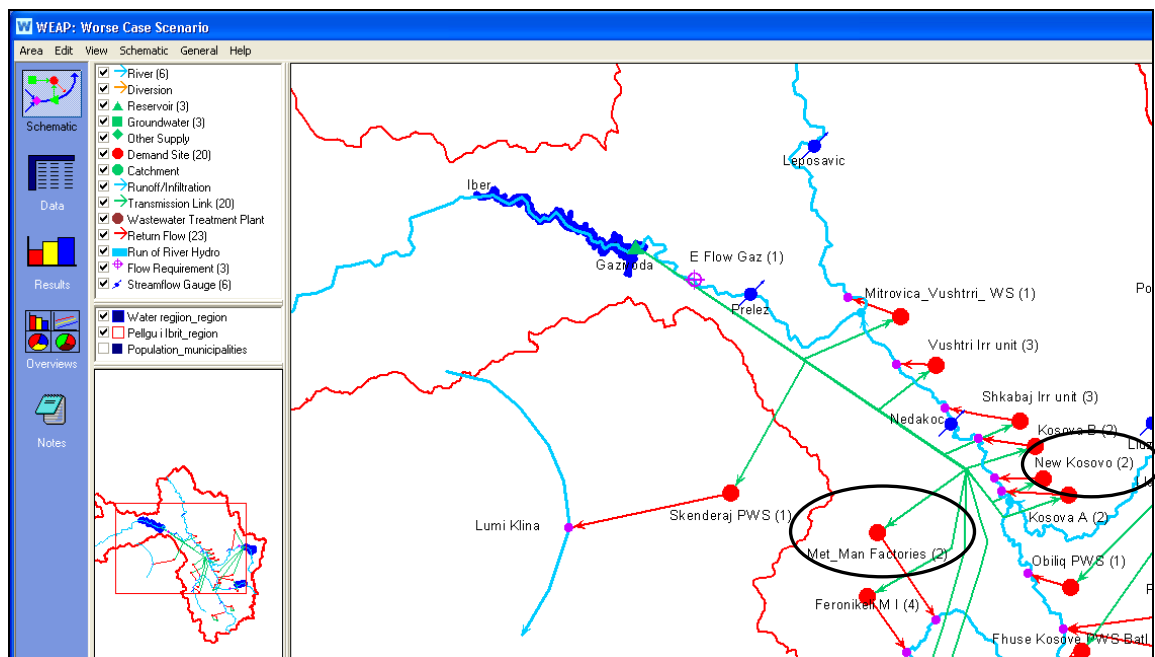
- **Increasing of the irrigated area**

The assumption on irrigation for this scenario includes a maximum growth rate for irrigation area (see Table 22), taking into consideration a future wellness of farmers, a good market and a good price for products. The irrigated area can be modified in the “Key Assumptions” data view.

- **Increasing of the industrial consumption**

At the stage of industrial consumption we considered that a **new power plant (New Kosovo)** will be built, Kosovo A power plant will be stopped and the **metallurgic factories and manufacturing plants will restart their activity** (see Table 23). These parameters can be modified and added in the “Key Assumptions” and “Demand Sites” data view.

Figure 30 : New industry in Iber River Basin



- **Climate change**

The climate change could have significant impacts in water resources in Kosovo, because of the close connections between the climate and hydrological cycle and lead to increases in precipitation, though there will be regional variations in Rainfall, then in runoff which means water available at the surface of the Iber River Basin. Overall, the global supply of freshwater will increase for responding to the increasing of population needs (consumption – recreation – farm irrigation etc.) under the climate change. Both, droughts and floods may become more frequent. Higher temperatures will also affect water quality. Possible impacts include increased eutrophication.

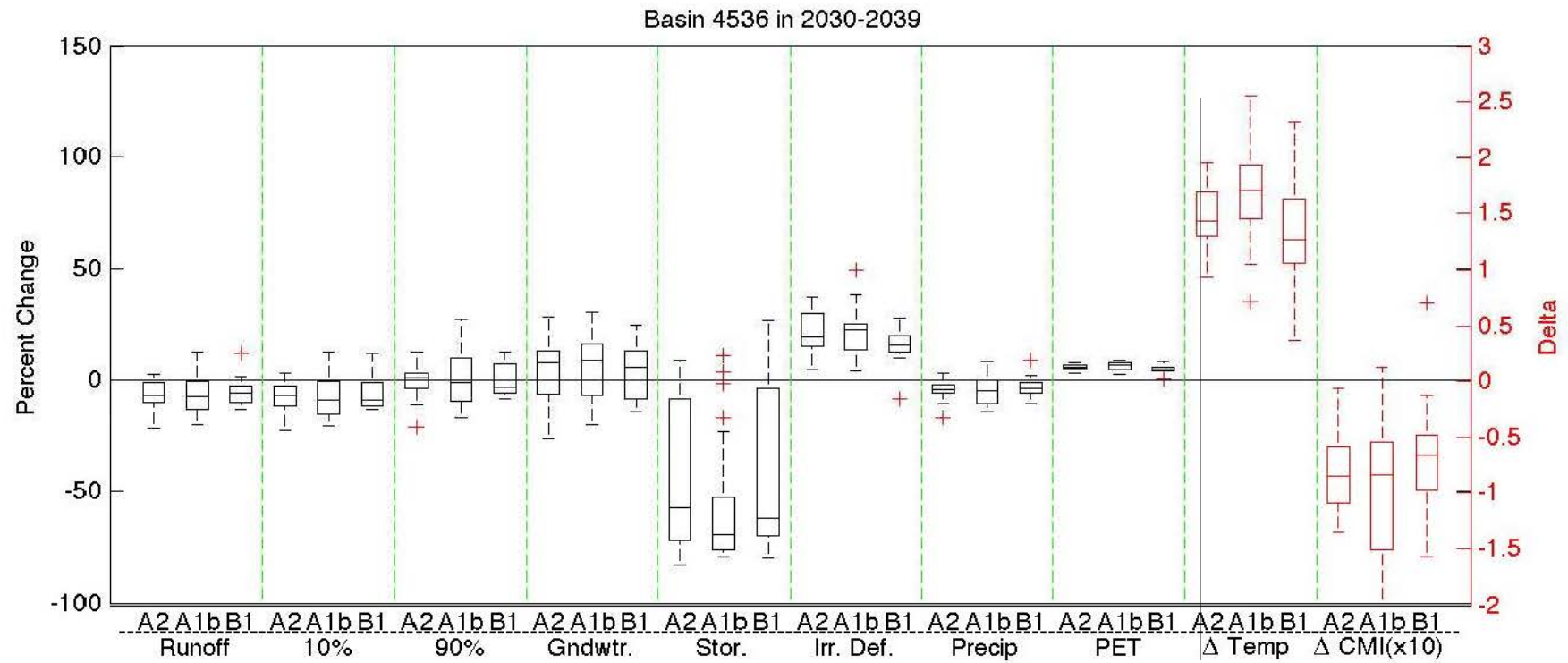
Two scenario (dry year and very dry year) will constitute the scenarios which will be implemented with WEAP, for each episode (2010 – 2020 and 2035) in order to define clearly if Iber River Basin in Kosovo could still assure its water distribution needs (population, agriculture and industry) respecting the Environmental Flow (E-flow) under the effect of climate change .

Some coefficients and values will be determinate for population consumption, evaporation coefficient, and runoff taking into accounts the effect of climate changes on behavior consumption changes and other natural processes as:

- **A normal year** which will correspond to the current data we have used until now for the study. The population consumption for a normal year (150 l/day/inhabitant) has been determinate together with the World Bank team, during our starting project meeting in the 24th of June 2010
- **A dry year, which will have a direct influence on:**
 - Population consumption for a dry year period will be fixed to 180 l/day/inhabitant (values imposed by the project team) – In fact, the population water consumption is changing under the effect of the climate change.
 - Evaporation coefficient (PET) A delta of + 0,5 on the normal year evaporation value will be imposed for a very dry year simulation (Coefficient obtained with the following graph from a previous study which have been forward us by the World Bank)
 - Inflow (or water available on the surface) – 25 % of the normal year inflow (value imposed by WEAP methodology) modified in “Hydrology – Water Year Method” data view.
- **A very dry year**
 - Population consumption – As following the same logical for a dry year period, a population consumption value will be determined by the project team. The value of this water consumption will be equal to 200 l/day/inhabitant
 - Evaporation coefficient (PET) – A delta of + 1 on the normal year evaporation value will be imposed for a very dry year simulation (Coefficient obtained with the following graph from a previous study which have been forward us by the World Bank)
 - Inflow (or water available on the surface) – 50 % of the normal year inflow (value imposed by WEAP methodology) modified in “Hydrology – Water Year Method” data view.



This data are entry data for Scenarios 4 and 5 – “Climate change Scenarios” and it has to be mentioned that the population data are different than the ones used for “Population Growth Scenario”, where the climate change effect it was not considered.



Legend

Top of Box: 75th percentile
 Bottom of Box: 25th percentile
 Whiskers: extreme values

Middle Line: median
 Red Crosshairs: model outliers

2. Scenario Results presentation and interpretation

A. Scenario 1 - Population growth scenario

a) System 1 – Gazivoda dam

- For 2020

Figure 31 : Gazivoda Monthly Inflow and Outflow – Scenario 1 – 2020

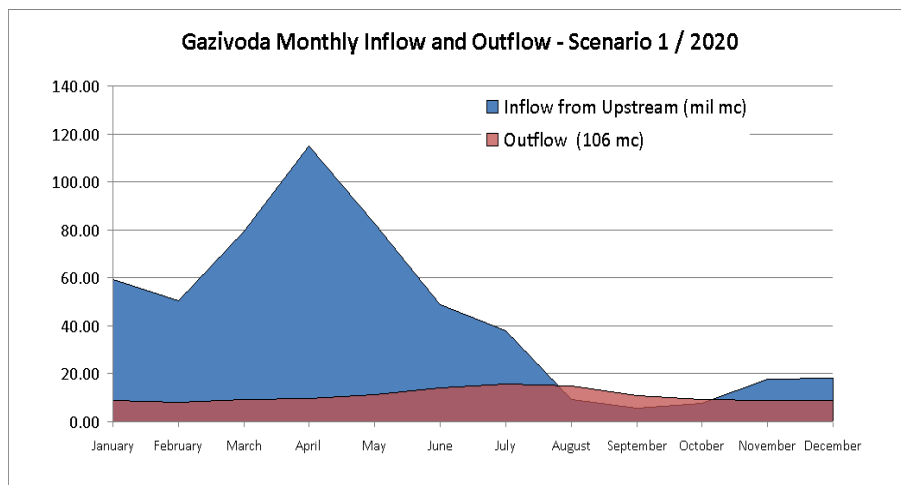
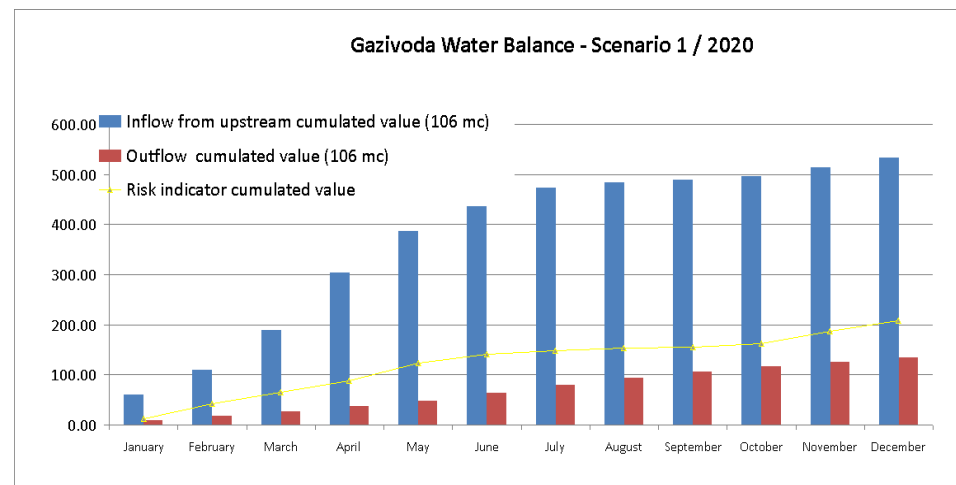


Figure 32 : Gazivoda Water Balance – Scenario 1 – 2020



Results Interpretation

- A 2020 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 31. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring season, but we can have problems in August and September. The graph above (Figure 32) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which means that for the 2020 situation, the system 1 satisfied all its demands.

- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 1; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.

- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that even in a worst case situation (very dry year), the demand will be however satisfied taking into account also the effect of climate change on water consumption increasing.

- For 2035

Figure 33 : Gazivoda Monthly Inflow and Outflow – Scenario 1 – 2035

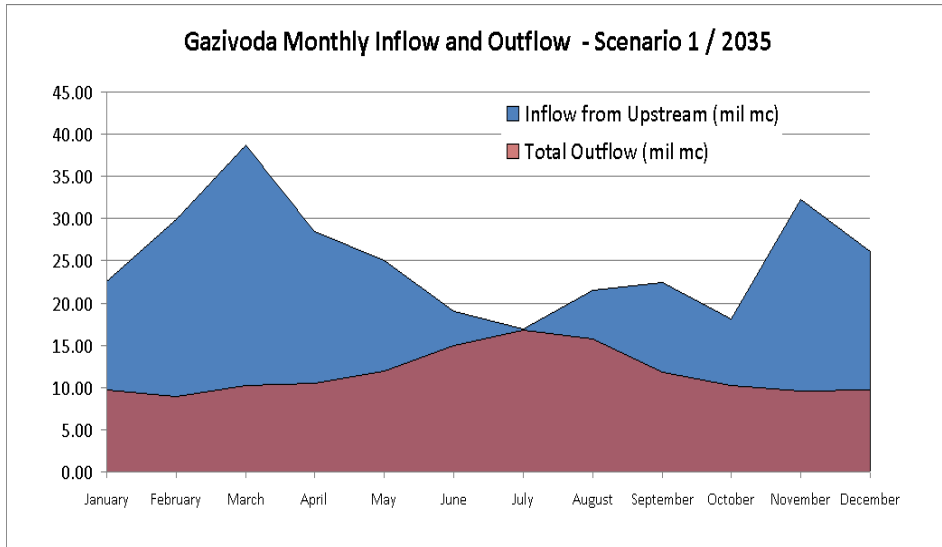
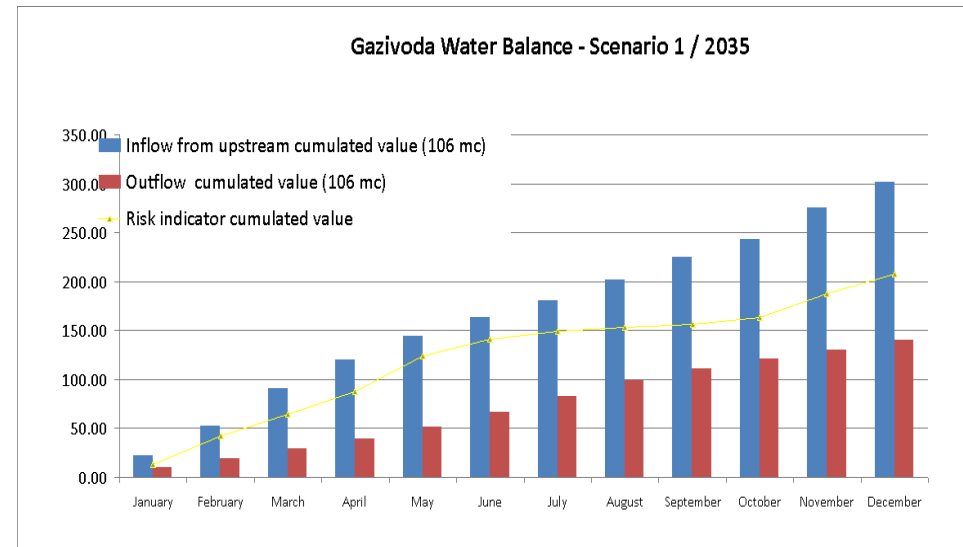


Figure 34 : Gazivoda Water Balance – Scenario 1 – 2035



Results Interpretation

- A 2035 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 33. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring and winter seasons, but we can have problems in July. The graph above (Figure 34) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which means that for the 2035 situation, the system 1 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not required to think about potential measure for assuring water security.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that even in a worst case situation (very dry year), the demand will be however satisfied taking into account also the effect of climate change on water consumption increasing.

- General impact of population growth on water demand

Table 24 : Results for System 1 (population growth rate)

	2010	2020	2035
Inflow (in mil mc)	415.09	532.14	301.12
Outflow (Water demand in mil mc)	130.09	134.59	140.20

The impact of population growth on water demand for system 1 is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 10 mil mc, which means an increasing rate of 7.7 % (see Table 24).

Figure 36 : Population Growth Impact for System 1 Water Demand

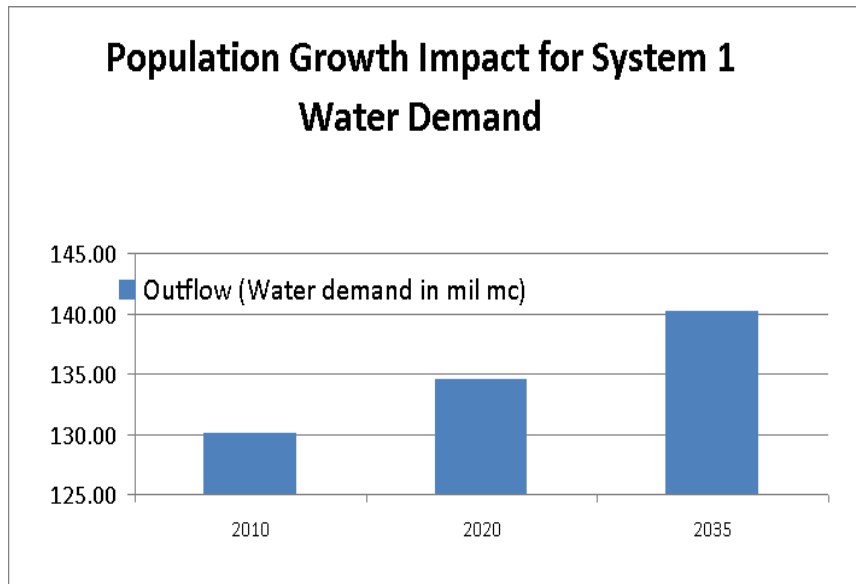
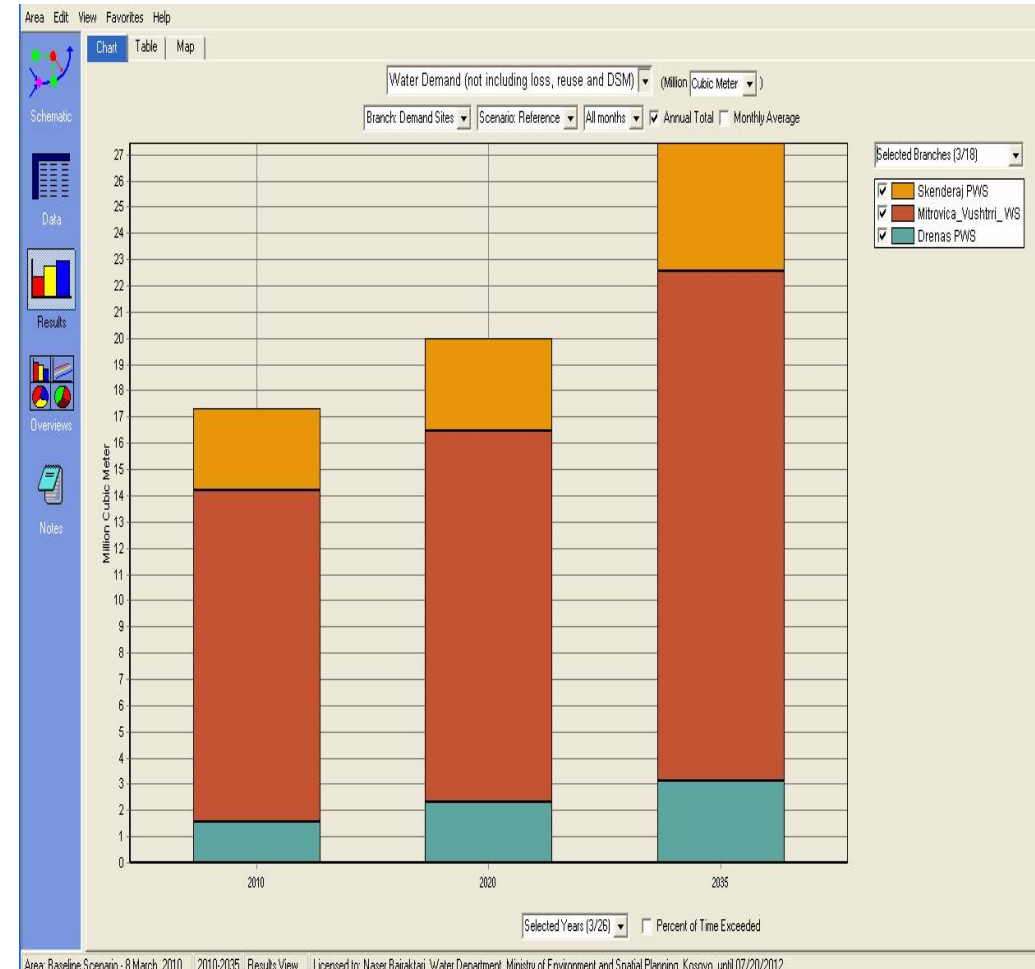


Figure 35 : 2010, 2020 and 2035 WEAP Water Demand for Drinking Water in System 1



b) System 2 – Batlava & Badovc dams

- For 2020

Figure 37 : Batlava Monthly Inflow and Outflow – Scenario 1 – 2020

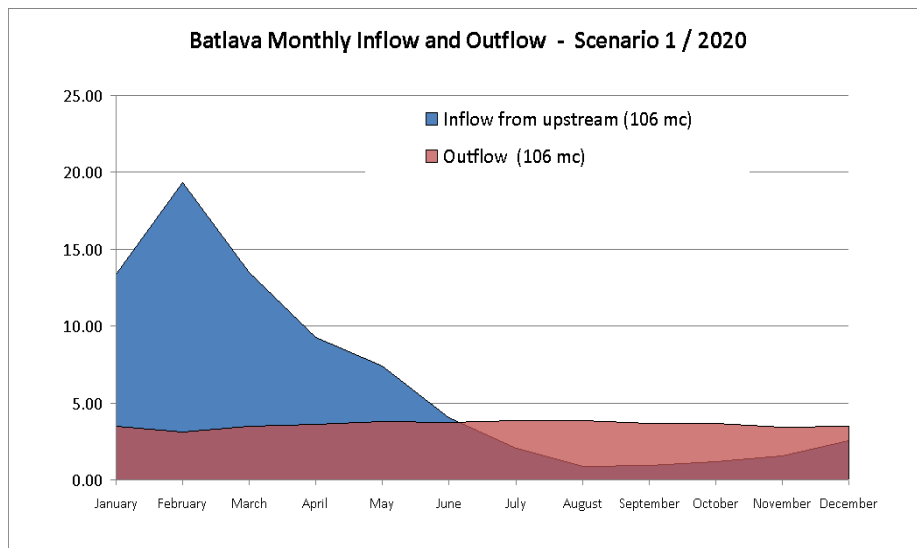
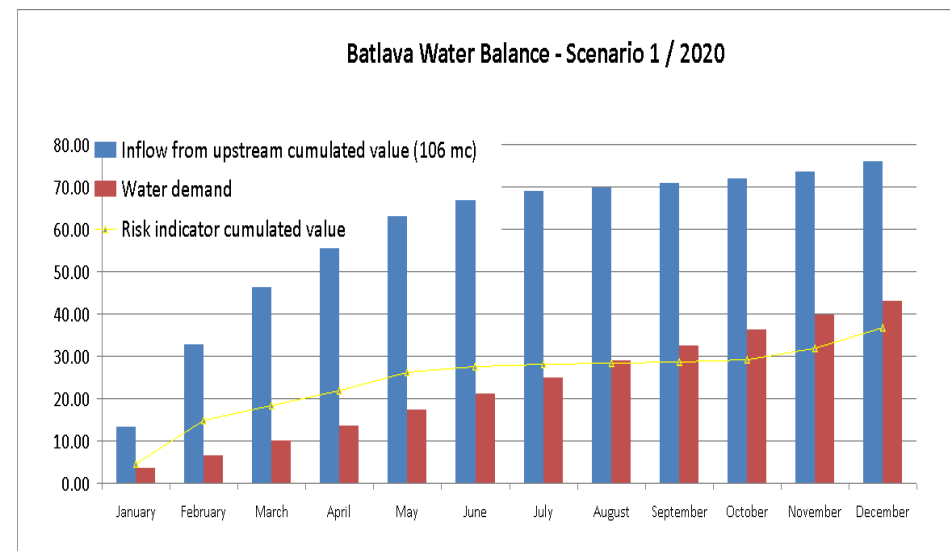


Figure 38 : Batlava Water Balance – Scenario 1 – 2020



Results Interpretation:

- A 2020 monthly distribution of the inflow and outflow of Batlava reservoir can be seen in Figure 37. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during spring season, but in the rest of the year we can have a deficit of water, especially in August and September. These results don't take into consideration the water cumulative effect of the reservoir. In fact, the graph above (Figure 38) shows clearly that the cumulated demand for Batlava dam (red column) is under the cumulated inflow normal year (blue column) which means that for 2020 situation, the system 2 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 2; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that in a worst case situation (very dry year), the demand will not be satisfied taking into account the effect of climate change on water consumption increasing.

Figure 39 : Badovc Monthly Inflow and Outflow – Scenario 1 – 2020

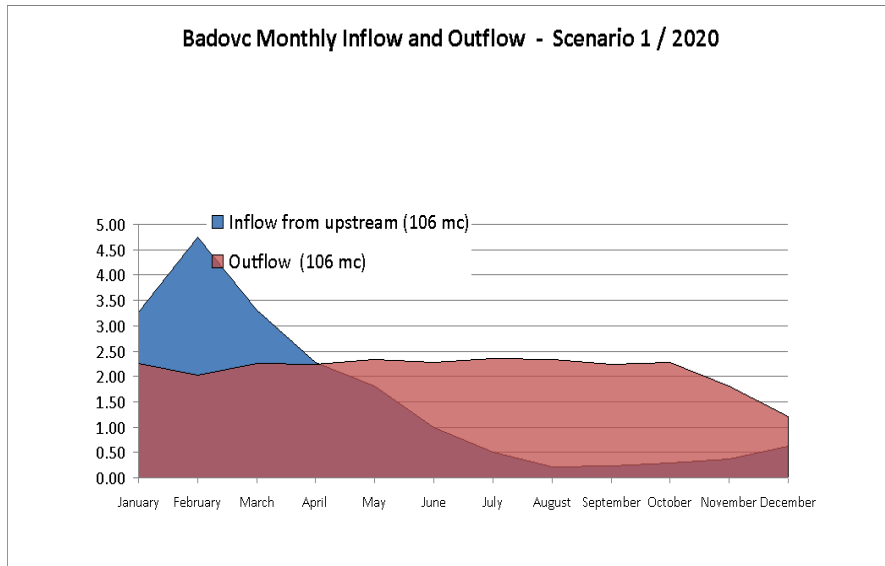
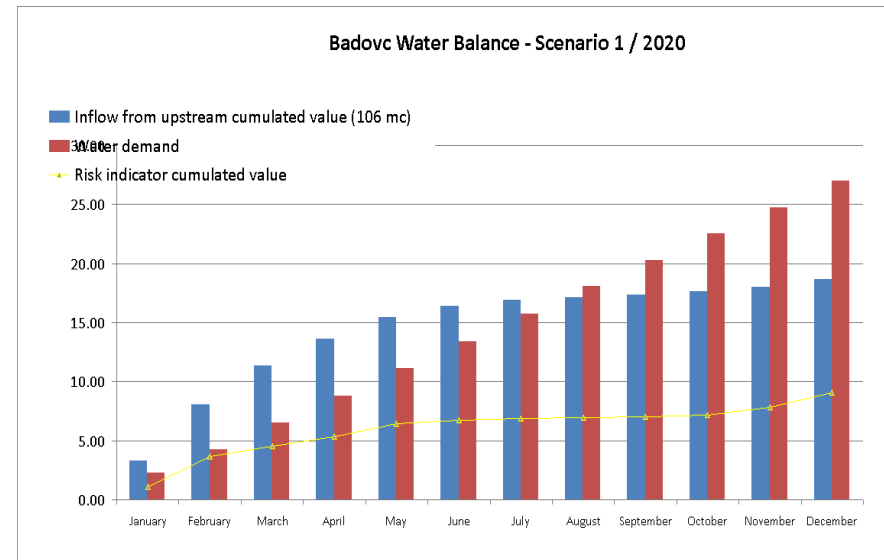


Figure 40 : Badovc Water Balance – Scenario 1 – 2020



Results Interpretation:

- A 2020 monthly distribution of the inflow and outflow of Badovc reservoir can be seen in Figure 39. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system during spring season, but we have a deficit of water from June to December. The graph above (Figure 40) shows clearly that the cumulated demand for Badovc dam (red column) is above the cumulated inflow normal year (blue column) which means that for 2020 situation, the system 2 does not satisfy all its demands.
- The comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that in a worst case situation regarding climate change (very dry year), the red column being above the yellow line, the system 2 will be in a critical situation. **In consequence, to avoid the hydraulic stress, some measures have to be developed (leakage reduction, dam, new sources of water, reduction of illegal connection, etc) to then allows water security demands in this whole system, for any climate situation (normal, dry and very dry).**

- For 2035

Figure 41 : Badovc Water Balance – Scenario 1 – 2035

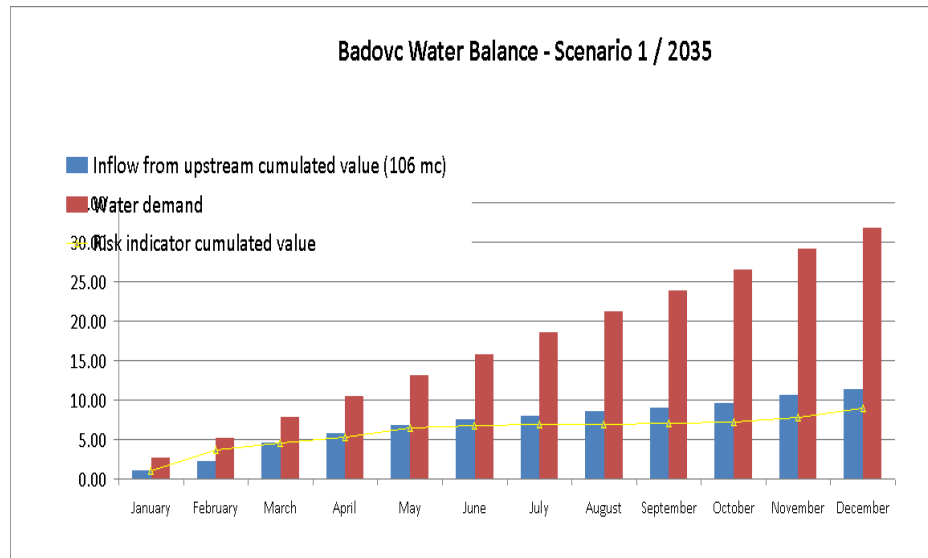
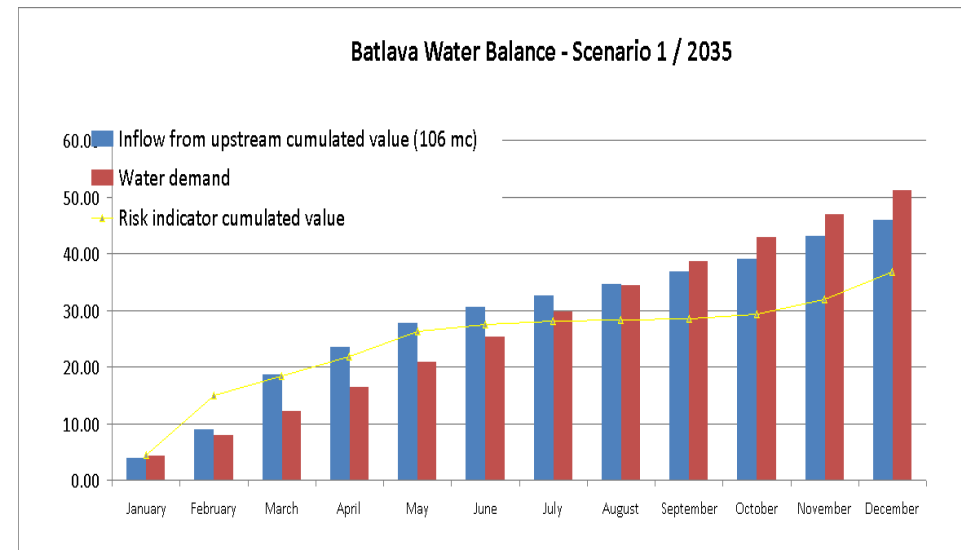


Figure 42 : Batllava Water Balance – Scenario 1 – 2035



Results Interpretation:

- A 2035 monthly distribution of the cumulated values of inflows and outflows of Badovc and Batllava reservoirs can be seen in Figure 41 and Figure 42, where can be seen clearly that the cumulated demand for the both dams (red column) is above the cumulated inflow normal year (blue column) which means that for 2035 situation, the system 2 does not satisfy all its demands.
- Measures have to be developed (leakage reduction, dam, new sources of water, reduction of illegal connection, etc) to allows water security demands in the system, for any climate situation (normal, dry and very dry).

- General impact of population growth on water demand

Table 25 : Results for System 2

	2010	2020	2035
Inflow (in mil mc)	91.73	94.58	57.12
Outflow (Water demand in mil mc)	67.01	70.05	82.89

The impact of population growth on water demand for System 2 (Batllava + Badovc) is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 15.9 mil mc, which means an increasing rate of 23.7% (see Table 25).

Figure 44 : Population Growth Impact for System 2 Water Demand

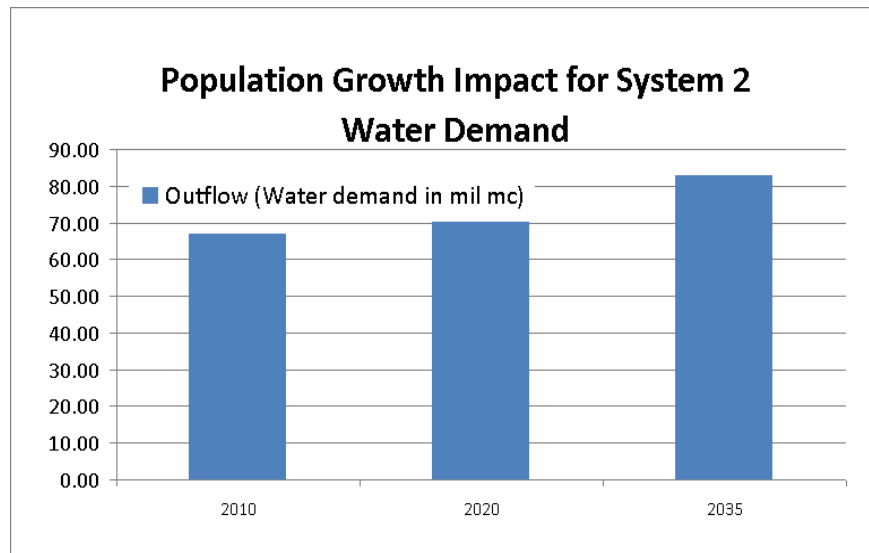
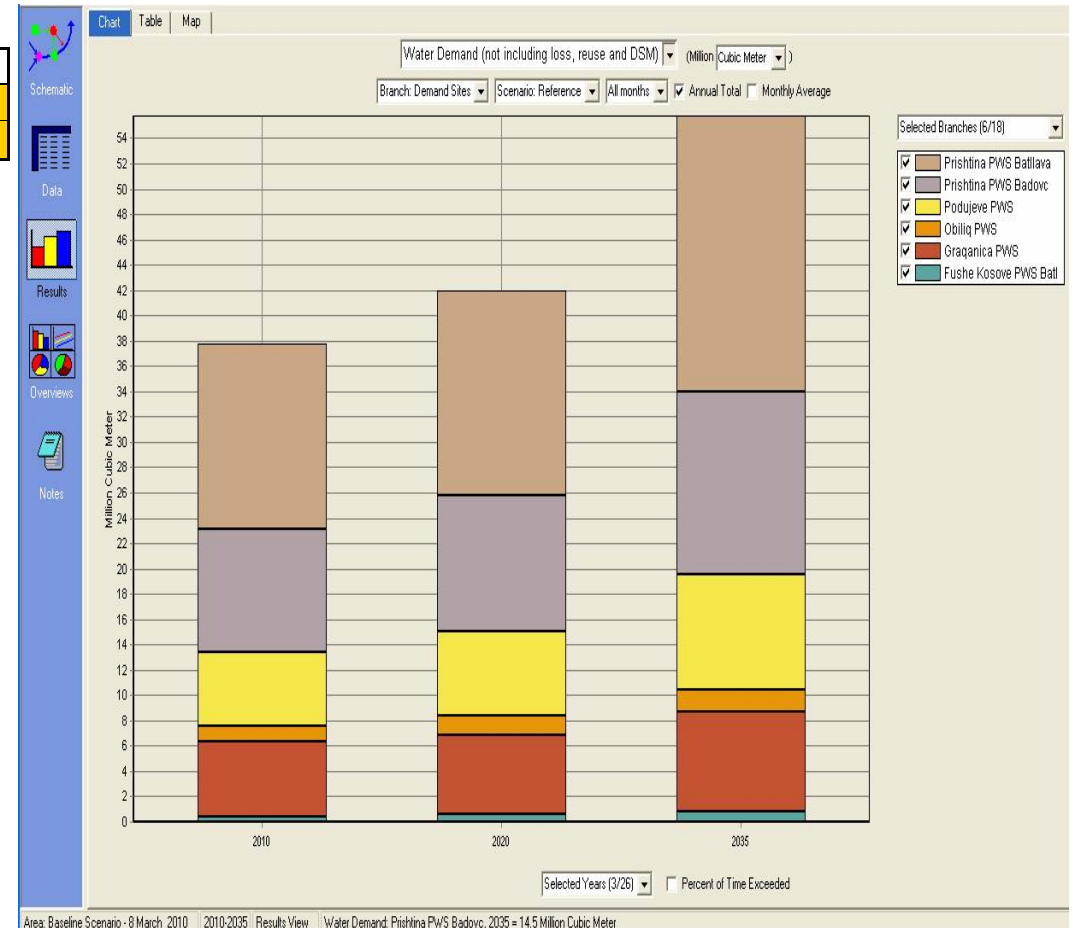


Figure 43 : WEAP Water Demand for Drinking Water in System 2



c) System 3 – Groundwaters System

- General impact of population growth on water demand

Table 26 : Results for System 3

	2010	2020	2035
Inflow (in mil mc)	11.98	12.85	13.89
Outflow (Water demand in mil mc)	7.44	9.07	10.34

The impact of population growth on water demand for System 3 (Groundwater) is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 2.9 mil mc, which means an increasing rate of 39 % (see Table 26).

Figure 46 : Population Growth Impact for System 3 Water Demand

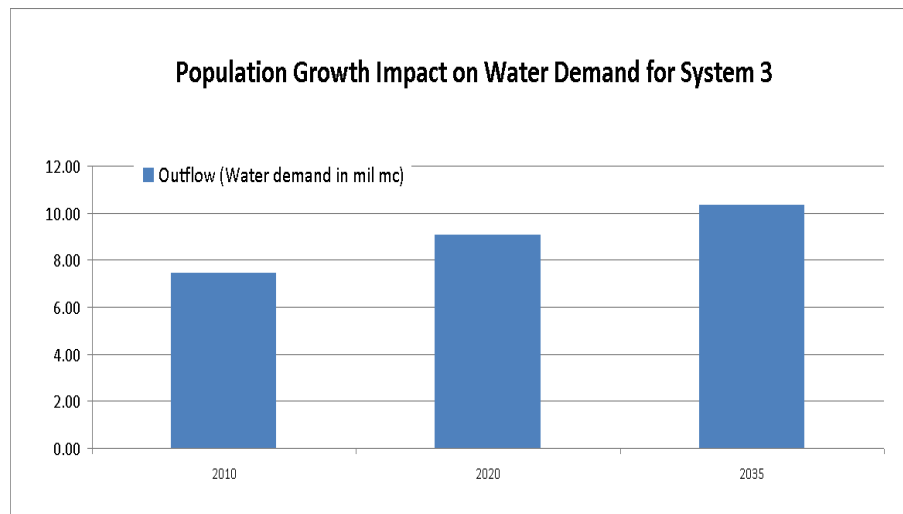


Figure 45 : WEAP Water Demand for Drinking Water in System 3



B. Scenario 2: Population growth + agriculture growth scenario (only for System1 – Gazivoda system)

- For 2020

Figure 47 : Gazivoda Monthly Inflow and Outflow – Scenario 2 – 2020

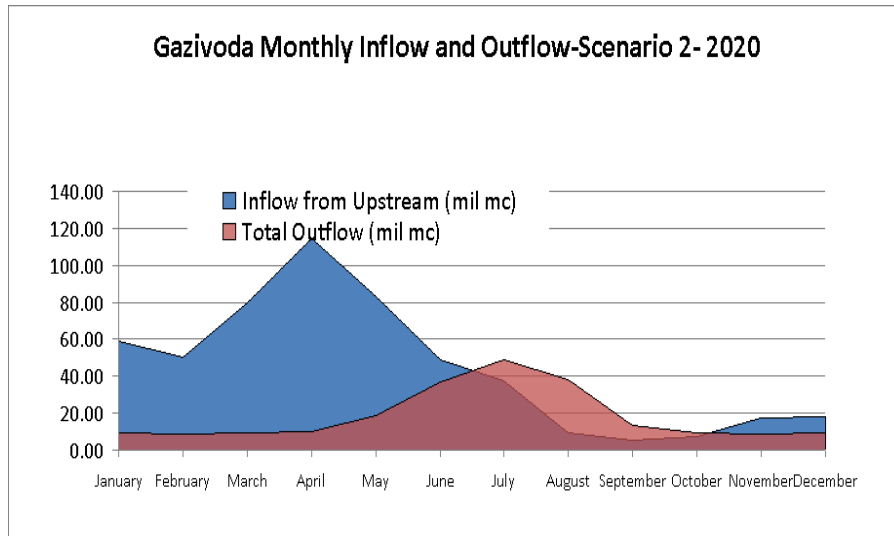
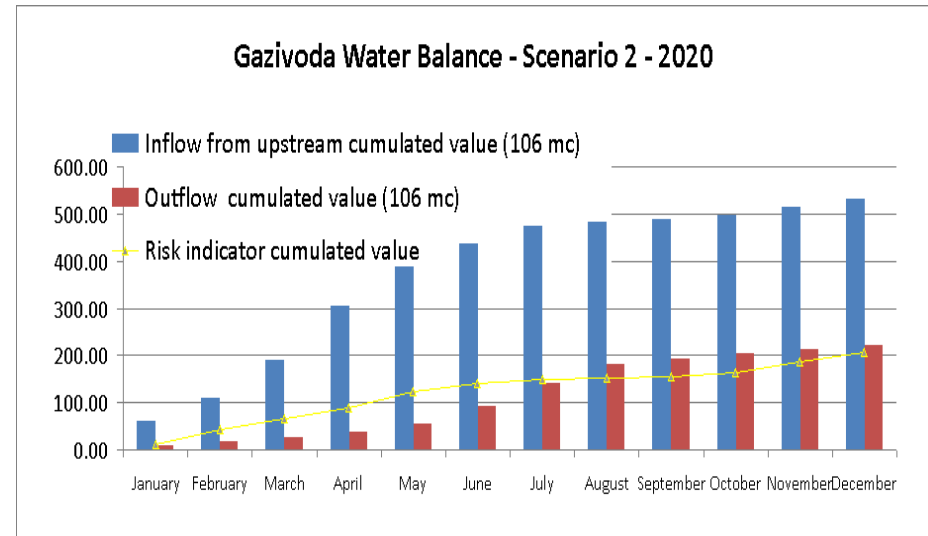


Figure 48 : Gazivoda Water Balance – Scenario 2 – 2020



Results interpretation:

- A 2020 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 47. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring season, but we can have problems in the summer period. The graph above (Figure 48) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which means that for the 2020 situation, the system 1 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 1; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that even in a worst case situation (very dry year), the demand will be however satisfied taking into account also the effect of climate change on water consumption increasing.

- For 2035

Figure 49 : Gazivoda Monthly Inflow and Outflow – Scenario 2 – 2035

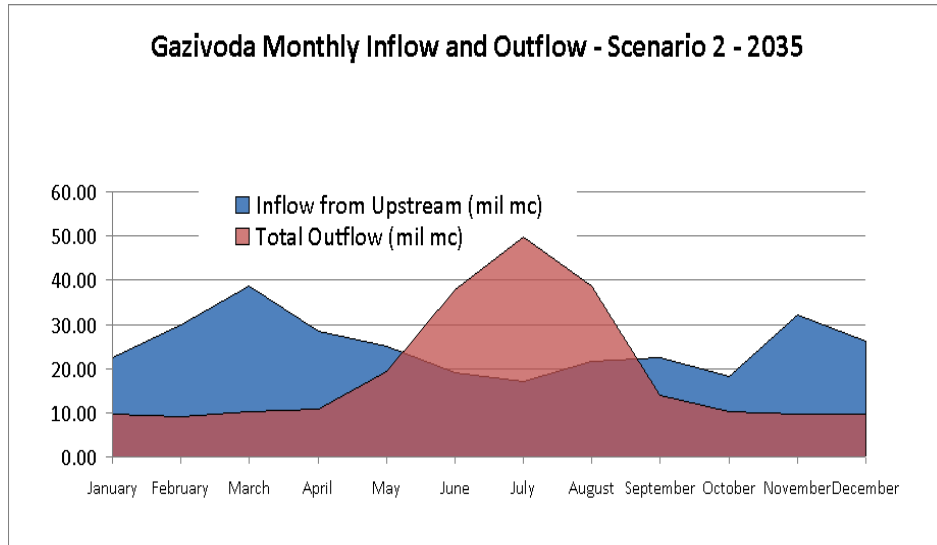
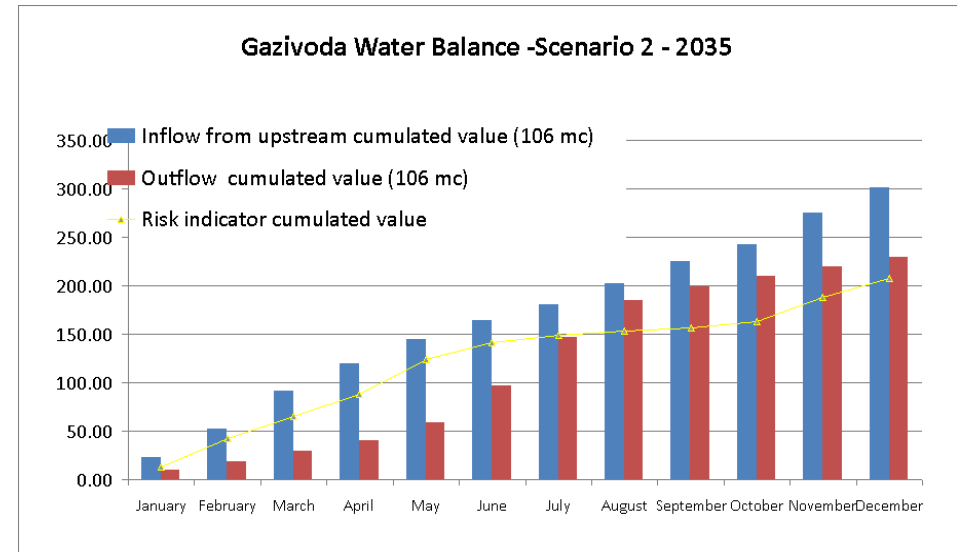


Figure 50 : Gazivoda Water Balance – Scenario 2– 2035



Results interpretation:

- A 2035 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 49. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring and winter seasons, but we can have problems from May to September. The graph above (Figure 50) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which means that for the 2035 situation, the system 1 satisfied all its demands.
- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not required to think about potential measure for assuring water security.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to say that in a worst case situation (very dry year), the demand will not be satisfied taking into account the effect of climate change on water consumption increasing.

- General impact of population and agriculture growth on water demand

Table 27 : Results for System 1 (population growth + agriculture growth)

	2010	2020	2035
Inflow (in mil mc)	415.09	532.14	301.12
Outflow (Water demand in mil mc)	130.09	220.91	228.83

The impact of population + irrigated area growth on water demand for system 1 is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 99 mil mc, which means an increasing rate of 76 % (see Table 27).

Figure 52 : Population +Agriculture Growth Impact for System 1 Water Demand

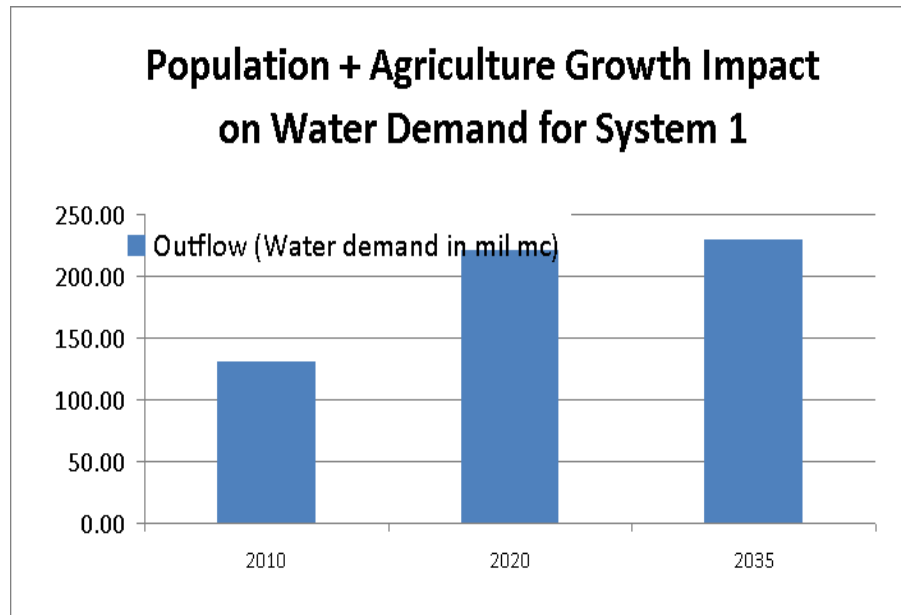
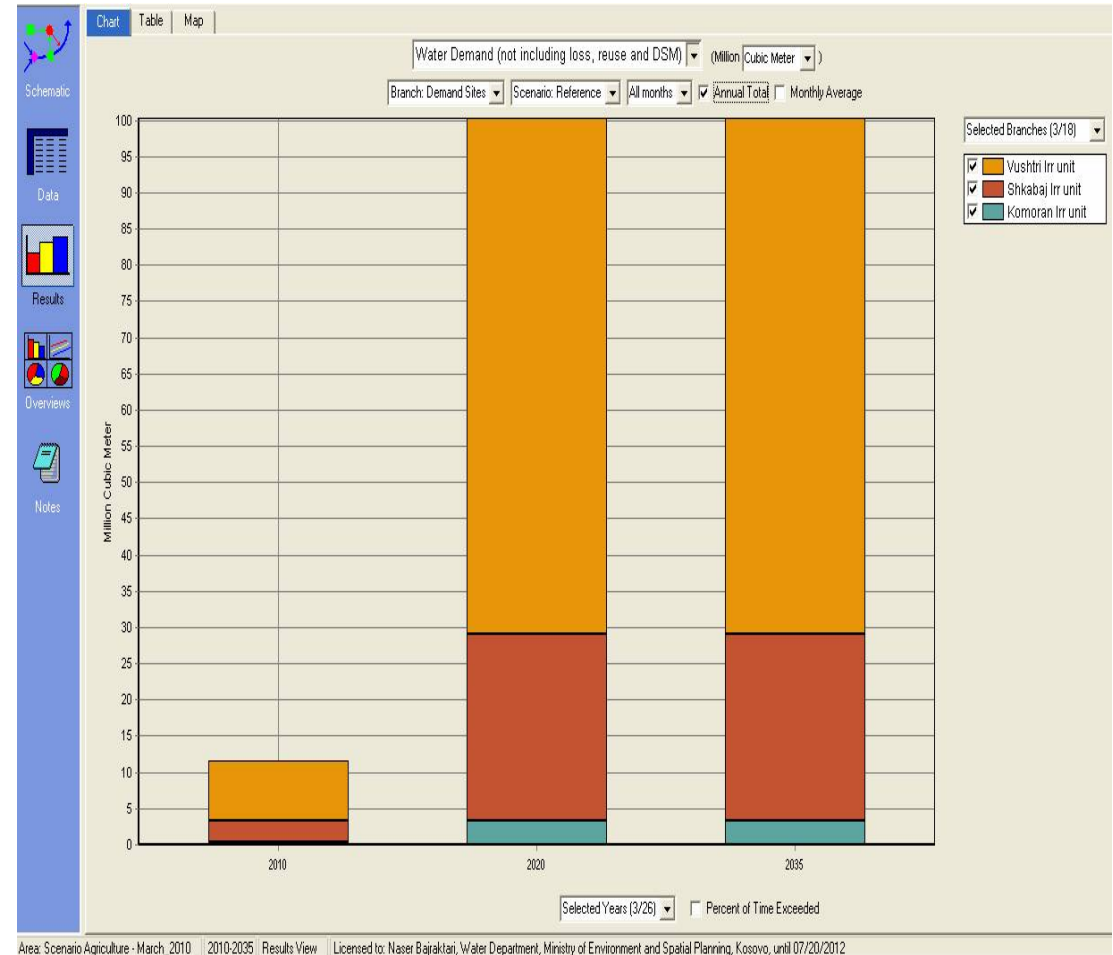


Figure 51 : WEAP Water Demand for Irrigation in System 1



C. Scenario 3: Population growth + agriculture growth + increasing of industry activities (Only for Gazivoda system)

- For 2020

Figure 53 : Gazivoda Monthly Inflow and Outflow – Scenario 3– 2020

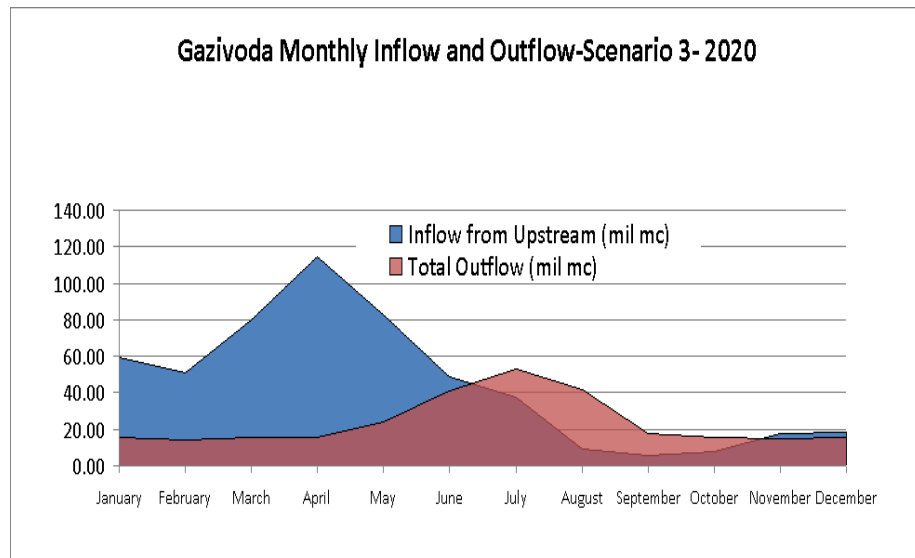
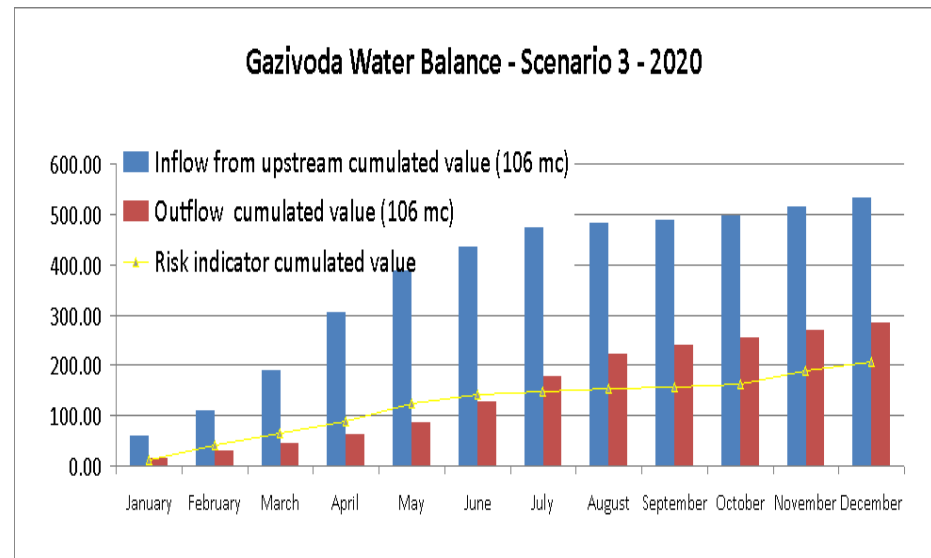


Figure 54 : Gazivoda Water Balance – Scenario 3– 2020



Results interpretation:

- A 2020 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 53. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring season, but we can have problems in in the rest of the year. The graph above (Figure 54) shows clearly that the cumulated demand for Gazivoda dam (red column) is under the cumulated inflow normal year (blue column) which means that for the 2020 situation, the system 1 satisfied all its demands.

- The comparison of the cumulated inflow normal year (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 1; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.

- For 2035

Figure 55 : Gazivoda Monthly Inflow and Outflow – Scenario 3– 2035

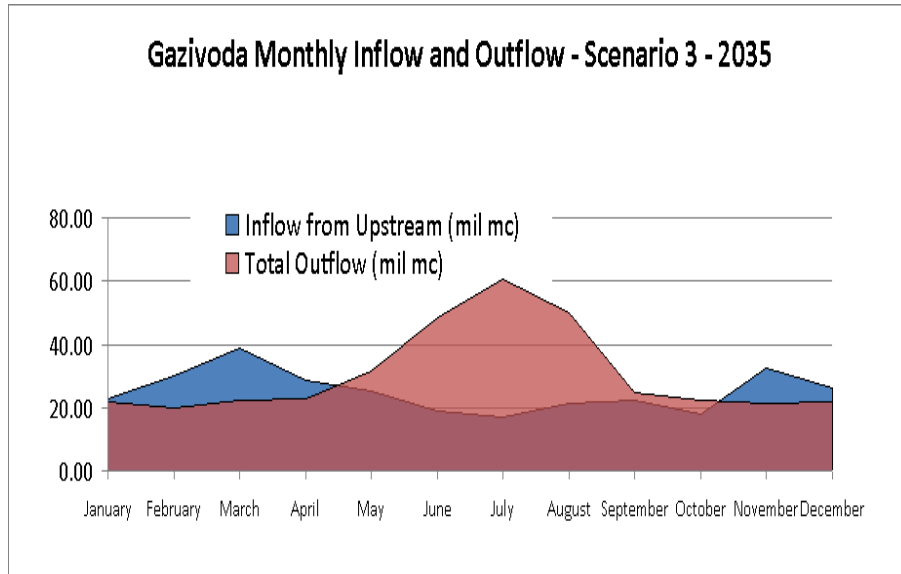
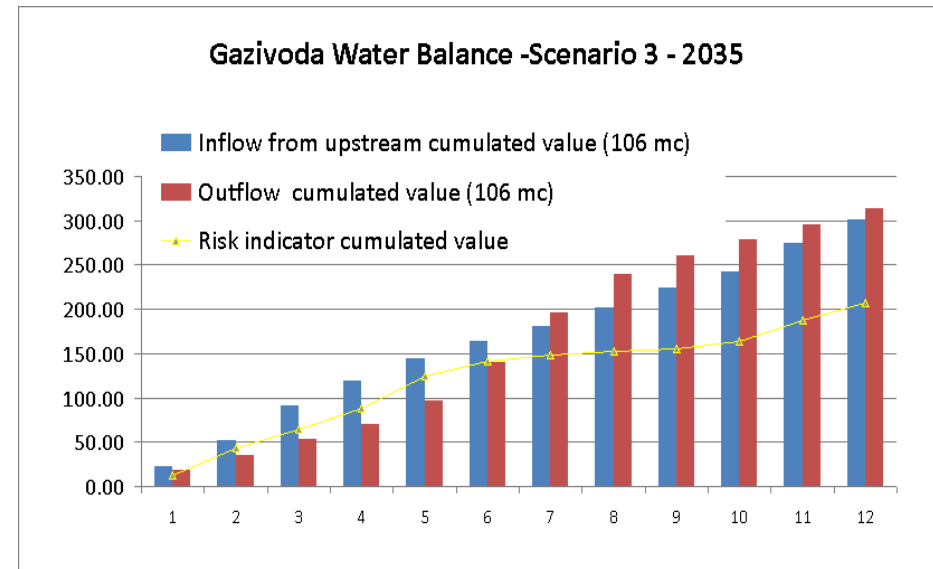


Figure 56 : Gazivoda Water Balance – Scenario 3– 2035



Results interpretation:

- A 2035 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 55. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially during spring and winter seasons, but we can have problems from May to October. The graph above (Figure 56) shows clearly that the cumulated demand for Gazivoda dam (red column) is above the cumulated inflow normal year (blue column) which means that for the 2035 situation, the system 1 does not satisfy all its demands.

- General impact of population, agriculture and industry growth on water demand

Table 28 : Results for System 1 (population growth + agriculture growth + industry growth)

	2010	2020	2035
Inflow (in mil mc)	415.09	532.14	301.12
Outflow (Water demand in mil mc)	130.09	284.84	314.09

The impact of population, irrigation and industry growth on water demand for system 1 is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 184 mil mc, which means an increasing rate of 141 % (see Table 28).

Figure 58 : Population +Agriculture + Industry Growth Impact for System 1 Water Demand

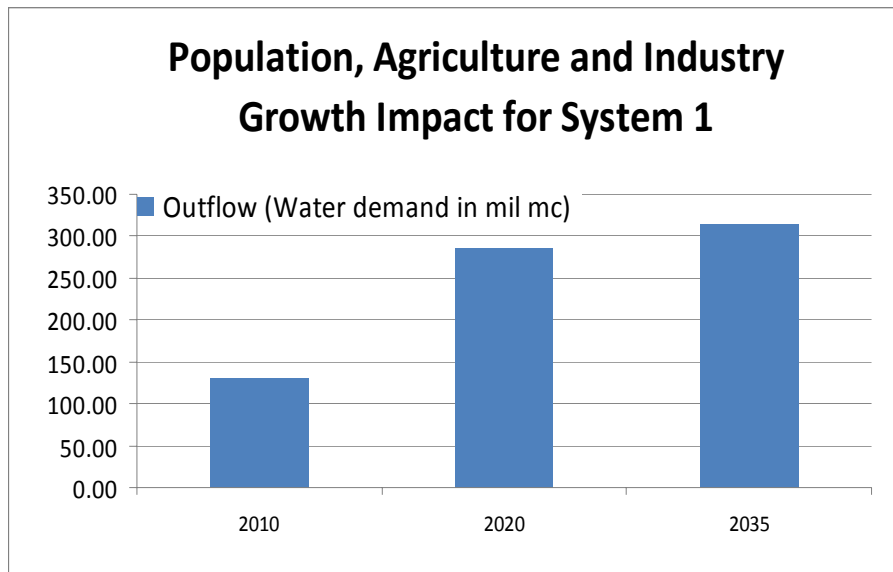
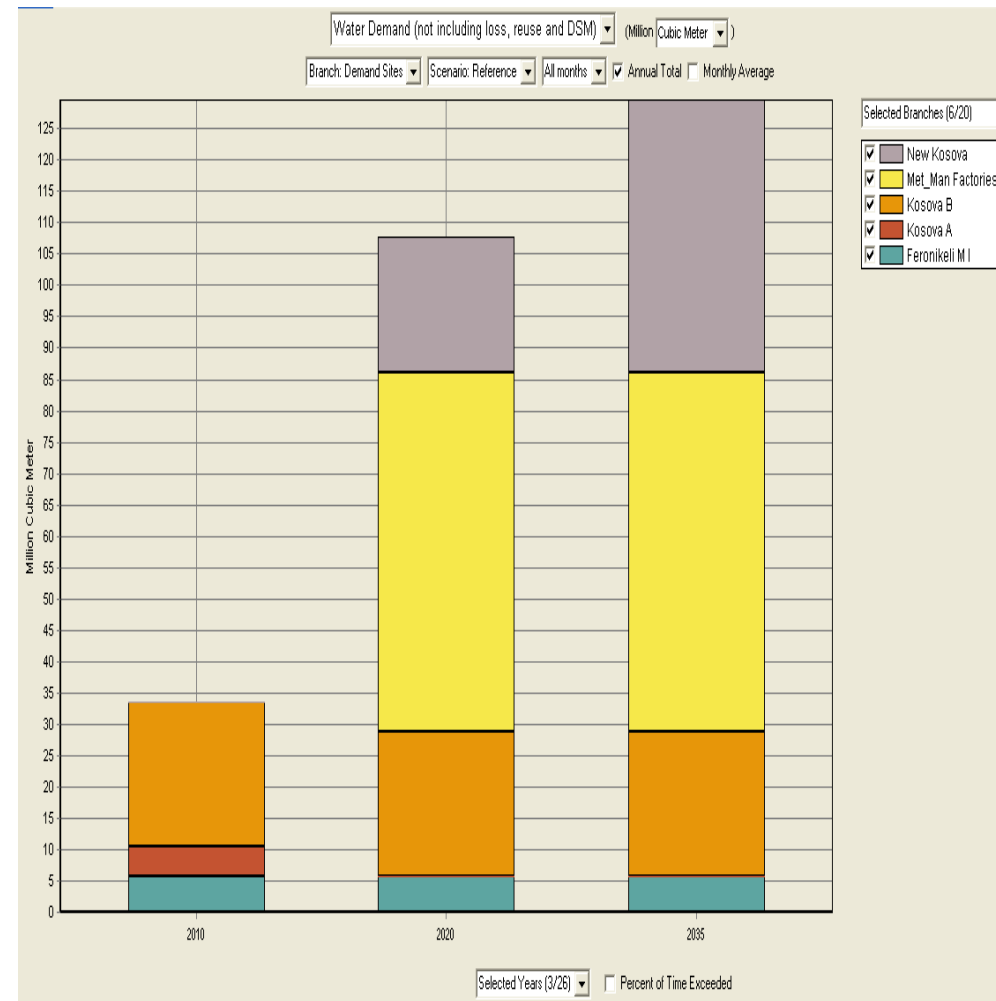


Figure 57 : WEAP Water Demand for Industry in System 1



D. Scenario 4: Population growth + agriculture growth + increasing of industry activities + climate change effect

1. *Climate change effect for a Dry year period*

a) System 1 – Gazivoda dam

- For 2020

Figure 59 : Gazivoda Monthly Inflow and Outflow – Scenario 4– 2020

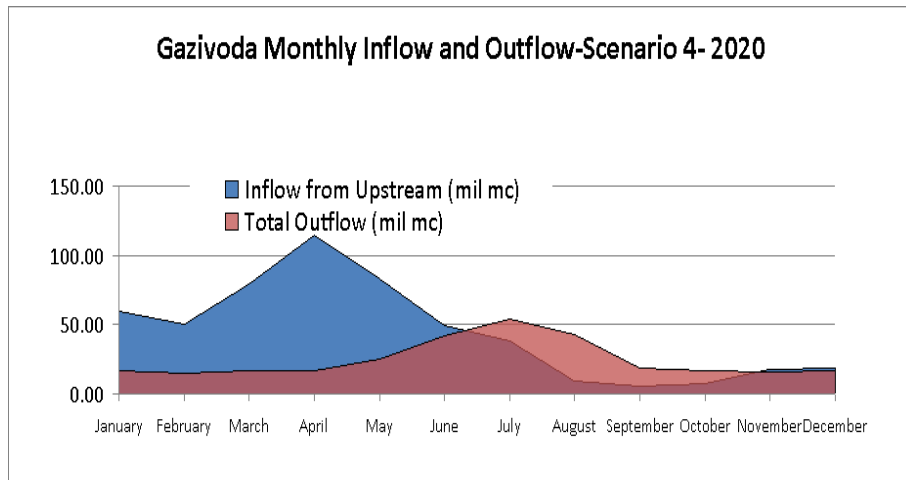
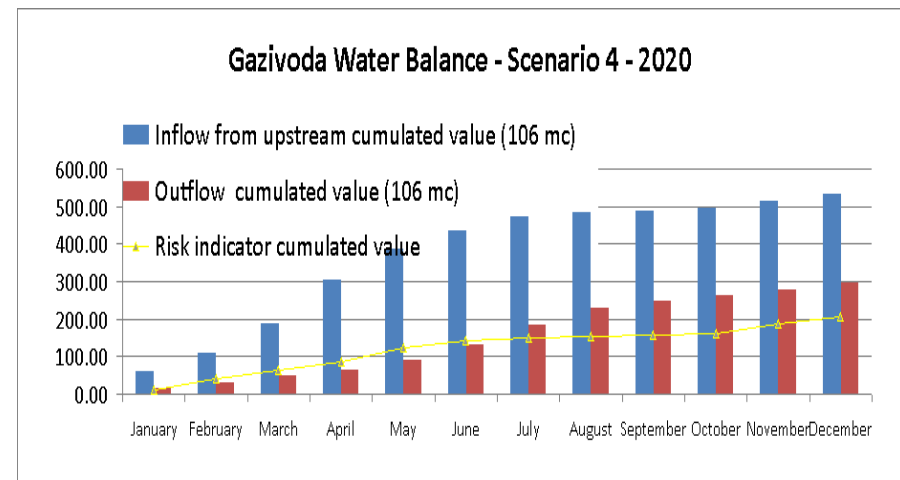


Figure 60 : Gazivoda Water Balance – Scenario 4– 2020



Results Interpretation:

- A 2020 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 59. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system especially between January to June before the irrigation season (Julyt to October), where the demand is higher at the inflow in this system and at this period. However, this higher demand can be satisfied by the cumulated effect of water in the system as show the above graph (Figure 60). In fact the Gazivoda system could cumulate inflow water (blue column) in order to satisfied the corresponding system demand (red column) in 2020, and for some specific conditions during all the year cumulated demand (red column) will stay all long down the cumulated inflow (blue column) for all the year.
- The comparison of the cumulated inflow (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in order to assure Water Security for system 1; in fact more close the blue column will be to the yellow line, it will be required to think about potential measure for assuring water security, before the blue column is going under this critical yellow line.
- Finally, the comparison of the water demand or outflow (red column) and the cumulated inflow for a very dry season (yellow line), allows us to confirm that even in a worst case situation (very dry year), the demand will not be satisfied.

- For 2035

Figure 61 : Gazivoda Monthly Inflow and Outflow – Scenario 4– 2035

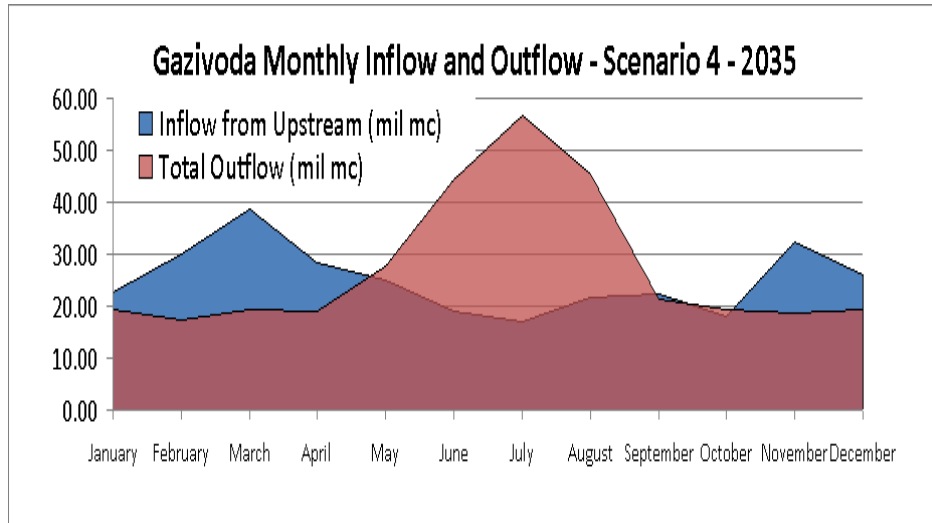
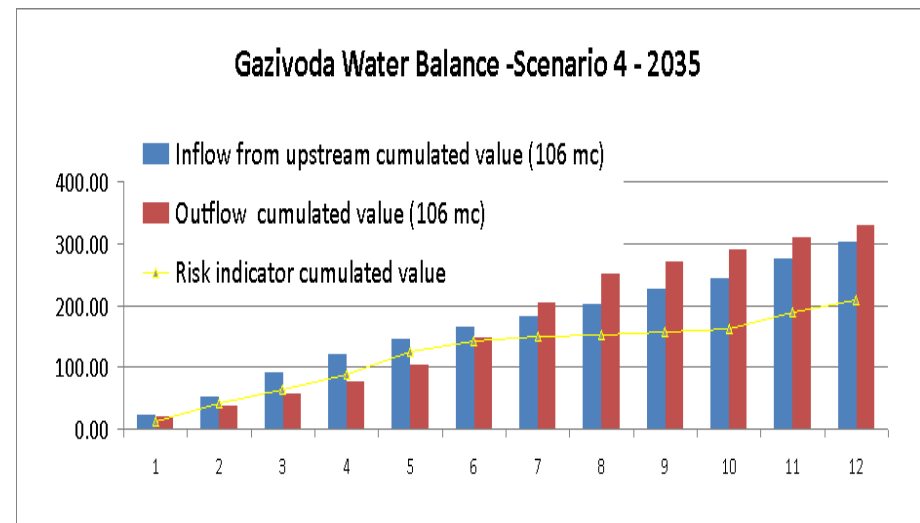


Figure 62 : Gazivoda Water Balance – Scenario 4– 2035



Results interpretation:

- A 2035 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 61. The figure 62 represents the water balance of the system (inflow / demand) in cumulated values. We notice that the water demand from May to September is upper at the inflow available in the system and that the water cumulated function of the Gazivoda dam is not enough for satisfied the demand. For this situation, some measure has to be implemented in order to assure water security for the Gazivoda system. This conclusion is also clearly demonstrated by the comparison of the cumulated water demand or outflow (red column) and the cumulated inflow for the very dry year (yellow line).

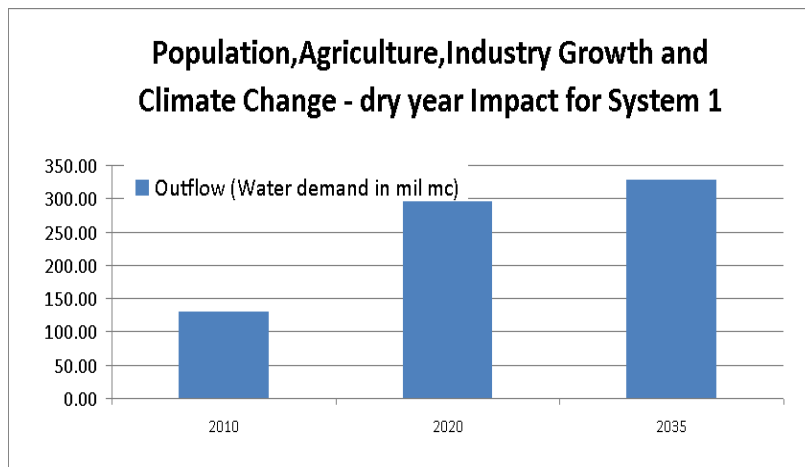
- General impact of population, agriculture, industry growth and climate change on water demand

Table 29 : Results for System 1 (population growth + agriculture growth + industry growth + climate change – dry year)

	2010	2020	2035
Inflow (in mil mc)	415.09	532.14	301.12
Outflow (Water demand in mil mc)	130.09	294.83	327.81

The impact of population, irrigated area, industry growth and climate change - dry year - on water demand for system 1 is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 197 mil mc, which means an increasing rate of 151 % (see Table 29).

Figure 64 : Population, Agriculture, Industry Growth and Climate Change Impact on System 1 Water Demand



- For 2020

Figure 63 : WEAP Water Demand for all System 1 demands

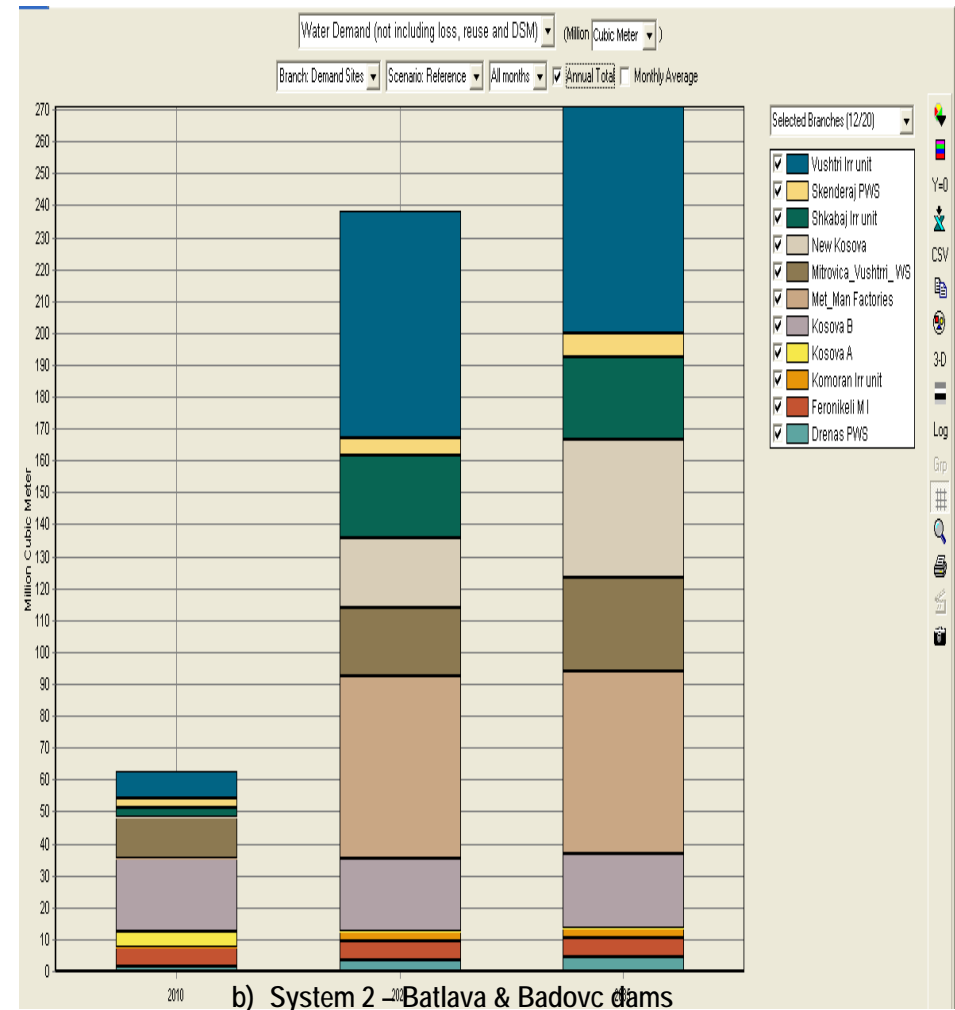


Figure 65 : Batllava Monthly Inflow and Outflow – Scenario 4– 2020

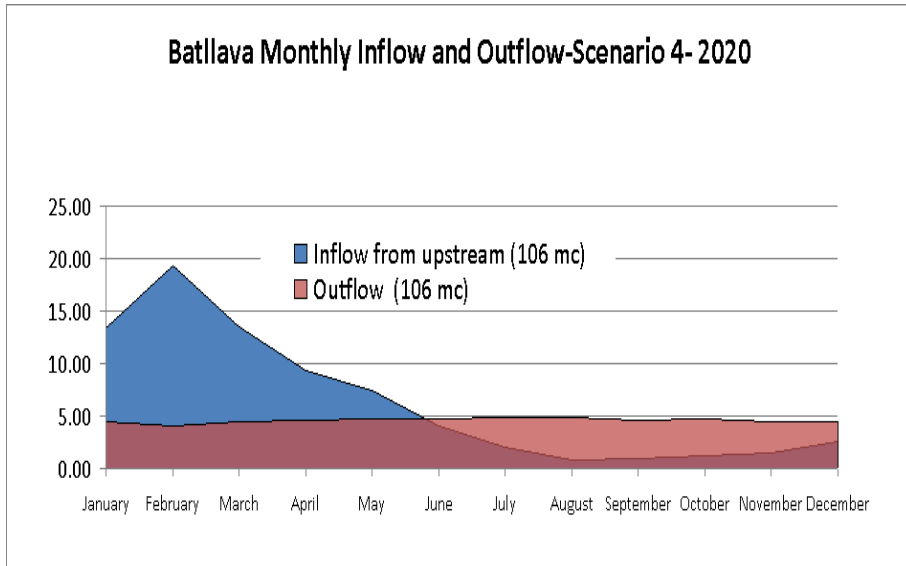
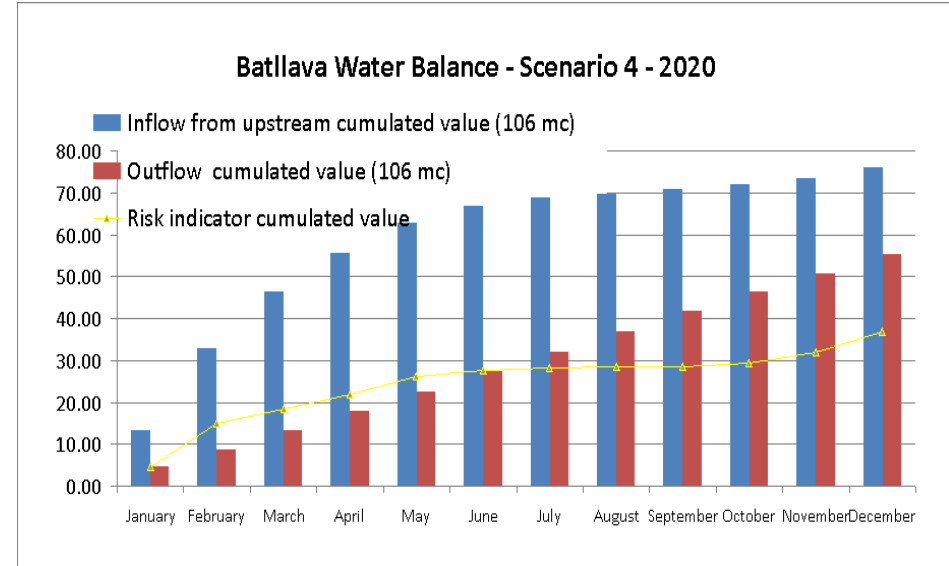


Figure 66 : Batllava Water Balance – Scenario 4– 2020



Results Interpretation:

- A 2020 monthly distribution of the inflow and outflow of Batllava reservoir can be seen in Figure 65. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system till June but due to the water cumulated effect of the dam the water demand it is satisfied (see Figure 66)
- The comparison of the cumulated inflow (blue column) and the cumulated inflow for a very dry season (yellow line) affirms that it is not necessary right now to implement new measures for bulking water in Batllava dam; We still have some merge before to reach the inflow supposed during the very dry year season (yellow line).

Figure 67 : Badovc Monthly Inflow and Outflow – Scenario 4– 2020

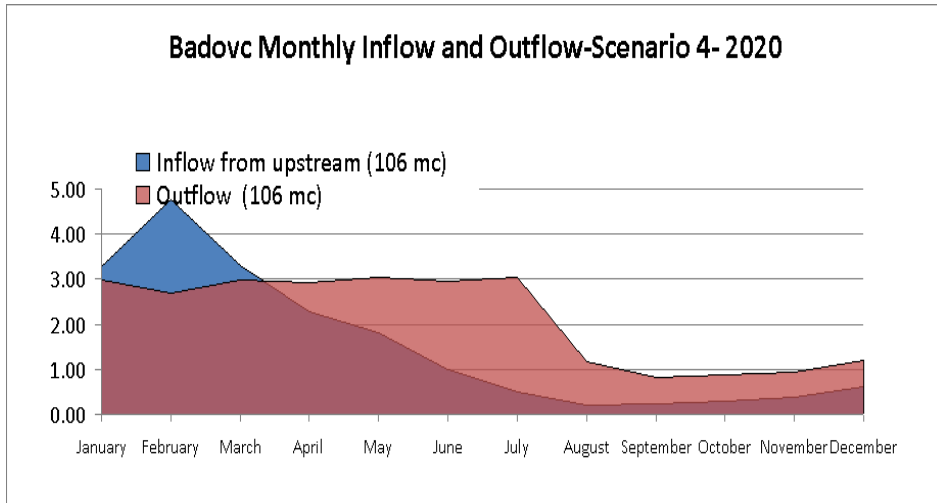
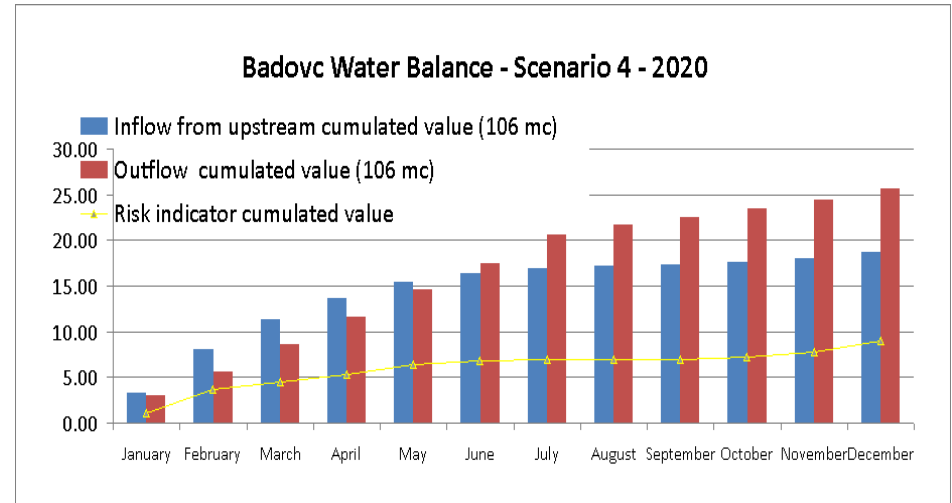


Figure 68 : Badovc Water Balance – Scenario 4– 2020



Results Interpretation

A 2020 monthly distribution of the inflow and outflow of Badovc reservoir can be seen in Figure 67. If we make a comparison between the inflow and outflow values of each month, we can observe that the water demand (outflow) requested during the irrigation season is upper to the water available (inflow) for the same period. However the demand will not be satisfied during 1 the year even do we take into consideration the cumulative effect of Badovc dam (See the Figure 68). These last figure also present the necessity to think about potential measures in order to avoid the future hydraulic stress.

- For 2035

Figure 69 : Batllava Monthly Inflow and Outflow – Scenario 4– 2035

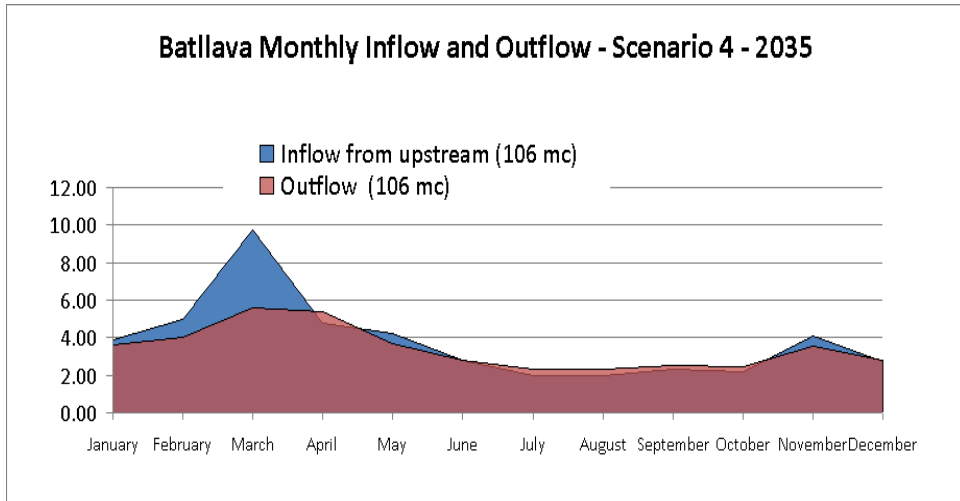
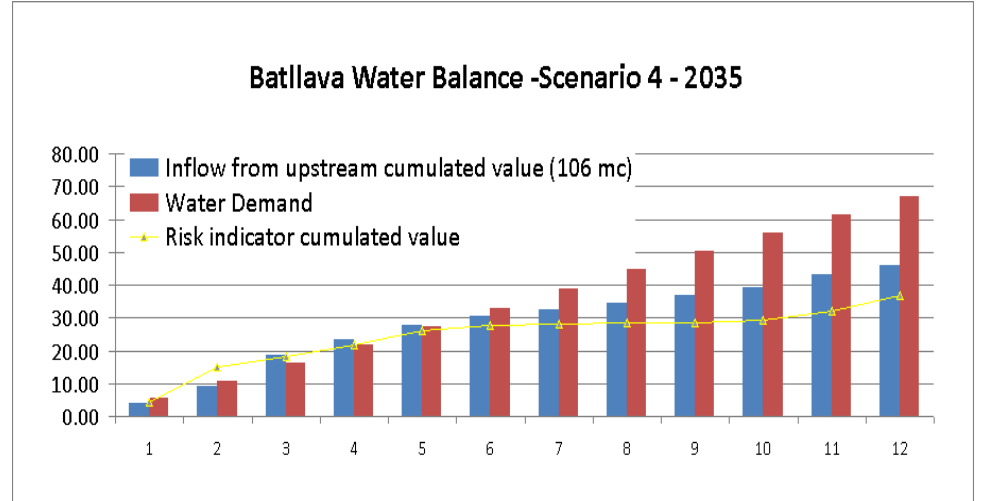


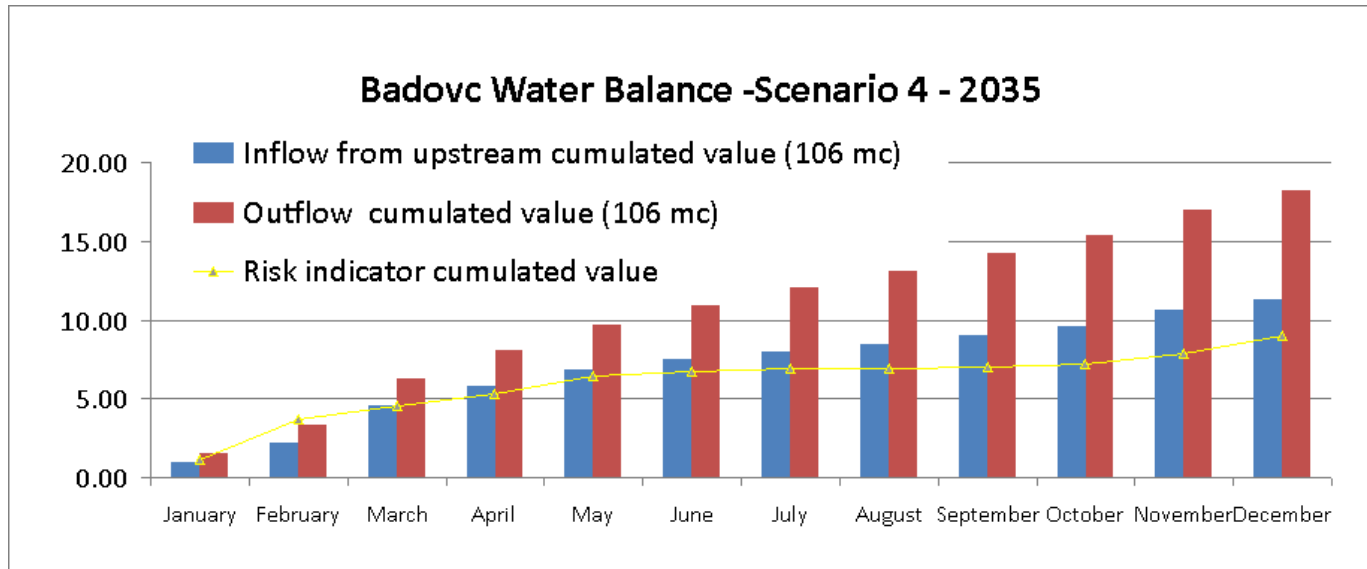
Figure 70 : Batllava Water Balance – Scenario 4– 2035



Results Interpretation:

A 2035 monthly distribution of the inflow and outflow of Batllava reservoir can be seen in Figure 69. If we make a comparison between the inflow and outflow values of each month, we can observe that we don't have enough water available in the system, point confirmed by the Figure 70.

Figure 71 : Badovc Water Balance – Scenario 4– 2035



Results Interpretation:

A 2035 water balance graph shows that the demand will not be satisfied during the year by the Badovc dam (See the Figure 71). That's indicate the fact that t is time to think to any measure in order to assure water security distribution from Badovc system.

- General impact of population, agriculture, industry growth and climate change on water demand

Table 30 : Results for System 2 (population growth + agriculture growth + industry growth + climate change-very dry year)

	2010	2020	2035
Inflow (in mil mc)	91.73	94.58	57.12
Outflow (Water demand in mil mc)	67.01	90.48	102.98

The impact of population, irrigated area, industry growth and climate change - dry year - on water demand for System 2 (Batllava + Badovc) it is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 42.8 mil mc, which means an increasing rate of 64% (see Table 30).

Figure 73 : Population +Agriculture + Industry Growth + Climate change Impact for System 2

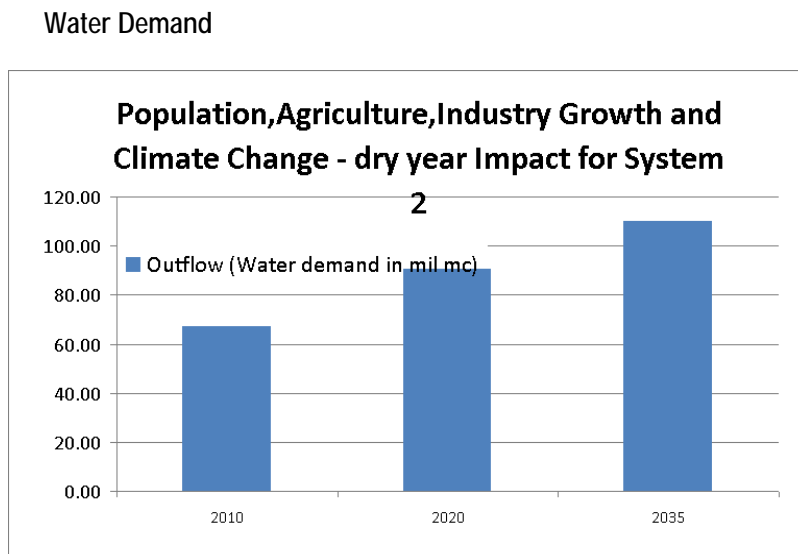


Figure 72 : WEAP Water Demand for Industry in System 2



c) System 3 – Groundwater

- General impact of population, agriculture, industry growth and climate change on water demand

Table 31 : Results for System 3 (population growth + agriculture growth + industry growth +climate change)

	2010	2020	2035
Inflow (in mil mc)	11.98	14.05	14.71
Outflow (Water demand in mil mc)	7.44	12.63	18.33

The impact of population, irrigated area, industry growth and climate change - dry year - on water demand for System 3 (Groundwaters) it is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 11 mil mc, which means an increasing rate of 146.4% (see Table 31).

Figure 75 : Population +Agriculture + Industry Growth + Climate Change Impact for System 3

Water Demand

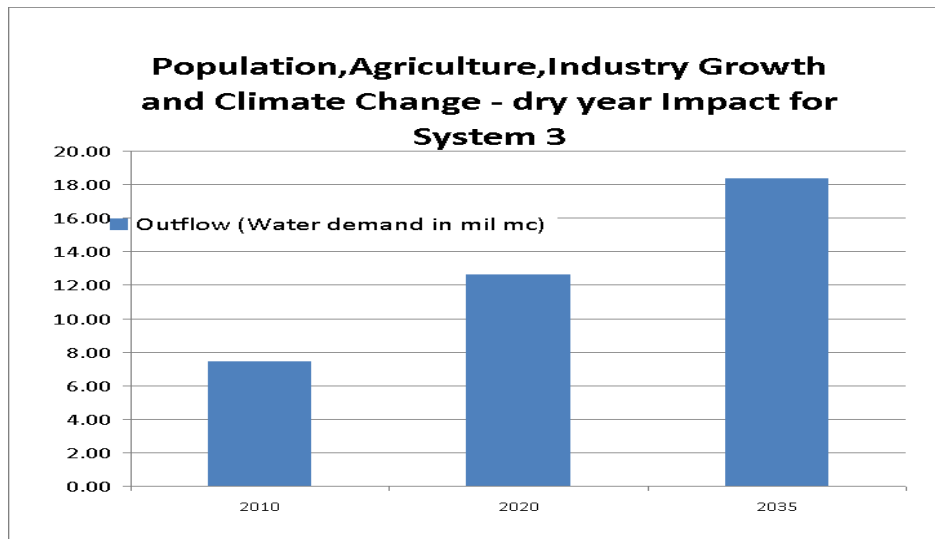
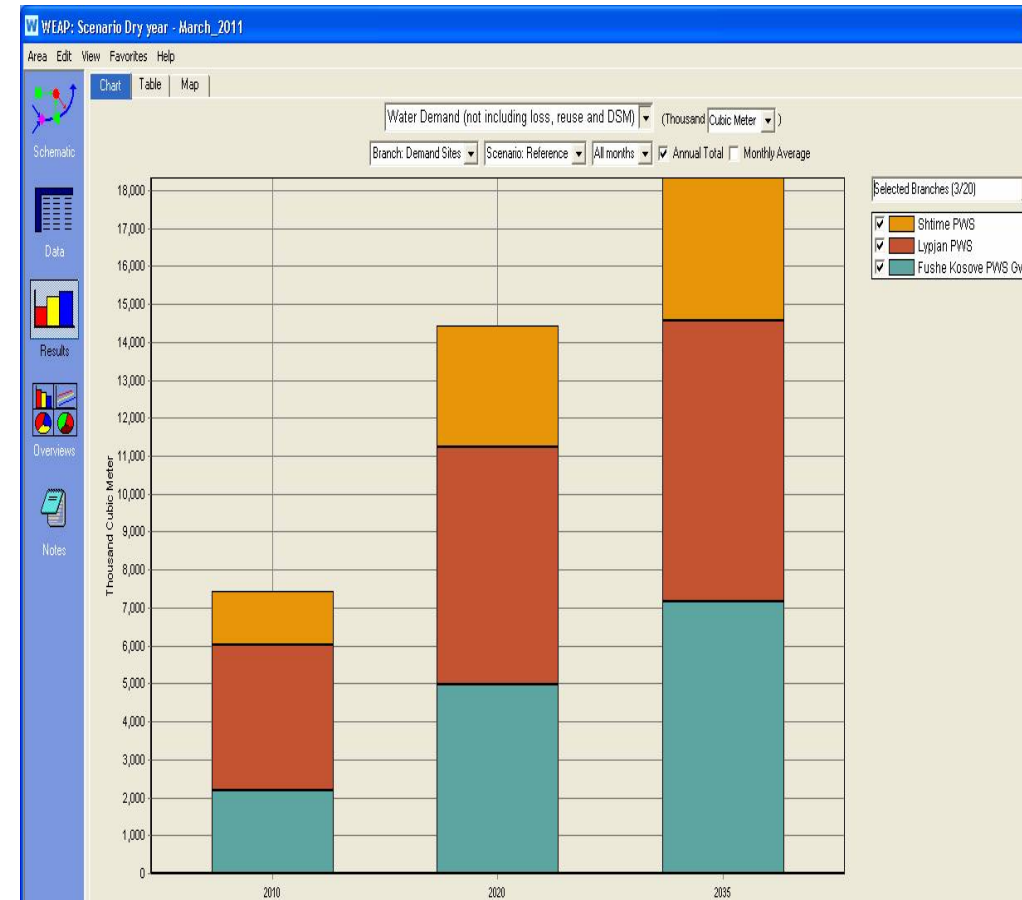


Figure 74 : WEAP Water Demand in System 3



2. Climate change effect for a very dry year period (the worst case scenario)

a) System 1 – Gazivoda dam

- For 2020

Figure 76 : Gazivoda Monthly Inflow and Outflow – Worst Case Scenario – 2020

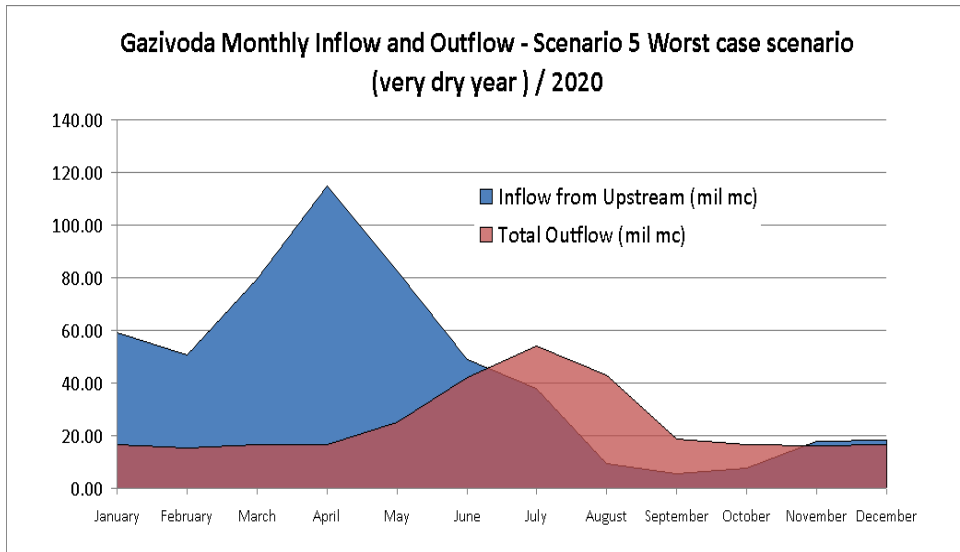
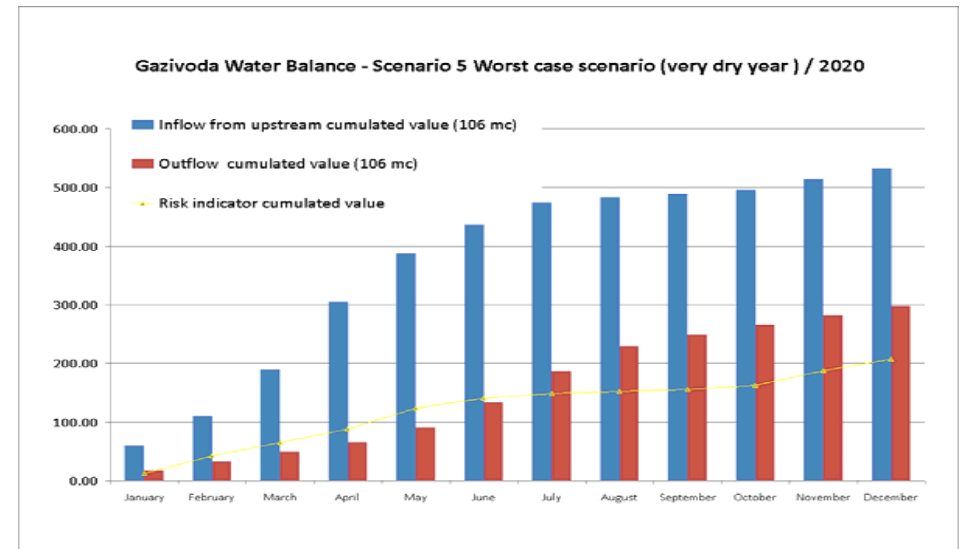


Figure 77 : Gazivoda Water Balance – Worst Case Scenario – 2020



Results Interpretation:

A 2020 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 76. If we make a comparison between the inflow and outflow values of each month, we can observe that we have enough water available in the system from January to May but during and after the irrigation season we can have problems. However, due to the water cumulated effect of the dam (see Figure 77) the Gazivoda System it is satisfying his demands.

- For 2035

Figure 78 : Gazivoda Monthly Inflow and Outflow – Worst Case Scenario – 2035

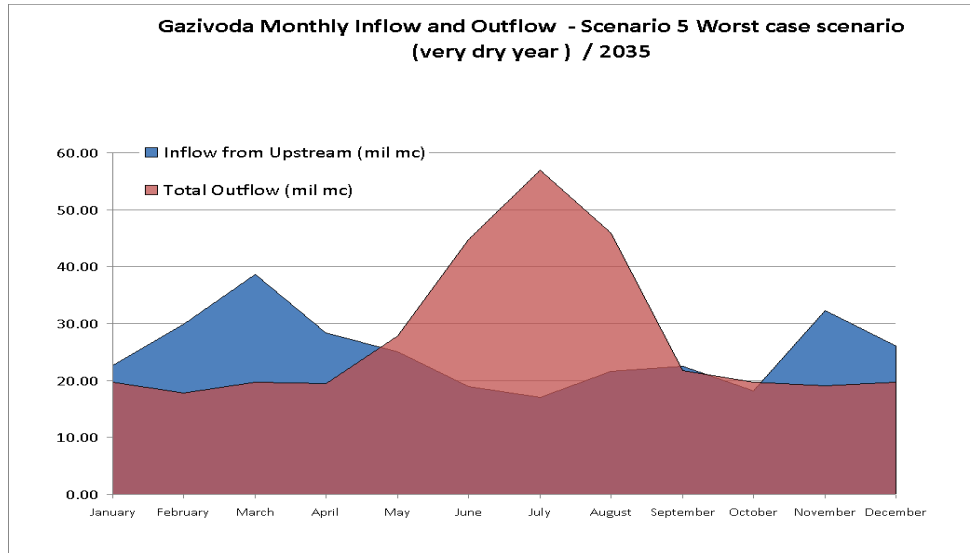
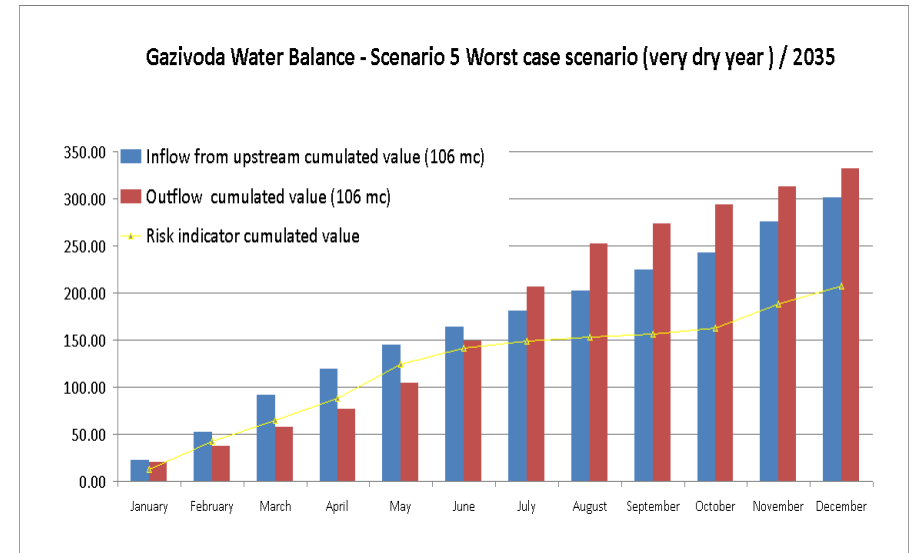


Figure 79 : Gazivoda Water Balance – Worst Case Scenario – 2035



Results interpretation:

A 2035 monthly distribution of the inflow and outflow of Gazivoda reservoir can be seen in Figure 78. If we make a comparison between the inflow and outflow values of each month, we can observe that the water demand (outflow) requested during the irrigation season is upper to the water available (inflow) for the same period. We can also notice that the demand in June to December is not satisfied (See figure 79 - The red column is over the blue one) This results indicate clearly that in a 2035 investment perspective, it will be necessary to implement new measure, in order to bulk enough water, and then ensure the water security distribution from the Gazivoda dam.

- General impact of population growth on water demand

Table 32 : Results for System 1 (worst case scenario)

	2010	2020	2035
Inflow (in mil mc)	415.09	532.14	301.12
Outflow (Water demand in mil mc)	130.09	298.16	332.38

The impact of population, irrigated area, industry growth and climate change - very dry year - on water demand for system 1 is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 202.29 mil mc, which means an increasing rate of 155% (see Table 32).

Figure 81 : Worst case scenario Impact of System 1 Water Demands

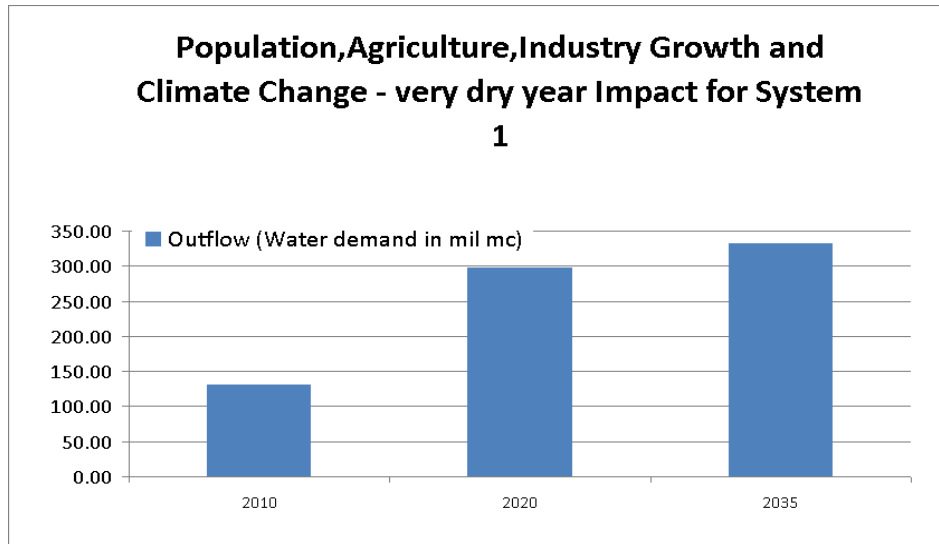
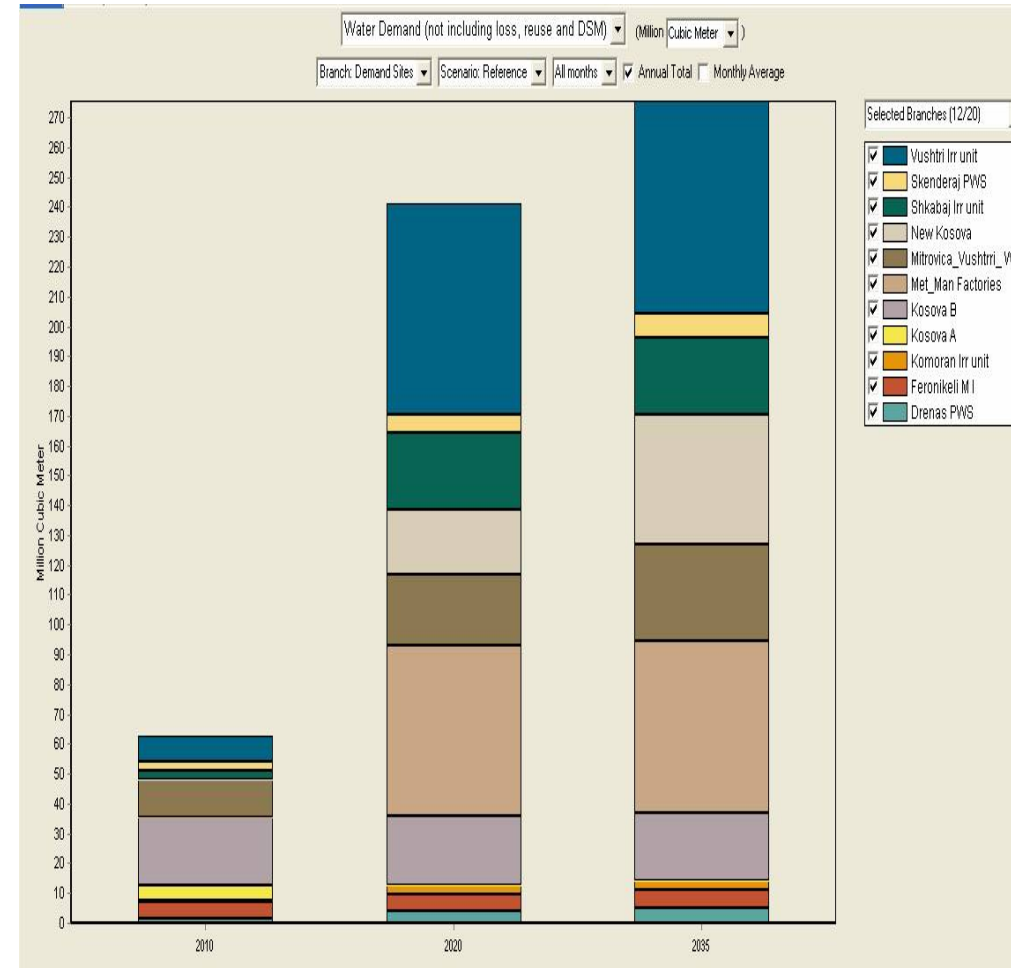


Figure 80 : WEAP Water Demand for all System 1 Demands



b) System 2 – Batlava & Badovc dams

- For 2020

Figure 82 : Batlava Monthly Inflow and Outflow – Worst Case Scenario – 2020

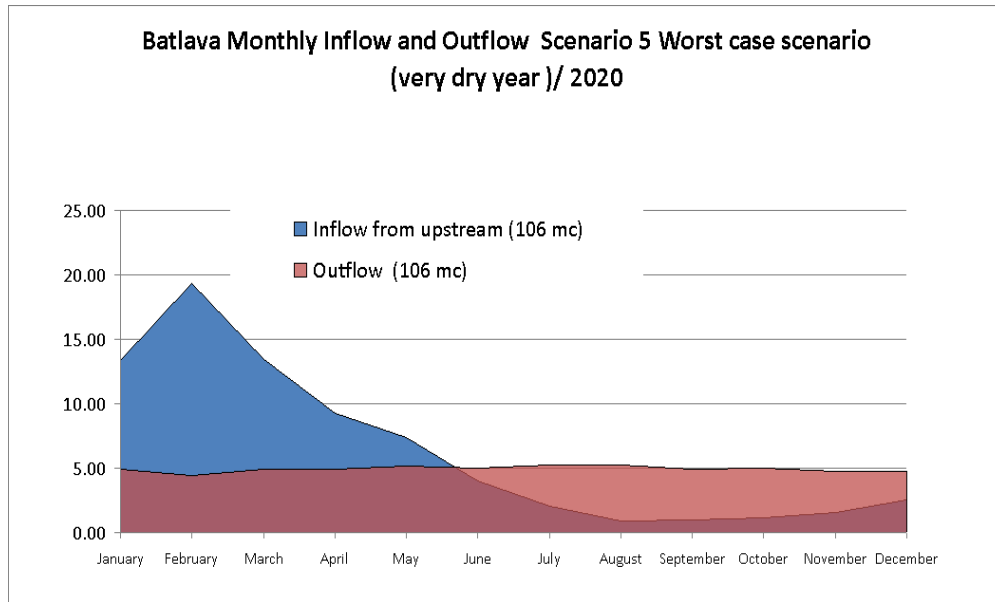
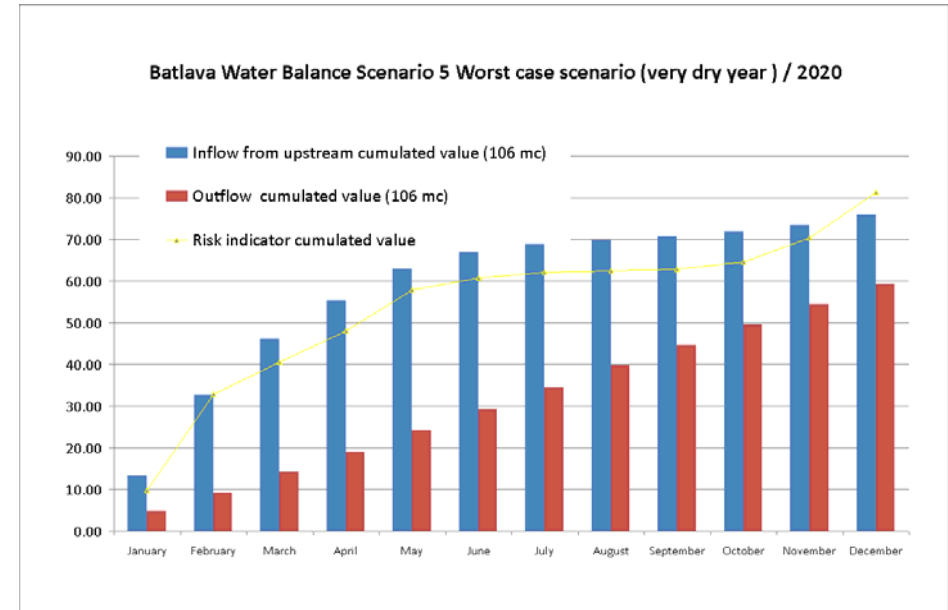


Figure 83 : Batlava Water Balance – Worst Case Scenario – 2020



Results Interpretation:

Figure 83 shows that we have enough water available in the system, even if the water demand during the irrigation season.

Then for a prospection of 2020, no measures are requested to be implemented, in order to satisfy all the future demand from this Batlava reservoir.

Figure 84 : Badovc Monthly Inflow and Outflow – Worst Case Scenario – 2020

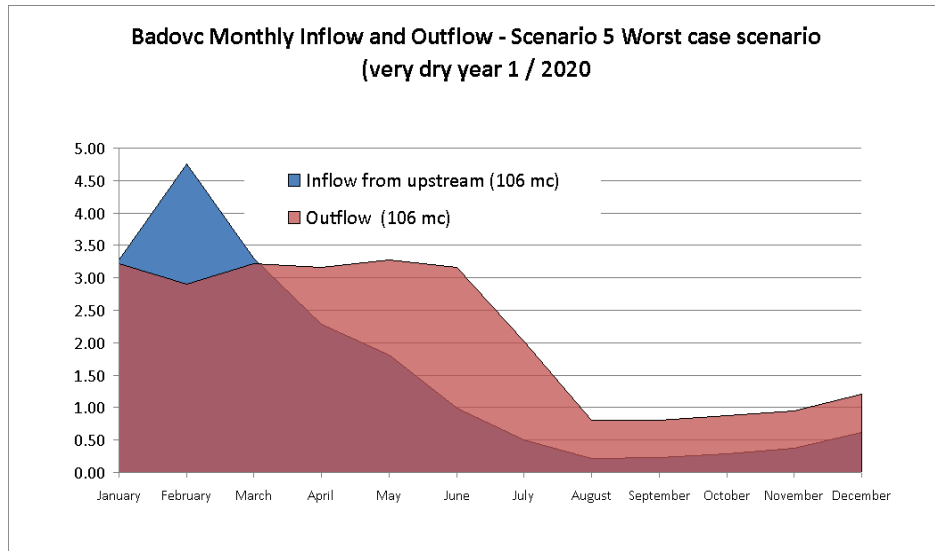
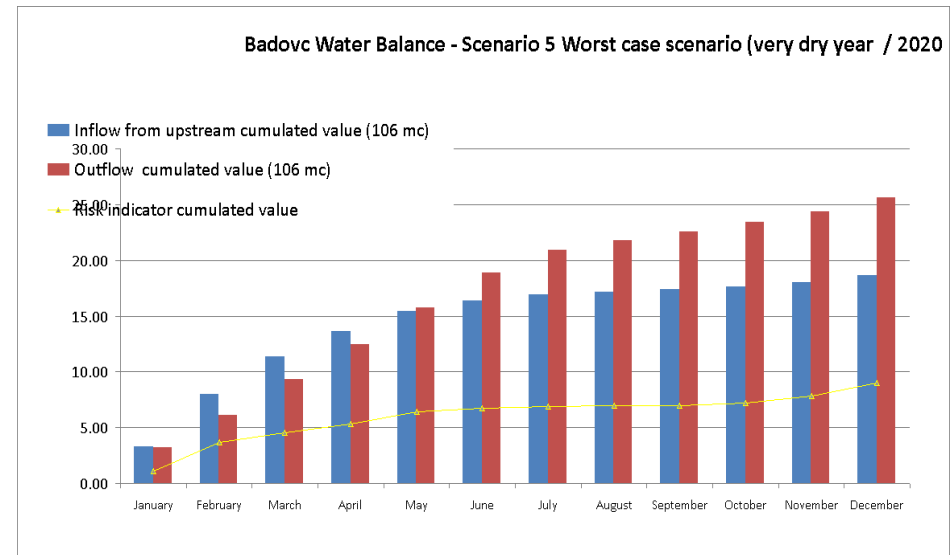


Figure 85 : Badovc Water Balance – Worst Case Scenario – 2020



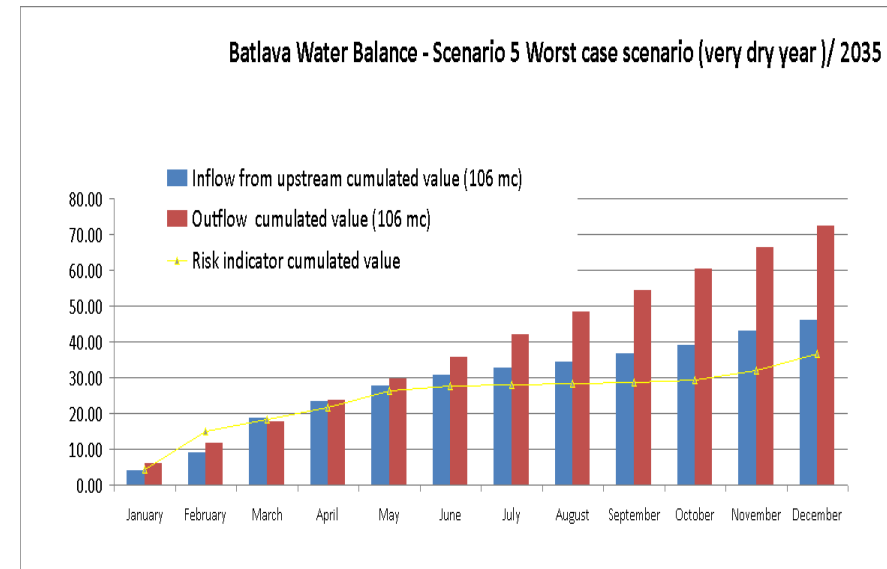
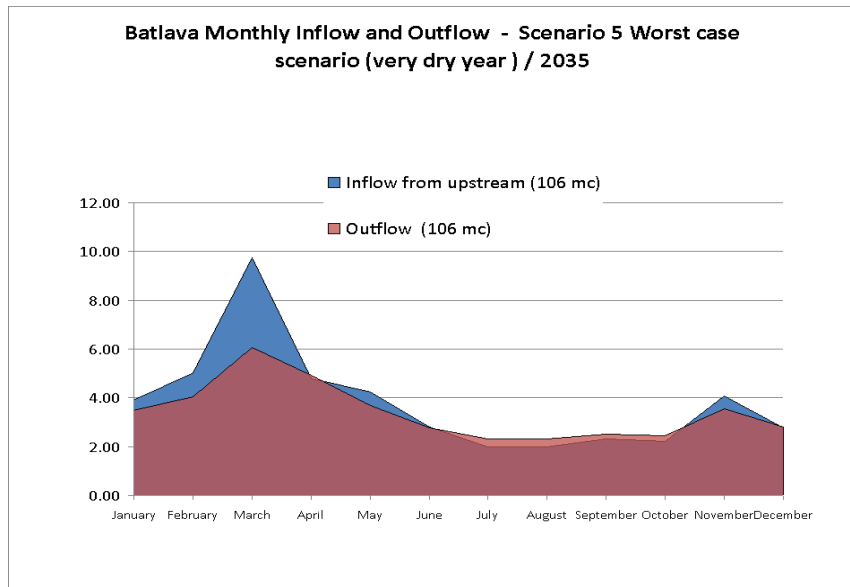
Results interpretation:

A 2035 monthly distribution of the inflow and outflow of Badovc reservoir can be seen in Figure 84. If we make a comparison between the inflow and outflow values of each month, we can observe that the water demand (outflow) requested during the irrigation season is upper to the water available (inflow) for the same period. However the demand will not be satisfied during the year (See the Figure 85).

- For 2035

Figure 86 : Batllava Monthly Inflow and Outflow – Worst Case Scenario – 2035

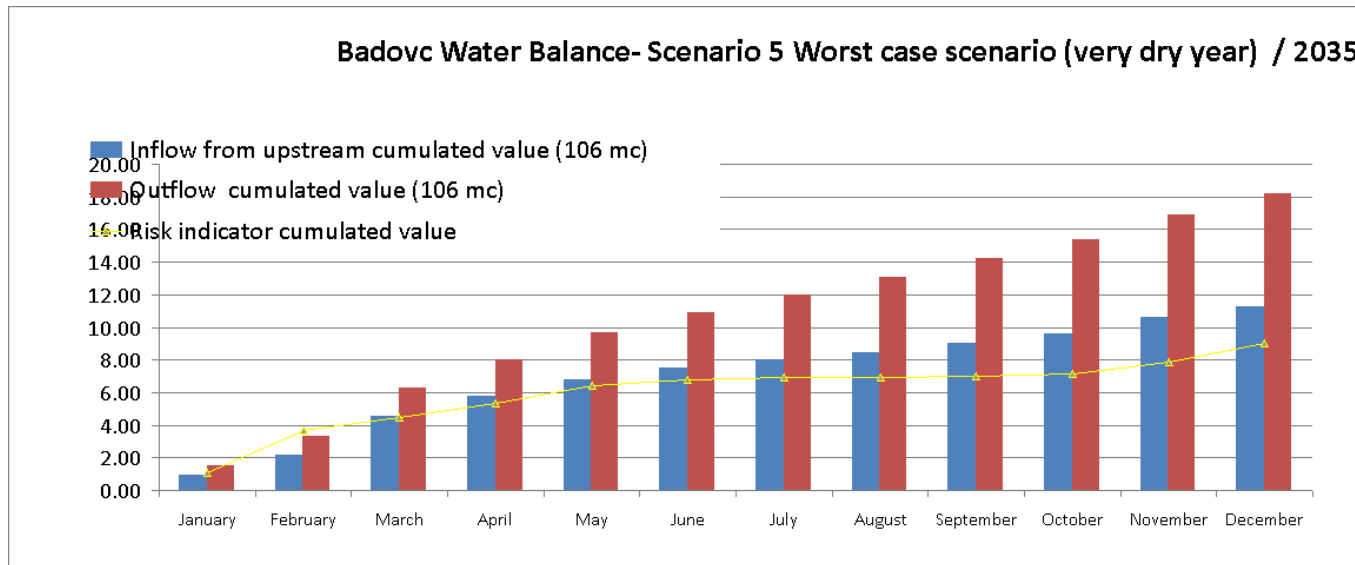
Figure 87 : Batllava Water Balance – Worst Case Scenario – 2035



Results Interpretation:

A 2035 monthly distribution of the inflow and outflow of Batllava reservoir can be seen in Figure 86. If we make a comparison between the inflow and outflow values of each month, we can observe that we don't have enough water available in the system all the year, point confirmed by the Figure 87.

Figure 88 : Badovc Water Balance – Worst Case Scenario – 2035



Results interpretation

A 2035 water balance graph shows that the demand will not be satisfied during the year by the Badovc dam (See the Figure 88).

- General impact of population growth on water demand

Table 33 : Results for System 2 worst case scenario

	2010	2020	2035
Inflow (in mil mc)	91.73	94.58	57.12
Outflow (Water demand in mil mc)	67.01	90.48	109.82

The impact of population, irrigated area, industry growth and climate change - very dry year - on water demand for System 2 (Batllava + Badovc) it is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 42 mil mc, which means an increasing rate of 64% (see Table 33).

Figure 90 : Worst Case Scenario Impact on System 2 Water Demands

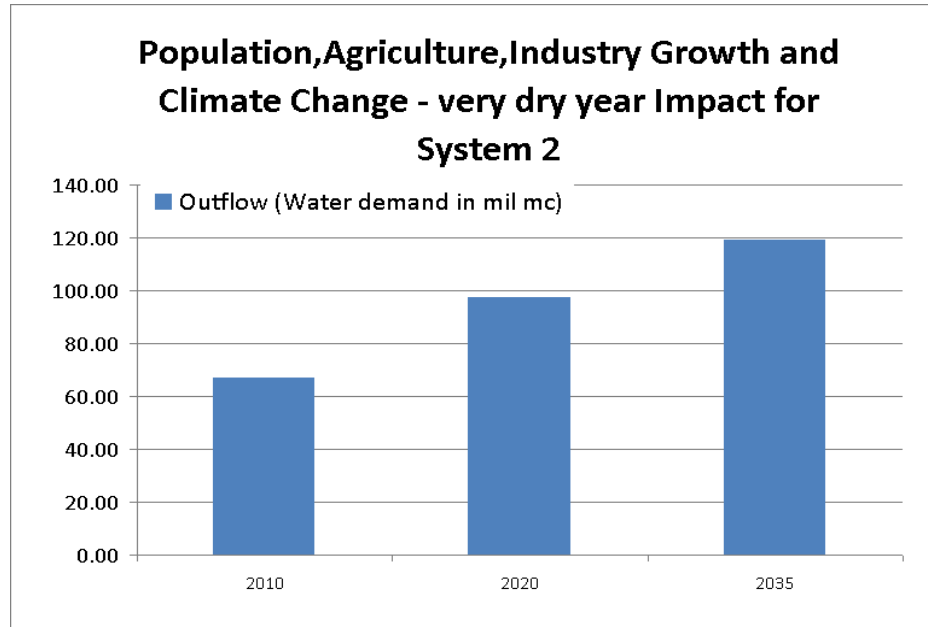


Figure 89 : WEAP Water Demand in System 2



c) System 3 – Groundwater

- General impact of population growth on water demand

Table 34 : Results for System 3 Worst Case Scenario

	2010	2020	2035
Inflow (in mil mc)	11.98	14.05	14.71
Outflow (Water demand in mil mc)	7.44	12.63	18.33

The impact of population, irrigated area, industry growth and climate change - very dry year - on water demand for System 3 (Groundwaters) it is synthesized as follows: in comparison with 2010 situation, in 2035 the water demand will be bigger with 11 mil mc, which means an increasing rate of 148% (see Table 34).

Figure 92 : Worst Case Scenario Impact on System 3 Water Demands

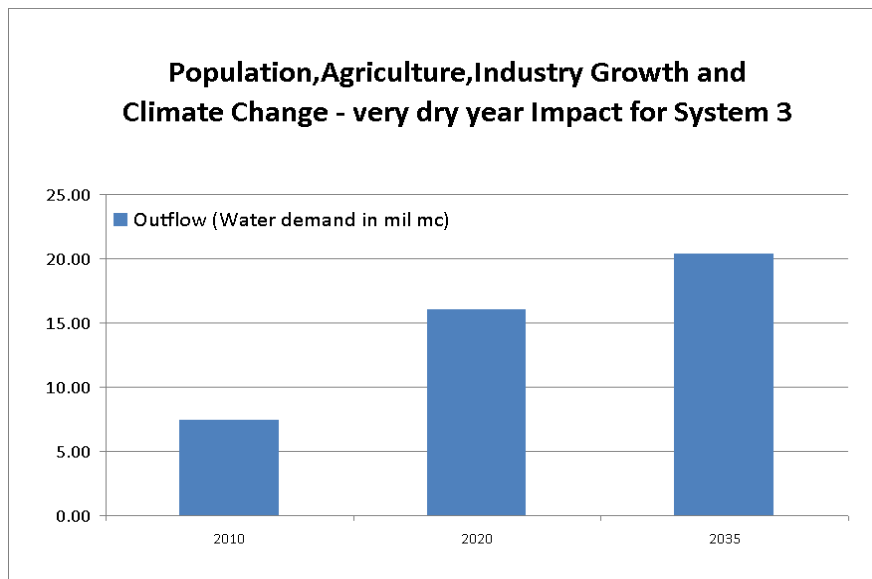
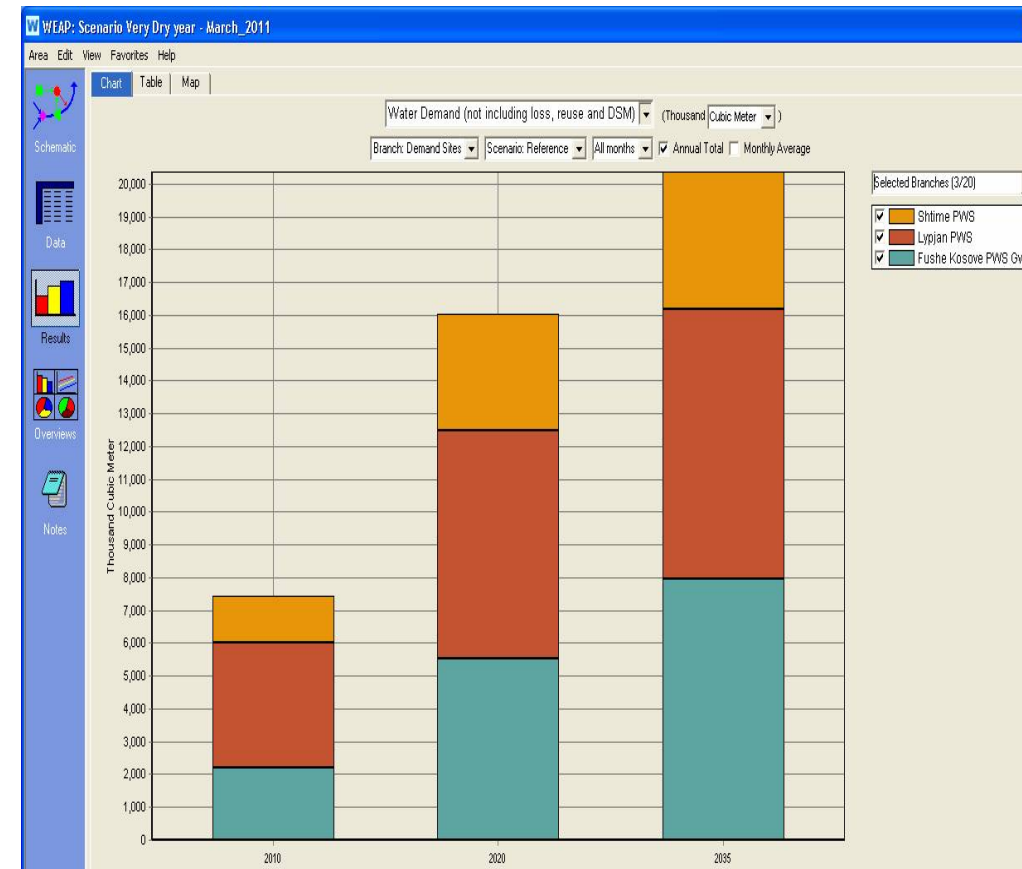


Figure 91 : WEAP Water Demand in System 3



IV. CONCLUSIONS

Using WEAP modeling software, the hydraulic team had built step by step 6 hydraulic models /scenarios in order to be able to analyze the water balance in Iber River Basin.

The 6th scenarios are:

1. baseline scenario -2010
2. population growth scenario
3. population + agriculture growth scenario
4. population + agriculture + industry growth scenario
5. population + agriculture + industry growth + climate change (dry year) scenario
6. population + agriculture + industry growth + climate change (very dry year) scenario = worst case scenario

It has to be mentioned that the quality of the results is depending on major issues, like quality of data available and especially a too short duration of the project, which didn't allowed a calibration of the models built.

As can be seen in the Tables 24, 27, 28, 29 and 32 (analyzing each of the scenario tested for the period 2011 – 2035), the data corresponding to the inflow for Gazivoda reservoir are similar. The explanation is that the data which are changing depending of the scenarios have a directly effect only on the outflows values (quantity of water supplied).

For the climate change scenarios, the inflow values are represented by the risk indicator values (the yellow line from the water balance graphs, representing 50% less then the normal year inflow).

Table 35 is summarizing the impact of each parameter (population, agriculture, industry, climate change) on the water demand values for each system.

Table 35 : Impact of different parameters on the Water Demand from Iber River Basin

System	Population Growth Impact (%)	Agriculture Growth Impact (%)	Industry Growth Impact (%)	Climate Change – dry year- Impact (%)	Climate Change – very dry year- Impact (%)
System 1 - Gazivoda System	7.7	68.3	72.7	78.3	82.3
System 2 - Batllava System	27.5	-	-	38.5	52.5
System 2 - Badovc System	18.3	-	-	41.7	55.4
System 3 - Groundwater System	25	-	-	121	148

HOT POTS IDENTIFICATION

In this paragraph, only results regarding the simulation of scenarios 1, 4 and 5 will be presented, because only these scenarios present a deficiency to assure water security in central Kosovo.

Table 36: Water missing in Gazivoda system – System 1

	Water missing (million cubic meter) - Values extracted from WEAP					
	2035 Dry year			2035 Very dry year		
	August	September	October	August	September	October
Gazivoda system 2035	9.195	3.381	0	12.240	6.802	3.559
Total	12.6			22.6		

Figure 93: Unmet demand in Badovc system – System 2 – Population Scenario – 2020

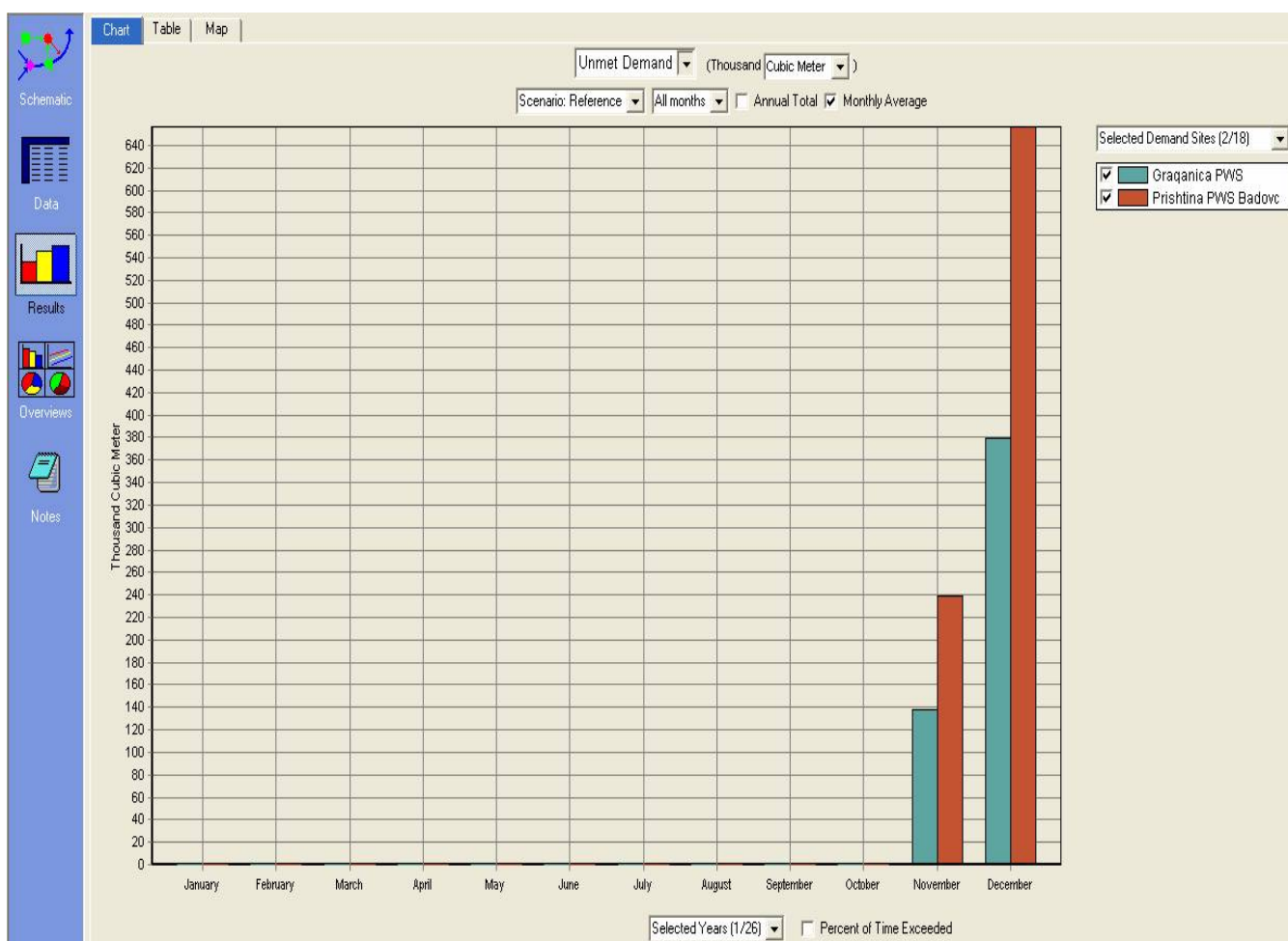


Figure 94: Unmet demand in Badovc system – System 2 – Population Scenario – 2035



Figure 95: Unmet demand in Badovc system – System 2 – Dry year Scenario – 2020

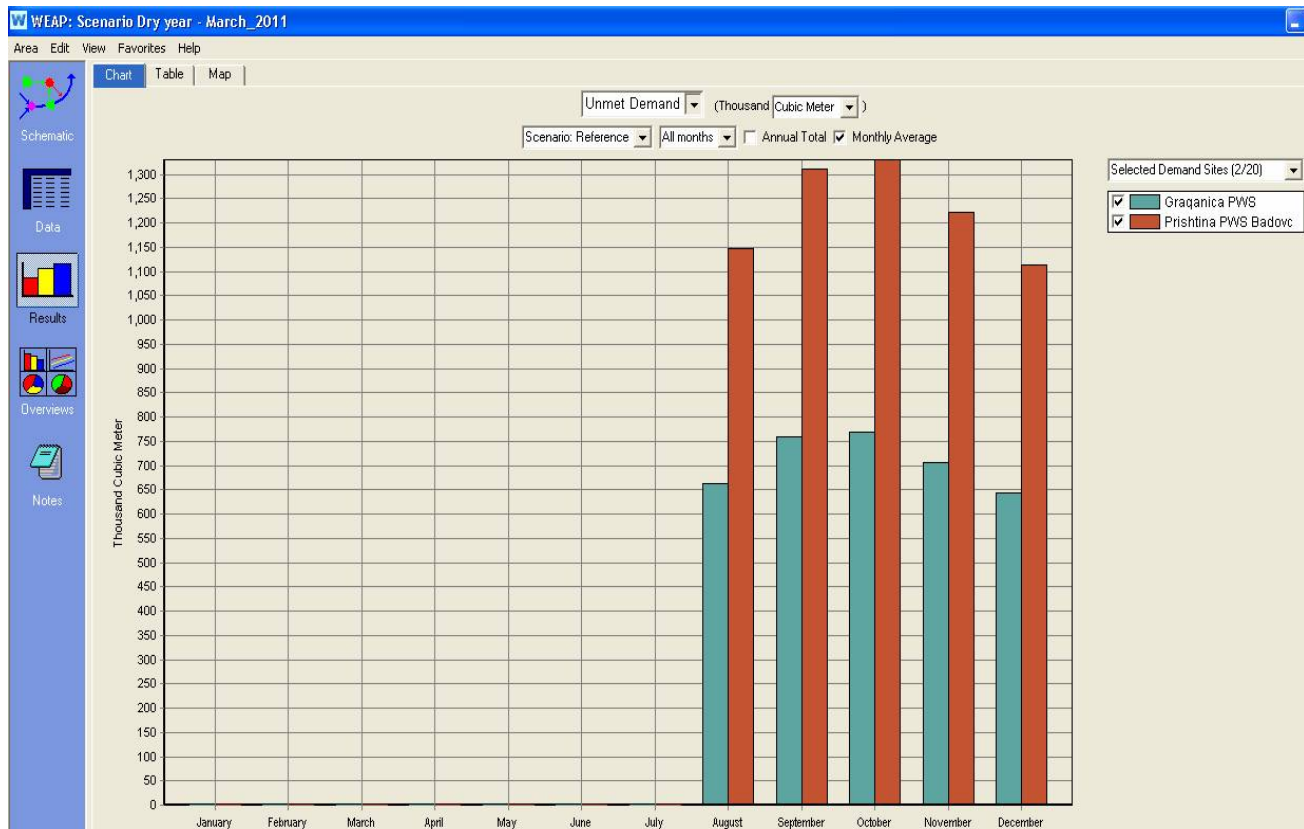


Figure 96: Unmet demand in Badovc system – System 2 – Dry year Scenario – 2035

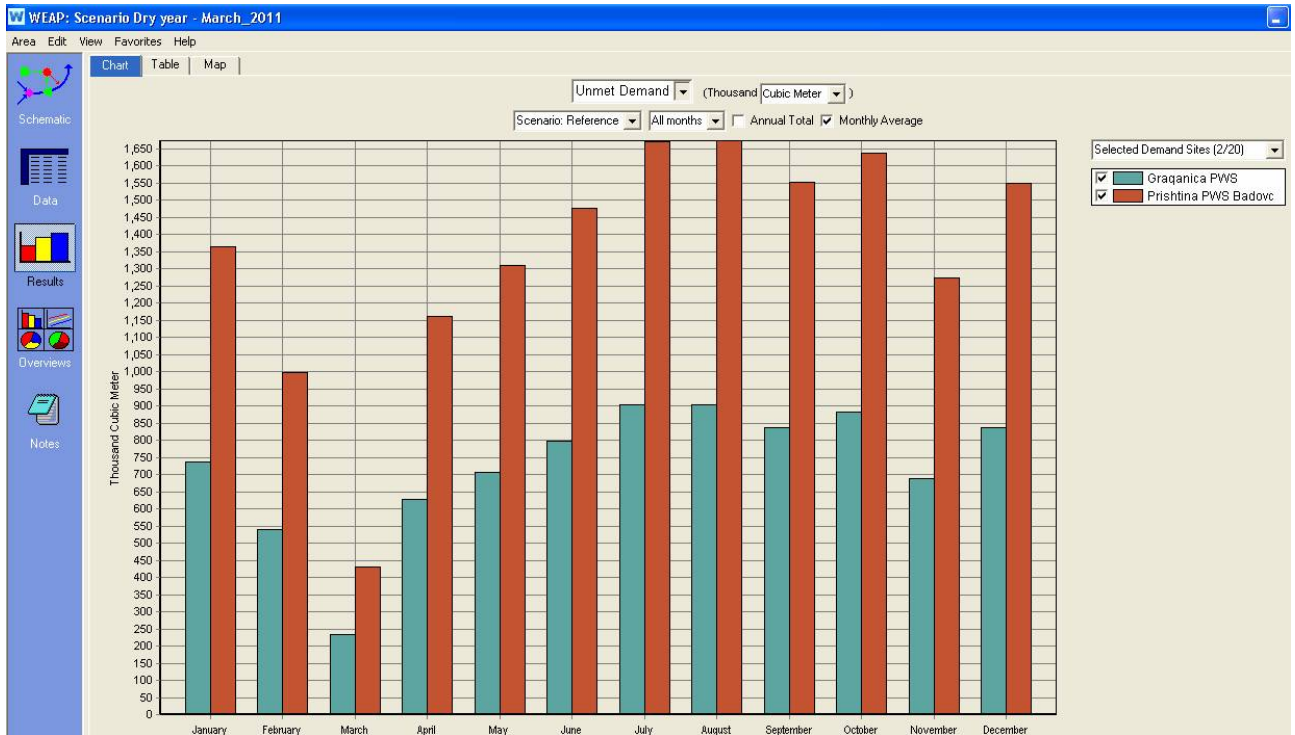


Figure 97: Unmet demand in Batllava system – System 2 – Dry year Scenario – 2035



Figure 98: Unmet demand in Badovc system – System 2 – Very dry year Scenario – 2020

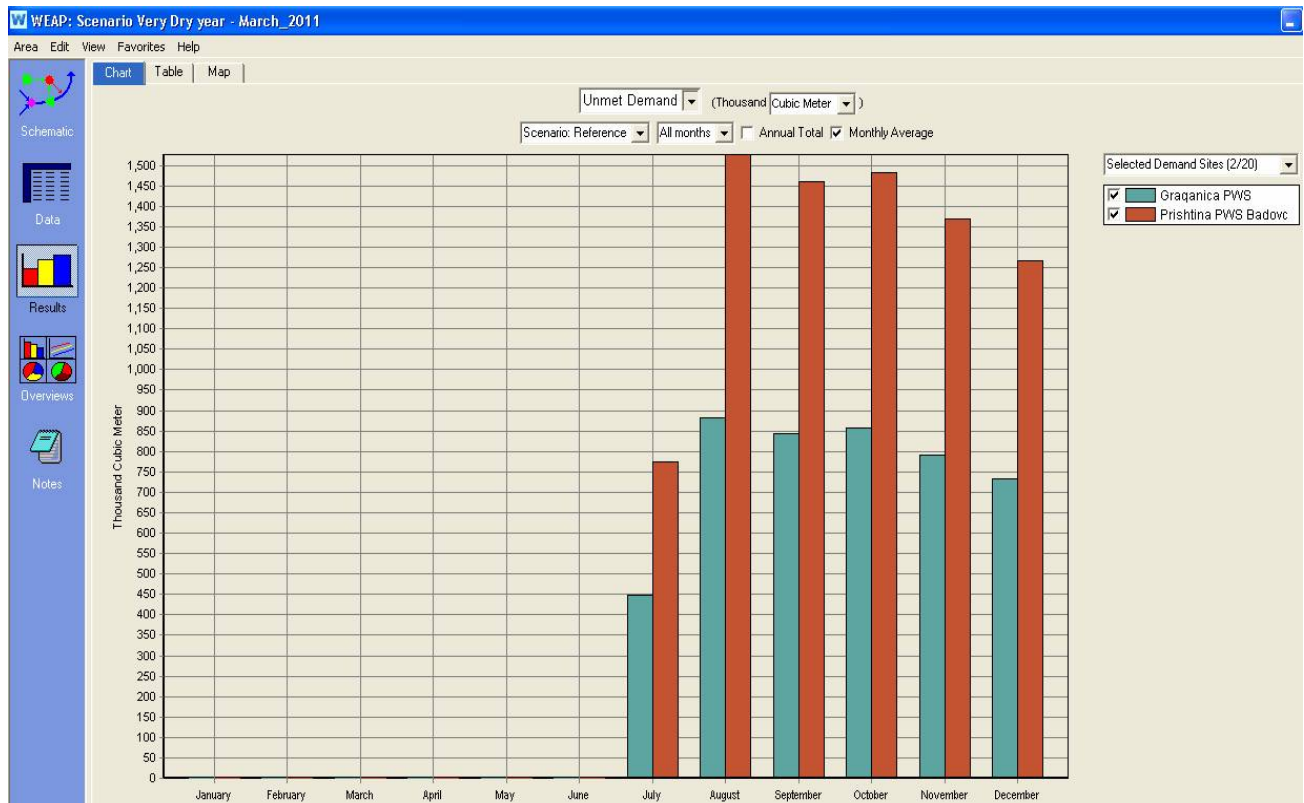


Figure 99: Unmet demand in Badovc system – System 2 – Very dry year Scenario – 2035

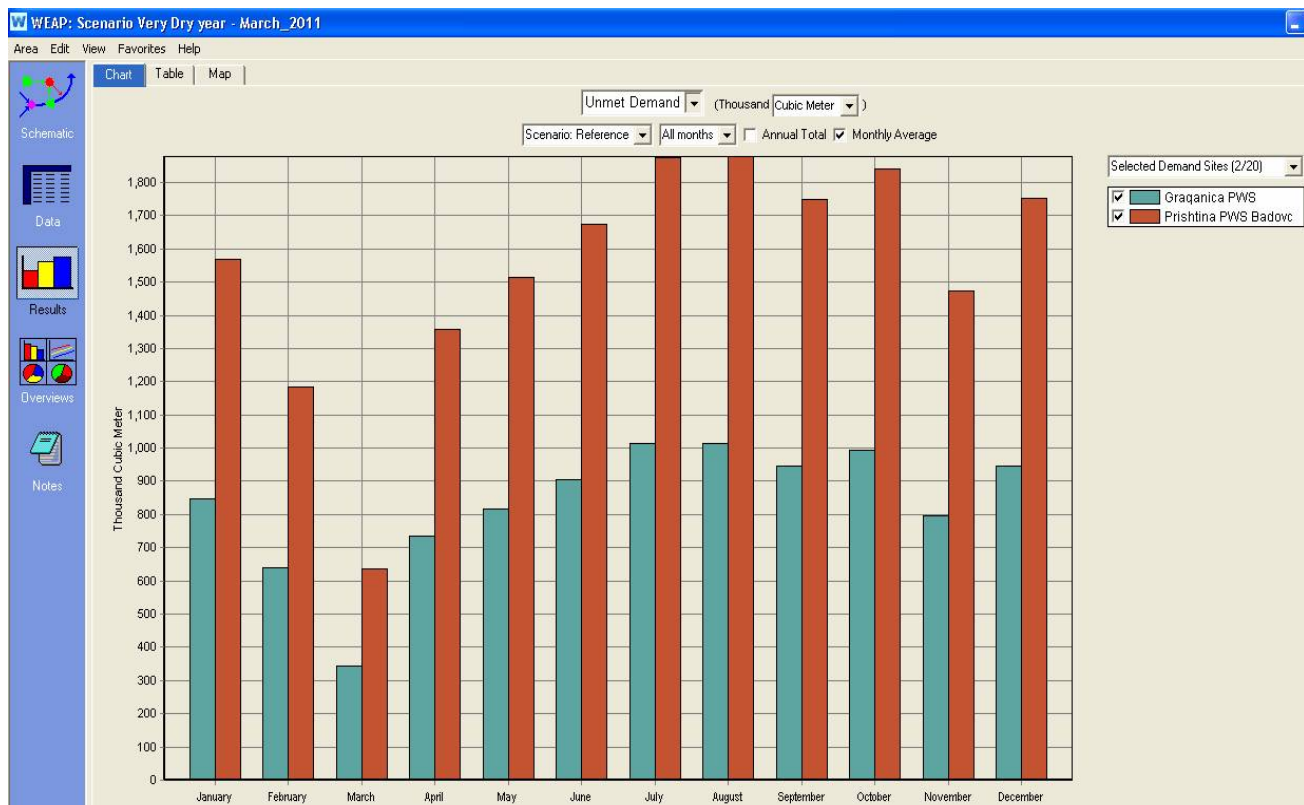


Figure 100: Unmet demand in Batllava system – System 2 – Very dry year Scenario – 2035

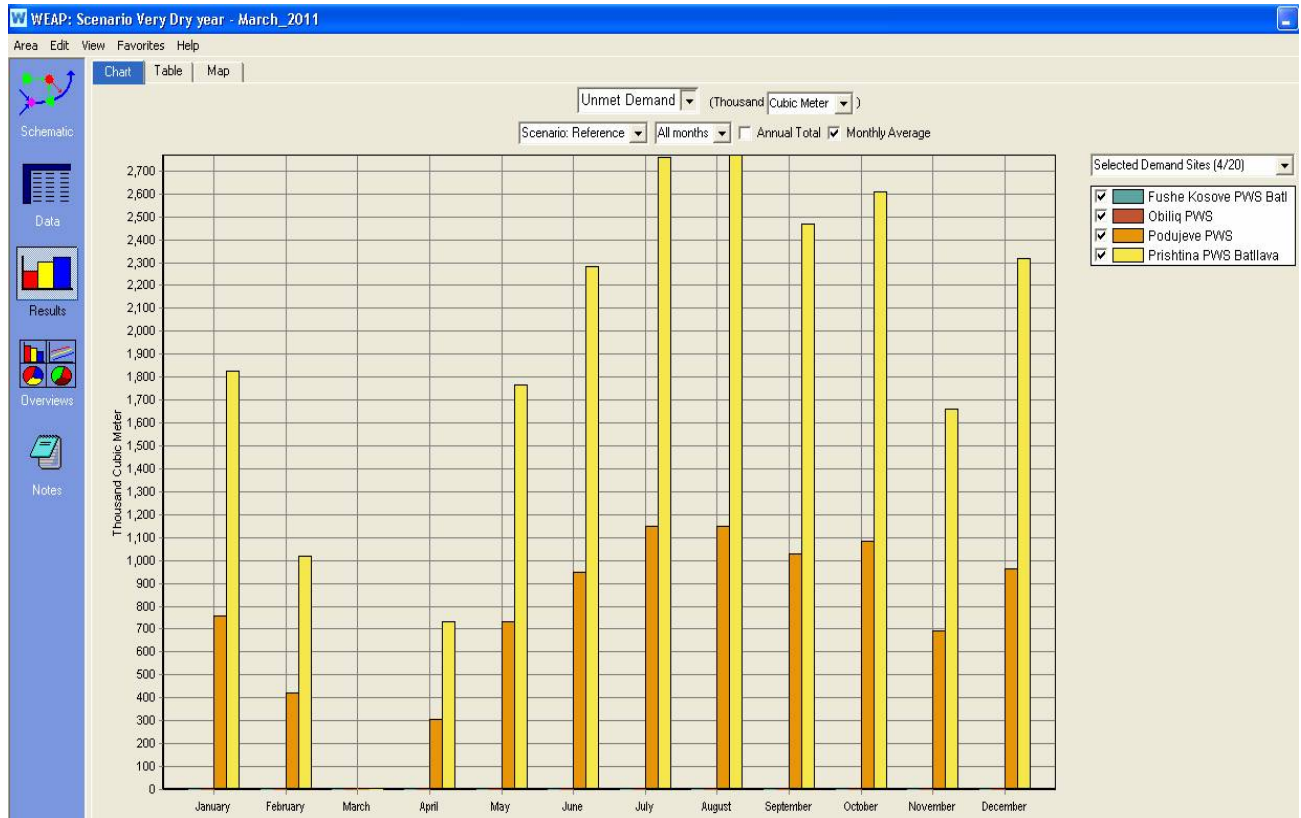


Table 37 is summarizing the analysis made on the results obtained under WEAP model development.

Table 37 : WEAP Results Analysis

System	Scenario	2020	2035
System 1 - Gazivoda System	Scenario 1	Water security assured – nothing to do	Water security assured but limited – Start to think about measures to implement
	Scenario 2	Water security assured – nothing to do	Water security assured but limited – Start to think about measures to implement
	Scenario 3	Water security assured – nothing to do	Water security not assured anymore – Measures required with best investment have to be implemented
	Scenario 4	Water security assured – nothing to do	Water security not assured anymore – Measures required with best investment have to be implemented
	Worst Case scenario	Water security assured – nothing to do	Water security not assured anymore – Measures required with best investment have to be implemented
System 2 - Batllava System	Scenario 1	Water security assured – nothing to do	Water security not assured anymore – Measures required with best investment have to be implemented
	Scenario 2	Not eligible	Not eligible
	Scenario 3	Not eligible	Not eligible
	Scenario 4	Water security assured – nothing to do	Water security assured – nothing to do
	Worst Case scenario	Water security assured – nothing to do	Water security not assured anymore – Measures required with best investment have to be implemented
System 2 - Badovc System	Scenario 1	Water security not assured anymore – Measures required with best investment have to be implemented	Water security not assured anymore – Measures required with best investment have to be implemented
	Scenario 2	Not eligible	Not eligible
	Scenario 3	Not eligible	Not eligible
	Scenario 4	Water security not assured anymore – Measures required with best investment have to be implemented	Water security not assured anymore – Measures required with best investment have to be implemented
	Worst Case scenario	Water security not assured anymore – Measures required with best investment have to be implemented	Water security not assured anymore – Measures required with best investment have to be implemented
System 3 - Groundwater System	Scenario 1	Water security assured – nothing to do	Water security assured – nothing to do
	Scenario 2	Water security assured – nothing to do	Water security assured – nothing to do
	Scenario 3	Water security assured – nothing to do	Water security assured – nothing to do
	Scenario 4	Water security not assured anymore – Measures required with best investment have to be implemented	Water security not assured anymore – Measures required with best investment have to be implemented
	Worst Case scenario	Water security not assured anymore – Measures required with best investment have to be implemented	Water security not assured anymore – Measures required with best investment have to be implemented



Water security assured – nothing to do



Water security assured but limited – Start to think about measures to implement



Water security not assured anymore – Measures required with best investment have to be implemented



Not eligible

The WEAP results show that only in the population, industry and climate change scenarios there are difficulties for bulking water..

There is insufficient supply for the part of:

- Different demand points supplied by the Badovc and Batllava Lake – System 2
- Lypjan and Shtime supplied by Groundwater - System 3
- Different demand points supplied by Gazivoda Lake – System 1 (see Figures 101, 102)

Figure 101 : IL Hotspots identification – dry year

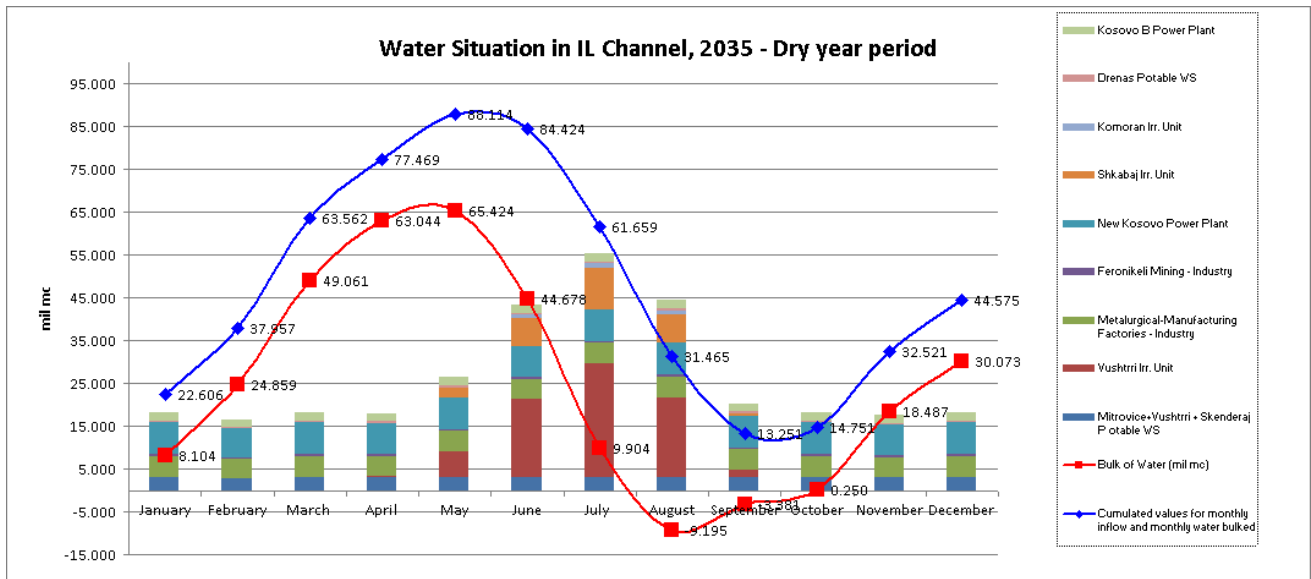
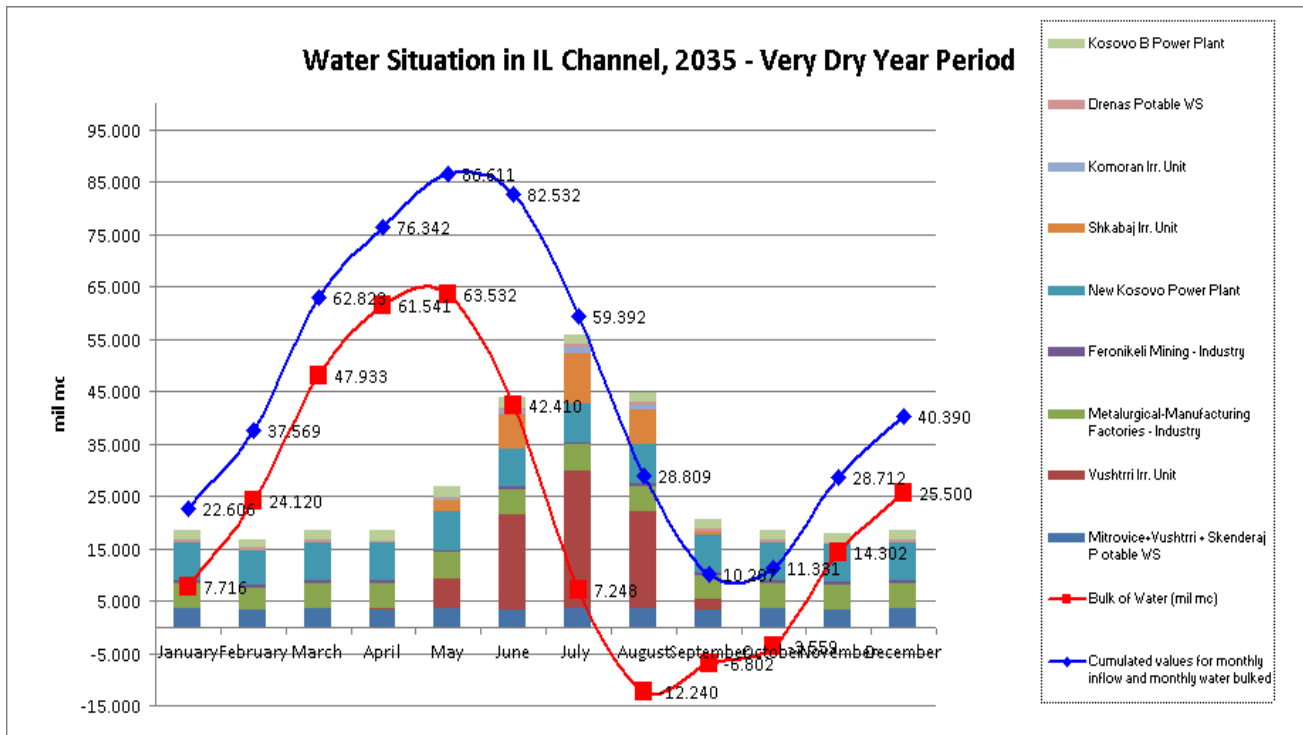


Figure 102 : IL Hotspots identification – very dry year



In addition of these modeling activities developed, the WEAP modeling output can be used in a multi-criteria analysis context, in order to define clearly what would be the better investment which will allow assuring the necessary water demand including all sectors for 2010 and 2035, with the lower budget investment.

For defining the better investment for this project, the output provides by modeling activities could be directly forward to the RAND Team. They have to provide inputs in the priority analysis, with the method used for Robust Decision Making (RDM).

ANNEX 6. COMPARATIVE EVALUATION OF THE BANK'S OPTION STUDY WITH SIERRA CLUB REPORT

Kosovo's Energy Options: Response to the Sierra Club/INDEP Report: Re-evaluating Kosovo's Least Cost Electricity Option

Background

1. In December 2011, the World Bank issued a study entitled "[Development and Evaluation of Power Supply Options for Kosovo: A Background Paper](#)." This "Options Study" reviewed a variety of previous studies commissioned by the Government of Kosovo, the power sector entities, the World Bank, and other donors. Many of these studies considered a variety of alternatives to a new, large lignite-fuelled power plant that the Government of Kosovo is planning to build. However, a systematic, consolidated and up-to-date comparison and evaluation of the costs of energy alternatives had not yet been presented.

2. The Options Study provides this evaluation by covering the subjects necessary to any evaluation of a power generation project:
 - power demand forecast
 - power supply options
 - alternative power supply development plans composed of a sequence of supply options
 - comparison of the costs of meeting forecast power demand from each of the power supply development plans (incl. power plant construction and operating costs and the environmental and health costs related to these activities)
 - sensitivity analysis of the results of the evaluation to changes in assumptions about key planning variables.

The Options Study concluded that Kosovo needs a mix of renewable and thermal (lignite) power generation capacity to meet its base load and peak load.

3. The Options Study presents a preliminary evaluation of a project to build 600 MW (2x300 MW generating units) of new lignite-fuelled power generating capacity (the proposed Kosova e Re Power Plant or KRPP), rehabilitate the existing Kosovo B generating plant, and open the new Sibovc lignite mine (collectively called "Kosovo Power Project"). Importantly, the existing Kosovo A power plant would be closed in conjunction with this project.

4. In January 2012, the following paper was also published about the Kosovo Power Project: "Reevaluating Kosovo's Least Cost Electricity Option" by B.C.Buckheit, prepared on behalf of the Sierra Club and the Kosovar Institute for Development Policy (INDEP) (referred to as "the Sierra Club/INDEP Report"). The Sierra Club/INDEP Report comments on two separate documents: the Expert Panel's Terms of Reference and the Options Study. The Expert Panel report was issued in January, 2012, in English and Albanian languages and was discussed by the Panel with civil society in Pristina in August 2011 and February 2012. Because a Terms of Reference for a study is not comparable to a fully scoped study, this note only responds to various points raised in the Sierra Club/INDEP Report about the Options Study.

Responses to Sierra Club/INDEP Comments on the Options Study

5. **Summary of the Sierra Report Study Recommendations.** The Sierra Club/INDEP Report concludes that the Options Study:

- a. “Fails to demonstrate the need for a new base load coal plant” and recommends instead that Kosovo meet future demand growth through reductions in technical and non-technical losses, through improvements in energy efficiency, and by investing in generation intended to serve peak load on the Kosovo power system. This recommendation is put forth as an alternative to the KRPP base load plant recommended in the Power Option study.
- b. “Fails to analyze the impact of developing KRPP on end-user tariffs or on Kosovo’s economy.”

Many of the Sierra Club/INDEP Report comments concern the amount and type of new capacity proposed by the Options Study. These comments question whether new coal-fired, gas-fired, or renewable power capacity should be added and whether capacity suited to meeting base load or peak load is needed. Separate responses to the comments about the magnitude of capacity needed, the fuel used, and the portion of the load shape served most economically by a new plant, are given in the following paragraphs below. The remaining responses deal with the tariff issue and with other comments in the Sierra Club/INDEP Report.

6. **Magnitude of new capacity needed.** The Sierra Club/INDEP Report asserts in many places that the Options Study concludes that more than 1,200MW of base load generating capacity should be brought online before other measures to balance future supply with demand. This assertion is incorrect. The only new baseload generating capacity proposed by the Options Study is the 600MW KRPP. About 700 MW of renewables included in the Options Study are either peaking (Zhur hydropower) plant, seasonal small hydropower plants, or intermittent renewables. If the Sierra Club/INDEP Report includes the reentry into service of the rehabilitated Kosovo B plant in its total of 1,200MW new base load capacity, this would ignore the obvious fact that the net addition to this capacity is zero (in fact a small reduction since the rehabilitated capacity is a little less than the rated capacity of the existing plant). The Options Study proposes the installation of some new renewables capacity and the initiation of loss reduction measures before KRPP enters service.

The demand-supply analysis used by the Sierra Club/INDEP Report to make its case is incorrect. It compares demand in 2010 in terms of the 2010 load curve provided in the Options Study, with the amount of new supply capacity proposed by the Options Study to come online gradually during the 2015-2025 time period. The Sierra Club/INDEP Report therefore does not compare like with like, because it does not recognize the considerable changes in both demand and supply that are projected to occur between 2010 and 2025. Demand will grow and supply will change as Kosovo A is retired and the output of Kosovo B is temporarily scaled back during plant rehabilitation. A correct analysis of the need for new generating capacity must take account of these changes by comparing demand and supply in the same year and for each year over the

planning period. The Options Study does this through simulated hourly dispatch of demand and available supply.

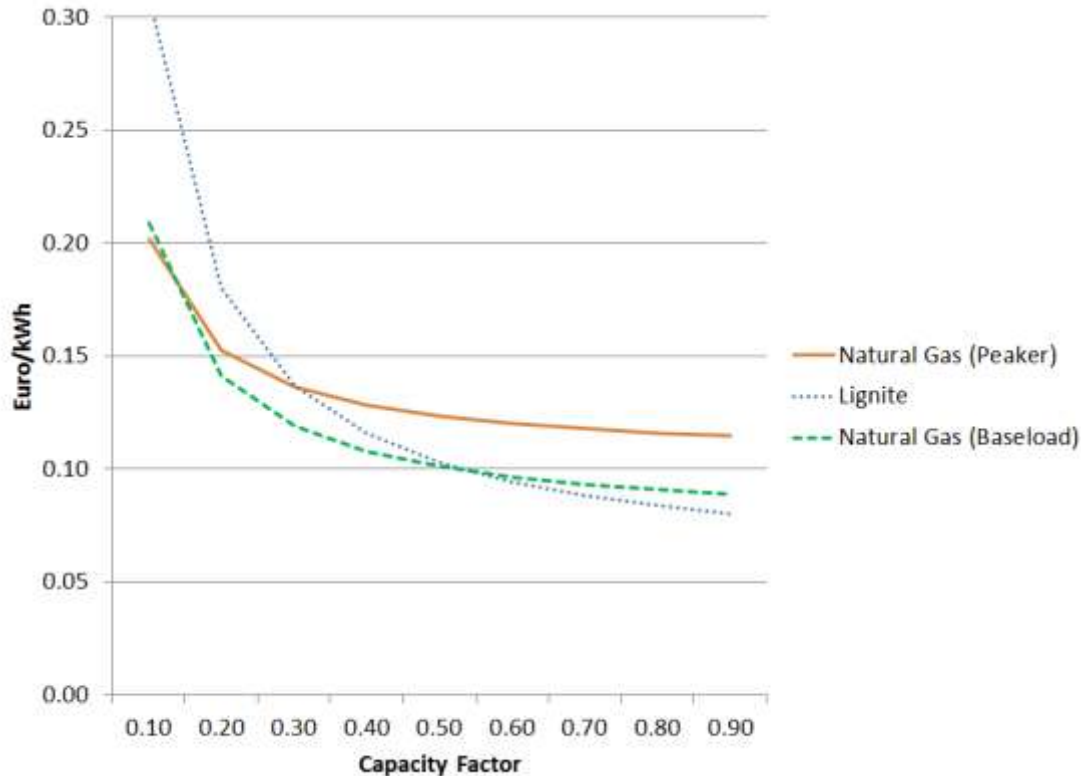
7. **Need for new base load or peaking capacity.** The Sierra Club/INDEP Report questions the need for new capacity to meet base load, recommending instead that Kosovo develop capacity to meet its peak loads. The Options Study, in contrast, finds that Kosovo needs new capacity to meet **both** base load and peak demand in the future.¹ This is provided by a mix of thermal energy, renewables, reductions in losses, and improvements in energy efficiency (referred to in the Options Study as the Lignite+RE plan). The Options Study assumes that the 300 MW Zhur Hydropower Plant and imports will be used to meet peak demand, as may some of the non-dispatchable renewables (small hydro or wind). The Sierra Club/INDEP Report does not address how Kosovo will meet its substantial intermediate load, instead erroneously presenting Kosovo B and KRPP as alternatives for meeting the base load. In fact, both plants are needed to meet the base load plus intermediate load. Kosovo has no reasonable alternatives to using this combination of plants for meeting these loads with sensible plant management.² The Options Study's assumptions about renewables are already aggressive, given what is known (and summarized in the Options Study) about the economic viability of different types of renewables in Kosovo, and firm import capacity is not likely to be readily available, given the tight power supply in the region.

8. **Need for a new lignite plant instead of a gas plant.** The Sierra Club/INDEP Report also suggests that a gas plant could be used to serve peak load in Kosovo. Gas peaking plants have lower capital costs than gas base load plants, but higher fuel costs per unit of electricity produced when this capacity is operated above certain low capacity utilization levels (e.g., below 10%).

¹ Plants used to meet peak demand have different cost and operational characteristics from plants used to meet base load. Plants used to meet peak demand typically have higher operating costs (fuel and non-fuel) and lower fixed costs (primarily, construction costs) than plants used to meet base load demand. It is also easier to adjust the output of so-called peaking plants to wide variations in demand. In practice, all types of plants (base load and peaking plants) are used to meet peak demand, but the peaking plants can more rapidly and cost-effectively be scaled up and down to meet hourly fluctuations in demand.

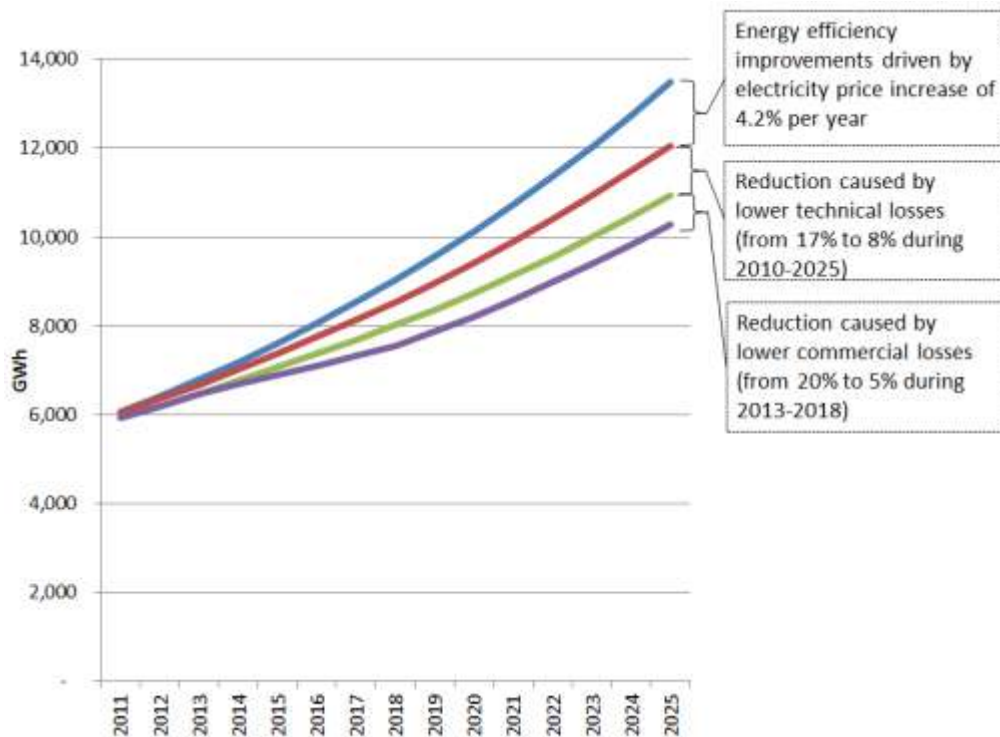
² In actual power system operation, unnecessary cycling of coal units will be avoided by taking units out of service, especially during period of low demand, and taking the opportunity to carry out scheduled maintenance.

The figure below compares the cost (including environmental externalities) of an open cycle gas peaking plant to those of the gas plant and lignite plant used in the Options Study.³



9. Need to reduce losses and improve energy efficiency. The Sierra Club/INDEP Report recommends that reducing technical and non-technical losses, and improving energy efficiency, should be made priorities. This agrees with the approach in the Options Study. The demand forecast in the Options Study assumes reductions in technical and non-technical losses. Technical losses are assumed to reduce from 17% to 8% of net energy generation by 2025. Non-technical losses are assumed to reduce from 20% in 2013 to 5% in 2018. The Options Study also assumes improvements in energy efficiency, driven by a real increase in the tariff of 4.2 percent per year. The figure below shows the magnitudes in improvements in energy efficiency and reductions in losses assumed relative to the Options Study's base case demand forecast (the bottom, purple line). The Sierra Club/INDEP Report asserts that the reduction in commercial losses assumed by the Options Study is more aggressive than is realistic, and that the reduction in technical losses is insufficiently aggressive, but it does not provide evidence to support these assertions.

³ The gas plant is assumed to have 38% efficiency, capital costs of €575/kW, fixed O&M of €6.9/kw-year, and variable (non-fuel) operating and maintenance expenses of €0.075/kWh. Fuel purchase costs are assumed to be the same as for the gas plant in the Power Supply Options Study. The figure shows that the levelized energy cost of the gas peaking plant is higher than for the gas base load plant if it were to be used at capacity factors above 10%.



10. **Effect of the tariff increase on end-users and Kosovo's economy.** The Sierra Club/INDEP Report asserts that: (a) the Options Study underestimates the required increase in Kosovo's electricity tariffs to finance the costs of developing KRPP and (b) the Options Study assumes that the tariff increase has already been increased to fund this project. The first of these assertions arises from confusion between economic and financial analysis⁴ and the second assertion is incorrect. In fact, the Options Study did not address the question of tariffs at all, because it undertakes an economic analysis and does not deal with financial matters such as electricity tariffs. Moreover, the Options Study certainly did not assume that this tariff has already been increased to fund this project. The Options Study did estimate the price for electricity that would cover the economic cost of increasing long-term power supply capacity to meet the forecast growth in power demand, but only for the purpose of deriving an economically efficient level of power demand on which to plan the expansion of Kosovo's power supply capacity. The impact of the project on tariffs will form part of the project appraisal process within the World Bank, which is being planned. However, because the lignite plant has the lowest **economic** cost of all the thermal generating options analyzed by the Options Study (including environmental externality costs that are part of economic analysis only, not

⁴ Economic analysis is concerned with the costs of a particular generation option to a country's economy or society as a whole. Financial costs are concerned with the costs to investors (which investors will pass on to customers).

financial), with similar financing terms, the lignite option will also require the lowest **financial** increase in electricity tariffs out of the thermal options.

11. **Other recommendations of the Sierra Club/INDEP Report:** The Sierra Club/INDEP Report further recommends that Kosovo B should be given dispatch priority over whatever new plants are built (criticizing the Options Study for assuming that the new lignite plant would be dispatched before Kosovo B). This recommendation means running more expensive, more polluting plants in favor of less expensive, cleaner ones. Such a recommendation cannot be reasonably justified for operational reasons, as well as for environmental/human health reasons. Commonly accepted industry practice is to dispatch the units with the lowest variable operating costs (sum of fuel cost and Operating and Maintenance cost per unit of energy generated).

Responses to the Sierra Club/INDEP Report's Additional Concerns

The Sierra Club/INDEP Report raised some additional concerns about the omission of the cost of opening a new mine in the Options Study, stressed water supply and its impact on agriculture, and resettlement. These issues are clarified below.

Cost of new mine. The cost of opening and operating a new mine for meeting the fuel needs of a new 600 MW power plant, rehabilitated Kosovo B, and Kosovo A for its remaining life is reflected in the cost of lignite (€10.5/ton) that is used in the Power Options Study⁵.

Water supply. Although KRPP is expected to increase water consumption in the region, there is currently sufficient capacity in water supply to the region, in particular from the Iber-Lepenc canal to provide water to KRPP and all other consumers, including the supply of drinking water⁶. Improvement to the Iber-Lepenc canal system would help reduce leakages from and increase supply for all users. To support future provision of water to the area for all water needs, the World Bank will prepare additional investment projects. Such investments have been included in the Country Assistance Strategy for Kosovo for 2012-15.

The Environmental and Social Impact Assessment (ESIA) for the proposed project will examine the water resources and needs, assess possible current and future risks associated with the KPP's water consumption, and identify actions and investments that need to be made to eliminate or

⁵ Table 4.1 of "Development and Evaluation of Power Supply Options for Kosovo" December 2011

⁶ "Water Supply from the Iber-Lepenc Hydro System for the proposed Kosovo C Power Plant" COWI and others 2007. The study showed that there was enough water available for the new 2000 MW power plant, increase in sown area from 650 ha to 10,000 ha, and for industrial and domestic users. Please note that the 2007 study assumed a 2000 MW Kosovo C, while the proposed capacity is only 600 MW.

mitigate these risks, if any. An important requirement of the ESIA is that all stakeholders, including the local population, will have the opportunity to voice concerns and request that specific issues be covered in the ESIA and to discuss draft results and mitigation actions to assess whether these are acceptable.

Resettlement. Development of the KPP will require, over time, the relocation of people primarily from the new lignite mine concession area in Sibovc. The new mining concession, which forms part of the KPP, is being developed to provide coal only to KRPP (600 MW) and Kosovo B, and to Kosovo A for the remainder of its life span. However, the new concession area covers only a part of the large reserves found in Sibovc. No household reported earning income from agriculture though some used it as a complementary activity. Currently only a part of the Shala neighborhood would require relocation. However, during consultations the members of the Shala community expressed their desire to be relocated together, as one social unit. Responding to the community's wish, the Resettlement Action Plan has been prepared for the entire Shala neighborhood, which will relocate to the proposed site at Shkabaj village.

This resettlement is being carried out in conformity with the Kosovo Resettlement Policy Framework and the applicable World Bank requirements. In preparing the RAP, the Shala community was widely consulted and involved in the design of the resettlement, with a focus on achieving a satisfactory and sustainable relocation. The community supports the identified resettlement area, which is in a good location and close to the main highway to Prishtina. At present, work is being conducted by the GoK to prepare the resettlement site. Housing plots are being developed and will be provided with services (access roads, water, electricity, etc.). Most of the people moving from Shala have chosen to build their own houses in the resettlement area. Government is committed to provide assistance for lodging and subsistence to those relocating during the interval between leaving Shala and moving into new housing at the resettlement area. The MoESP, as the implementing agency, provides information on implementation progress through an on-going consultation process with affected parties and municipal officials.

12. **Conclusion.** We agree with the Sierra Club/INDEP Report that technical and non-technical losses should be reduced and end-use energy efficiency increased to reduce the required amount of new power generation capacity and the environmental impact of power generation. These priorities are reflected in the Options Study. We emphasize that the Options Study presents an economic analysis, rather than a financial analysis that would be carried out as a part of the World Bank's appraisal of the proposed project. Future financial tariffs will depend on the terms for construction of KRPP offered under competitive bidding which depend partly on the financing terms that investors are able to obtain for these generation investments, as well as on the pace of efficiency improvements, loss reduction, and network improvements that will be included in the power suppliers' rate base by the energy regulator, and demand-side measures implemented by the distribution and supply licensee.

ANNEX 7. COMPARATIVE EVALUATION OF THE BANK'S OPTION STUDY WITH RAEI REPORT

Kosovo's Energy Options: A Comparison of Two Recently Published Reports

Background

1. In December 2011, the World Bank issued a study entitled "[Development and Evaluation of Power Supply Options for Kosovo: A Background Paper](#)." This "Power Options Study" reviewed a variety of previous studies commissioned by the Government of Kosovo, the power sector entities, the World Bank, and other donors. Many of these studies considered a variety of alternatives to a new, large lignite-fuelled power plant that the Government of Kosovo is planning to build. However, a systematic, consolidated comparison and evaluation of the costs of energy alternatives had not yet been presented.

2. The Power Options Study provides this evaluation by covering the subjects necessary to any evaluation of a power generation project:

- power demand forecast
- power supply options
- alternative power supply development plans composed of a sequence of supply options
- comparison of the costs of meeting forecast power demand from each of the power supply development plans (incl. power plant construction and operating costs and the environmental and health costs related to these activities)
- sensitivity analysis of the results of the evaluation to changes in assumptions about key planning variables.

The Power Options Study concluded that Kosovo needs a mix of renewable and thermal (lignite) power generation capacity to meet its baseload and peak demand.

3. The Power Options Study presents a preliminary evaluation of a project to build 600 MW (2x300 MW generating units) of new lignite-fuelled power generating capacity (the proposed Kosova e Re Power Plant or KRPP), rehabilitate the existing Kosovo B generating plant, and open the new Sibovc lignite mine (collectively called "Kosovo Power Project"). Importantly, the existing Kosovo A power plant would be closed in conjunction with this project.

4. In January 2012, the following papers were also published about the Kosovo Power Project:

- "Sustainable Energy Options for Kosovo" by The Renewable and Appropriate Energy Laboratory, University of California, Berkeley, January 19, 2012 ("RAEL Report"); and
- Response dated January 31, 2012, from Dr. Dan Kammen et al to the World Bank comments dated January 26, 2012, on the RAEL Report.

5. Draft versions of the Power Options Study were shared by the World Bank with RAEL. The RAEL Report covers similar ground to the Power Options Study without referring to the latter document. This comparison focuses on the technical and economic assumptions and approaches to power capacity development used in the Power Options Study and RAEL Report.

Detailed Comparison with the RAEL Report

6. **Improvements to efficiency of power supply and energy use.** The RAEL Report and the Power Options Study agree on the need to reduce the excessive energy losses (technical and non-technical) and to improve energy efficiency throughout the Kosovo power system (power supply, transmission, distribution and end-use). Technical losses are projected to decline from 14% to 11% of total consumption in the RAEL Report and from 16.6% to 8% of gross energy supply in the Power

Options Study. Non-technical losses are projected to decline from 17% to 1% of total consumption in the RAEL Report and from 20% to 5% of gross energy supply in the Power Options Study.

7. **Power demand forecasts.** The RAEL Report adopts the base case demand scenario prepared by KOSTT - the Kosovo Electricity Transmission System and Market Operator. The Power Options Study models power demand in terms of projections of the power price and the national GDP, thereby deriving a forecast of demand at an electricity price that reflects the economic cost of meeting the demand. Both studies incorporate the projected reduction in losses in their forecasts of the required amount of energy to meet demand. Nevertheless, the difference between these demand forecasts is not large. For example, for the respective base case forecasts in 2020, the RAEL Report projects demand at 7,531 GWh, while the Power Options Study forecasts demand of 8,208 GWh, which is 8.25% higher.

8. **Projections of the power and energy demand-supply balance. The RAEL Report does not take into account peak demand forecasts (power capacity) to determine new power plant requirements; instead, the analysis is limited to energy requirements.** This is an important issue because the RAEL Report does not follow well-established industry practices. In the power sector, the need for new power plants is determined by comparing the peak demand forecasts to the available capacity (during peak demand time). This is a fundamental requirement deriving from the need of the power company to guarantee energy supply at all times. In fact, the available capacity during peak demand time should be higher than the maximum demand by a reserve margin, usually 15-25% depending on the size of the power system and the level of interconnection with neighboring power systems. Without this modeling, a power supply plan could lead to power shortages by failing to add new generation capacity when needed by the power system such as during a cold winter. Based on communication with the RAEL Report team, it is our understanding that capacity analysis during peak demand was not carried out. The Power Supply Options study included peak demand analysis but it did not add any reserve margin. Addition of the reserve margin would increase the need for more new power capacity.

9. **Length of period covered by projected demand-supply balance.** The RAEL Report projects the demand-supply balance to the year 2020, whereas the Power Options Study projects this balance further to 2025. The significance of this difference lies in the estimated total power supply capacity that can be met without adding new power units to the system. RAEL Report scenarios show that Kosovo's renewable energy options would be exhausted and additional capacity would be needed for meeting growth in power demand beyond 2020. This additional capacity would need to use lignite unless a presently unavailable or unproven supply resource, such as natural gas or geothermal, emerges in the near future. The Power Options Study extended its analysis to 2025 to address this issue and to indicate the expected build-up in capacity utilization of the Kosovo B and C plants.

10. **Development of indigenous renewable energy resources.** Both the RAEL Report and the Power Options Study consider that Kosovo's renewable energy resources ("renewables") are important options for developing power supply capacity that should be exploited to their full technical and economic potential. Their assumptions about the technically exploitable potential of these resources are of a similar magnitude, as shown in the table below.

Comparison of Potential Power Capacities from Kosovo's Renewable Energy Resources (MW)

Renewables Resource	Power Options Study	RAEL Report	
	Base Case	Base Case	Low Carbon Case
Small Hydro	60	182	182
Wind	257	141	281
Solar PV	0	0.8	8
Biomass	18	16.5	165
Biogas	67	0	0
Total	402	340.3	636

11. **Attribution of firm supply capacity to power generated from renewables.** The availability of power generated from renewables is uncertain at any point in time because the sun, wind, and rain (for hydro) are intermittent and variable. Therefore, the amount of available power output that can meet demand on the power system ('firm' capacity) is substantially less than the amount of generating capacity installed to exploit these resources. The Power Options Study uses proportions of installed capacity that are treated as firm power supply (specifically 100% for medium hydropower with storage capacity, 53% for small hydropower without storage capacity, and 25% for windpower). Though it is not clearly stated but it seems the RAEL Report attributes 100% of the installed capacity to firm capacity which would probably lead to power shortages if used for determining the installed amount of new power generation capacity.

12. **Installed capacity at the KRPP.** Although the reports use different installed capacities at the KRPP plant, they draw similar conclusions about the required capacity at this plant. The RAEL Report evaluates the KRPP with 1000 MW (2X 300MW Units and 1X 400 MW Unit), whereas the Power Options Study evaluates the Kosovo e Re power plant with 600 MW (2X 300MW Units). The RAEL Report concludes that very little power is required from the 400 MW Unit in its base case energy scenario. The Power Options Study finds that the demand-supply balance in its base case scenario is acceptable with the two 300 MW units at the KRPP plant.

13. **Kosovo B rehabilitation.** Under the European Commission's Large Combustion Plant Directive, the Kosovo B units have to be retrofitted with environmental controls by 2017. The Power Options Study assumes that one Kosovo B unit will be off-line during 2017 (after the two new units for KRPP come on line) and the second Kosovo B unit will be off-line during 2018, during which the units will be fitted with equipment to reduce their emissions, improve their efficiency, and extend their working lives. The RAEL Report assumes that the Kosovo B units will be rehabilitated and its capacity and output increased without any outage and reduction during the rehabilitation period.

14. **The projected utilization factors for Kosovo B and KRPP differ substantially between the two studies.** The RAEL Report assumes that the unrehabilitated Kosovo B units are dispatched before the KRPP units to meet the demand on the power system. The Power Options Study assumes that the KRPP units are dispatched before Kosovo B units because the KRPP units have a lower unit variable operating cost (sum of fuel cost and Operating and Maintenance cost per unit of energy generated) than the Kosovo B units. The Power Options Study assumption follows the well-established industry order of dispatching power generating units. The difference in dispatch order is significant because it means that a much higher energy output was attributed to Kosovo B and a much lower output was attributed to the

KRPP units in the RAEL Report than in the Power Options Study. The dispatch order in the RAEL Report overestimates the cost of lignite-fuelled power generation from the Kosovo B and C plants.

15. **Energy conversion efficiency and emission rates for KRPP.** The RAEL Report assumes that the KRPP units will have the same emission rates and plant efficiency as the Kosovo B units. With currently available technology, KRPP units would be required to achieve at least 38% or higher efficiency while the Kosovo B units are 30% efficient. Also, KRPP will comply with the European Union Industrial Emissions Directive, which specifies very low emission levels (150 mg/Nm³ SO₂; 150 mg/Nm³ NO_x and 10 mg/Nm³ particulates). The emission rates for the Kosovo B units are presently much higher than these levels, although after rehabilitation they also will comply with EU Directive. The RAEL Report's assumptions therefore overstate the fuel and emission costs of KRPP.

16. **Carbon emission rates from lignite combustion differ substantially.** The RAEL Report uses much higher carbon emissions from the Kosovo plants and correspondingly higher carbon penalties for burning lignite than the levels used in the Power Options Study. This is because the RAEL Report assumes that 20% by weight of lignite is converted to "unburned hydrocarbons," whereas the Power Options Study considers that unburned carbon would form less than 1% of the fuel by weight. Because Kosovo lignite contains about 24 % of carbon by weight, the RAEL Report's assumption implies that most of the carbon is not burnt, which is not correct. The high level used in the RAEL Report cannot realistically be reconciled with the physical properties of lignite.¹ Moreover, the RAEL Report converts all pollutants to CO₂-equivalent even though they are not greenhouse gases, with the result that hydrocarbons, NO_x and particulates contribute 87 % of the total CO₂-equivalent emissions and the actual CO₂ from the plant accounts for only 13% of the total CO₂-equivalent emissions in the report.

17. **Sulfur emission rates.** Both Kosovo B and C will be equipped with SO₂ control devices that remove more than 90% of the sulfur in the plant emissions. However, the RAEL Report assumes that 67% of the sulfur in Kosovo lignite combusted in the KRPP units would become particulate matter. This is excessive because most of this sulfur would be removed as solid by-products.²

18. **Levelized energy cost for KRPP.** The two studies use similar assumptions for KRPP power plant³, but they arrive at substantially different estimates of the levelized energy cost (LEC) for this plant.⁴ The RAEL Report uses the U.S. DOE/Energy Information Administration (E.I.A.)'s published estimate of the direct cost of power from this type of lignite-fuelled plant under conditions in the U.S.A., whereas the Power Options Study built up the overall LEC from detailed assumptions about construction and operating costs under Kosovo conditions. Yet the RAEL Report estimates this LEC to be

¹ This is because Kosovo lignite has 24% carbon by weight, so the Berkeley Report implies that most of the carbon becomes "unburned hydrocarbons". But well-designed and operated coal-fired power plants do not emit any "unburned hydrocarbons". The only unburned substance is a small amount of CO, which can be reduced or eliminated with good combustion system tuning and operation.

² The sulfur in lignite reacts with calcium oxide (CaO) and magnesium oxide (MgO) in the ash to form calcium sulphate (CaSO₄) and magnesium sulphate (MgSO₄).

³ These assumptions cover unit construction cost, plant emission standards, plant working life, cost of capital, O&M costs, fuel cost and energy conversion efficiency.

⁴ Levelized energy cost (LEC) is the sum of all project costs per unit of electricity generated under a project, over the lifetime of the supply capacity provided under the project. Costs include costs that are internal to the project - construction costs, O&M costs, and the cost of capital, as well as costs that are external to the project - particularly health and environmental costs imposed on society from the project. Annual costs over the project lifetime are expressed in economic terms and discounted to a present value (PV), and annual amounts of energy produced under the project are discounted to a present value. LEC is defined as the ratio of the PV costs to the PV energy.

\$94.8/MWh whereas the Power Options Study estimates it to be \$63.56/MWh. The US\$94.8/MWh estimate of the LEC is not compatible with its input assumptions of US\$2600/kW of overnight construction cost. The RAEL Report's explanation for this difference is incomplete.

19. Treatment of externality costs. Both studies incorporate the costs of externalities into their evaluations, including both local externalities – health and environmental costs imposed on the local population from a power plant – and global externalities in terms of the cost of carbon emissions. The RAEL Report draws on studies of externality costs from the U.S.A. and South Africa as benchmarks for externality costs in Kosovo, despite the large differences in socio-economic conditions among these countries. Consequently, the RAEL Report considers that the full socio-economic cost of power from the KRPP plant could lie within the range of 200% to 400% of the direct project costs. The Power Options Study considers that the full socio-economic costs of power from KRPP are equal to 163% of the direct project costs, in present value terms. Added to the US\$94.8/MWh (US cents 9.5/kWh) of LEC without externalities, the RAEL Report implies that the full socio-economic cost would amount to US cents 30 to 50 per kWh.

20. Methodology for the economic evaluation of power supply options. The present value of the costs of these plans are computed and used as the basis for comparing the plans. The two studies use the same types of renewables for supply options but the Power Options Study considers three fossil fuels (lignite, natural gas, and fuel oil) as supply options whereas the RAEL Report considers only lignite. The RAEL Report compares power supply options⁵ only on the basis of LEC, whereas the Power Options Study uses LEC as a means of screening power supply options. The Power Options Study performs its main evaluation by formulating three different power development plans from a combination of supply options developed in sequence over time to meet forecast demand, one of which contains the KRPP project with renewables; the other two plans are based on natural gas and fuel oil, respectively, with renewables. This evaluation approach in the Power Options Study is the standard international method.

⁵ These constitute ways to generate power from each type of energy resource (lignite, natural gas, hydropower, windpower, etc).

At-A-Glance Comparison with the RAEL Report

	RAEL REPORT	OPTIONS STUDY
Least cost supply plan (MW)	RAEL study considers levelized energy costs of individual plants but does not analyze the least-cost plan	Considers both the levelized energy costs of candidate plants for selection of plants and capacities and
Planning period	Until 2020	Until 2025
Rehabilitation of Kosovo B	Assumes Kosovo B can be rehabilitated without any outage and reduction in output.	Assumes Kosovo B will be rehabilitated, one Unit at a time during 2017 and 2018, each Unit being out of operation for eight months.
Adequacy of capacity to meet peak demand	Did not consider peak demand (capacity) requirements, only energy balance	System must have enough capacity to serve peak demand (such as in winter); additional capacity to meet obligations for reserve capacity, if added, would require additional capacity of 10-15%
Externalities	Assumes a carbon cost of €11.25/MWh in calculating LEC. Then assumes an additional 200-400% increase to account for local and global externalities, based on studies in the US and South Africa.	Uses EIA forecasts of carbon prices, equal to average €27.65/MWh. Analysis of local externalities in ECOSENSE dispersion model, based on data from Extern-E (European data). Total externalities costs increase LEC by 163%.

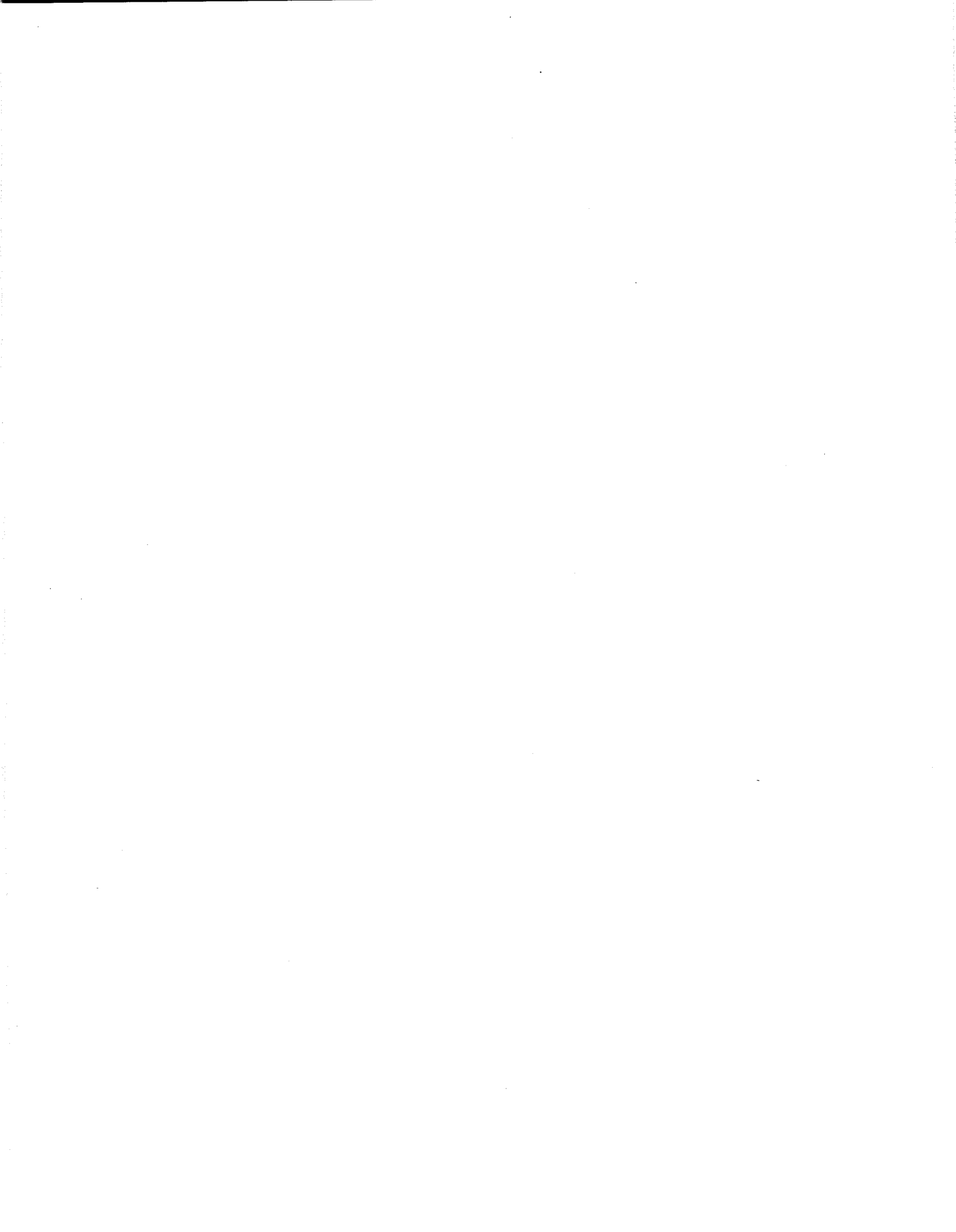
ANNEX 8. CHRONOLOGY OF THE BANK'S ENGAGEMENT IN THE ENERGY SECTOR IN KOSOVO

Approval Date	Id	Project name	Objectives	Total IDA	Env. Category
Closed					
25-Apr-2001	P070046	Energy Sector Technical Assistance Project	Assist in the development of satisfactory long-term plans for the economically efficient reconstruction, rehabilitation and restructuring of the power, lignite, district heating and petroleum sectors and development of a natural gas sector	0	C
17-Jun-2003	P079019	Energy Sector Technical Assistance 2 Project	Assist in (i) developing capacity for a commercially sustainable exchange of power with the regional system, and optimizing utilization of existing generation capacity through economic dispatch; and (ii) developing a framework for attracting private sector investment in the energy sector	1.5	C
29-Mar-2005	P088865	Energy Sector Technical Assistance 3 Project	The project's primary objectives are (i) to support Kosovo's integration with the regional energy market through assistance with implementation of its immediate obligations under the Athens Memorandum namely the establishment of an independent Transmission and System Operator (TSO), development of a Grid Code, development of transmission and retail tariffs including subsidy mechanism, and institutional strengthening to participate in the market, and (ii) to develop a policy framework, guidelines, and institutional capacity for the utilization of Kosovo's mineral resources.	2.5	C
12-Oct-2006	P097635	Lignite Power Technical Assistance Project	The objectives are to: (a) help the Government strengthen the enabling policy, legal and regulatory frameworks conducive to new investments in the energy sector; and (b) assist the Government to attract qualified private investors to develop lignite mines and build new capacity for lignite thermal power generation, guided by high standards of environmental and social sustainability.	8.5	B
28-Jun-2007	P106580	LPTAP Additional Financing 1	The additional financing does not propose any changes to the original Project Development Objective, original project components, outcomes, design, or scope	2	B
09-Apr-2007	P093932	Kosovo: Study of Heat Market and Environmentally Clean Fuel Options		0	
Active					
13-Jun-2006	P096181	Energy Sector Cleanup and Land Reclamation Project	Objectives are: (a) address environmental legacy issues related to open dumping of ashes on land from KEK's Kosovo A thermal power plant; (b) enable KEK to free land for community development purposes currently taken by overburden material; and (c) initiate structural operations in KEK for continued clean-up and environmentally good practice mining operations.	5.5	
28-Jun-2007	P105870	Kosovo Energy Sector Clean-up of Gasification Site	Additional financing does not propose any changes to the development objectives to the original CLRP, The hazardous chemicals cleanup will be incorporated as Component E and will contribute to development objective (c).	5	
Pipeline					
25-Sep-2012	P131539	AF - CleanUp & Land Reclamation Project		3.2	
10-Dec-2013	P118287	Kosovo Power Project		50	

ANNEX 9. "KOSOVA E RE" POWER PROJECT TIMELINE

	Completion date of activity	Expected date for the completion of the activity	
		From	To
The Kosovo e Re Investors Conference	January 11, 2010		
Announcement of 4 prequalified bidders	March 5, 2010		
Issuance of Draft RfP	August 10, 2010		
Due Diligence	August 10, 2010		September 28, 2012
Receipt of Exceptions*			May, 2012
Receipt of Proposal from Bidders*			September 28, 2012
Evaluation of Bids*		September 28, 2012	November 15, 2012
Announcement of winning bidder*			November 15, 2012
Negotiation of legal agreements *		November 15, 2012	December 27, 2012
Execution of Project Agreement*			December 27, 2012
Financial close			July 1, 2013
Air Quality Monitoring		September 15, 2012	September 15, 2013
Start soil and water quality monitoring		September 15, 2012	February 1, 2012
Start of ESIA		October 2012	
Completion of ESIA			October 2013
Board Presentation			expected date 2014
* Because of delay in the privatization of electricity distribution it is likely that the proposed KPP transaction will also be delayed by one or two months.			

ANNEX 10. RESPONSES TO TECHNICAL ANNEX



Response to Technical Annex

No.	Claim (serial numbers in this column refer to the Technical Annex to the Request)	Response
1.	<p>IV (A). Environmental and Health Harms. Obiliq is one of the most polluted municipalities in Kosovo. The main source of pollution is the existing coal-burning power stations (Kosovo A and Kosovo B), along with heating and drying processes associated with coal production. The burning of coal releases toxic substances and dust into air and ground water, causing significant contamination of the surrounding environment. Despite deficiencies in pollution monitoring in the area, preliminary studies indicate that emissions levels and heavy metal contamination is concerning. In this context, replacing Kosovo A with a new power plant would significantly extend the time span during which this area would have to continue facing pollution from coal mining and combustion. Although both Kosovo B and the new plant will be more efficient than the existing plants, efficiency will also increase capacity, therefore it is unclear (absent strict pollution controls, which are as yet undecided) how much the project will result in diminished pollution overall. Due to the already fragile environmental conditions in this area, the cumulative impacts of the KPP are substantial.</p>	<p>Please see the response under Item 1, in Annex 1, which addresses this issue in some detail.</p> <p>Management would emphasize the following:</p> <ul style="list-style-type: none"> • An important objective of the proposed Kosovo Power Project (KPP) is to reduce environmental impacts and introduce high standards, including EU standards of compliance for KRPP. To comply with its obligations under the Energy Community Treaty, the Government of Kosovo intends to decommission Kosovo A, which is one of the largest point sources of pollution in Europe, and bring Kosovo B into compliance with EU standards by improving its operations and environmental performance. • The analysis available to date shows that implementation of the proposed KPP and closure/ decommissioning of Kosovo A will reduce emissions of particulate matter by at least 90 percent and sulfur and nitrogen oxides by over 70 percent. • Management agrees that the data concerning pollution in the area are deficient. The planned ESIA, to be prepared in consultation with the affected communities, will investigate the emissions and other environmental impacts of the proposed KPP including: (i) the reduction in impacts due to proposed decommissioning of Kosovo A; (ii) impacts likely to be caused by emissions from the proposed KRPP; (iii) the (reduced) impacts from proposed improvements to Kosovo B; (iv) impacts from the proposed further development and operation of the Sibovc South lignite mine; and (v) implications of the proposed KPP for air, soil and water quality and other environmental parameters such as noise levels. It will also examine any other impacts from the proposed KPP which could, directly or indirectly, impact people and the environment in the proposed Project area.
1(a)	<p>The proposed project will contribute significantly to the pollution in the area. While effects of pollution can be far ranging, the Obiliq municipality and the dense urban capital of Prishtina will be the most heavily impacted by the proposed project. The Requesters will suffer health risks arising from the construction and operation of both the proposed lignite power plants and the lignite mine. These harms include specific disease burdens caused by pollutants and industrial waste, nuisances caused by noise or dust from the operation of the coal mine and coal-fired</p>	<p>Please see the response above. Again, the ESIA will look at these impacts and mitigation strategies in specific detail.</p>

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	<p>power plants, and the effects of pollution on vulnerable populations, like children. The Sibofc coal mine and the operation of the Kosovo B and Kosovo C power plants will release toxic pollutants into the atmosphere, including particulate matter, sulfur dioxide, mercury, lead, heavy metals, oxides of nitrogen, carbon dioxide, and acid gases. These air pollutants cause damage to the nervous and circulatory systems. They also exacerbate existing health conditions, like asthma, prevalent in the populations living in the project area due to years of exposure to air pollution. Prishtina Children are also at risk from exposure to lead and mercury, which impair cognitive development, and the acid gases like hydrogen chloride, which cause lung damage.</p>	
1(b)	<p>The Requesters will also suffer harms from water and land pollution. Pollution of the water will occur from industrial materials including coal ash containing heavy metals, fly ash laced with mercury, wastewater from the washing of lignite coal containing selenium, and overflow or failure of impoundments storing “coal sludge,” a toxic waste product. Impoundments can fail, causing toxic floods of sludge that render rivers dead zones and contaminate ground water sources. The harm from this water pollution will be exacerbated because the riparian systems of the Kosovo Valley are already highly stressed. The impact of water and land pollution on farmers, who comprise 60% of the population in the affected area, will be particularly profound: farmers rely on agricultural land and water for crop cultivation (including commercial and subsistence farming), thus their livelihoods will be significantly affected by pollution. Food contamination from such pollution is also likely. Moreover, coal waste not only creates surface water contamination, it also pollutes soil and ground water.</p>	<p>Please see the response under Item 2 in Annex 1, which addresses the issue of water pollution.</p> <p>The proposed KPP would be required to comply with EU standards with respect to any potential source of waste and waste water.</p> <p>More detailed analysis of environmental impacts and the identification of additional control measures (if needed) will be addressed in the ESIA.</p>
2.	<p>IV (B). Labor Harms The proposed activities, particularly the proposed privatization of mine and plant operations, could adversely affect labor rights. In light of past experience with privatization in Kosovo, it is highly likely that this will harm the rights of Requesters to unionize, organize, and bargain collectively. Requesters are concerned that privatization will lead to job cuts, salary reductions, worsened working conditions, and create a situation in which legal procedures are neglected. The Bank has not sufficiently analyzed the dynamics of the labor market, job creation or unemployment. The Bank assumes that the mine and coal-fired power plants will create jobs, the wages of which will then spill over to the local economy. However, the Requesters are concerned that the jobs that are created will be either temporary, in the case of construction, or will not employ the local workforce without extensive and costly education and job training. The Bank has provided no analysis or accounting of the training necessary to ensure that the economic growth created by the new jobs is local and permanent. Furthermore, the Requesters are concerned that if employees are laid off as a result of the project, there will be no programs to help compensate them.</p>	<p>Please see the response under Item 7 in Annex 1, which addresses this issue.</p> <p>Management understands from the Government that the new private companies involved in mining and power generation will be required to retain all staff (who wish to continue to work) for a period of at least three years, on terms and conditions of employment substantially similar to those offered by KEK. After this three-year period, if the new company needs to make changes to its staffing, it will have to follow the applicable Kosovo labor laws.</p> <p>The Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures.</p> <p>The overall impact of the proposed KPP on the Kosovo economy of alleviating the energy constraint is likely to be significantly positive, spurring economic and job growth in</p>

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		the medium term. The long term impact on employment of the KPP is likely to be positive.
3.	<p>IV (C). Resettlement Harms. Coal mining and the operation of coal-fired power plants will require the resettlement of populations throughout the 150 km² area of the “New Mining Field” (NMF), assessed in the spatial plan for the KPP prepared under the LPTAP. Impacts resulting from involuntary resettlement will cause widespread harm to Requesters. Many Requesters expressed concern during consultations about the adequacy of the resettlement plans, and in particular about proper compensation for destroyed homes and impacts on their work and livelihoods. Physical and economic displacement will also harm subsistence farming in the region, and diminish the livelihoods earned from forest timber products and other secondary income streams. Resettlement will require compensation for agricultural families in the form of productive agriculture lands. However, there is significant doubt that sufficient fertile land exists for this purpose. Resettlement will also harm the social and cultural fabric of communities such as Hade, Leshkoshiq, Shipitulle, and Sibofc. Resettlement could also mean the destruction of important mosques, schools and historic monuments in the region.</p>	<p>Please see the response under Item 6 in Annex 1, which sets out information on resettlement issues in the proposed KPP area.</p> <p>Management notes that the overall NMF area covered by the Spatial Development Plan is much larger than the area expected to be concessioned in Sibovc South for the KPP-associated minefield. The Sibovc South mine field constitutes about 7 percent (about 10.5 km²) of the total NMF (see attached Map) and the entire proposed KPP site constitutes an additional area of about 6 percent of the NMF.</p> <p>In the event that the Bank decides to support the proposed KPP, the Bank will ensure that Bank policies and procedures are applied to any resettlement carried out in connection with the proposed KPP and will draw Government’s attention to the need to address the legitimate concerns of residents in the non-KPP portion of the NMF area.</p>
	Policy Violations	
4.	<p>V. POLICY VIOLATIONS. The studies and plans conducted through the LPTAP, and reviewed by the Expert Panel, do not meet Bank requirements for Category A projects, the classification for the KPP. If the KPP proceeds as planned, the Bank’s failure to comply with its policies will result in significant harms to the Requesters.</p> <p>V (A). OP 4.01 – Environmental Assessment. OP 4.01 “requires environmental assessments (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.” While the Bank has not made clear whether the SESA conducted under the LPTAP will serve as the Environmental Assessment for the KPP, at this stage it can only be assumed that this SESA, reviewed by the Expert Panel, is the sole document intended to meet the requirements of OP 4.01. Hence, the SESA is analyzed against the standards of OP 4.01. Further, because the nature of the project assessed by the SESA is a Category A project, it should be assessed against OP 4.01 standards for Category A projects.</p>	<p>Please see the response provided in Item 1, Annex 1.</p> <p>It is essential to note that the SESA is not the ESIA for the proposed KPP.</p> <p>Many of the allegations of policy violations arise from the Requesters’ mistaken assumption that the SESA is the sole document intended to satisfy the requirements of OP 4.01 with respect to environmental and social assessment of the proposed KPP. The SESA to which the Requesters refer was developed in 2008, and considered issues relating to the development of a different power generation plant with a capacity of 2000 MW (Kosovo C). Following further consideration and studies, the proposed Project is planned for a generation capacity of 600 MW, for which the ESIA will be prepared.</p> <p>The ESIA will be prepared in consultation with the affected communities and will take into account all relevant aspects of Kosovo’s own legislation, applicable policies of the World Bank Group, and relevant EU Directives. The draft Terms of Reference (TOR) for the ESIA have been prepared, and will be shared with the public for consultations, after approval by the Government and review by the Bank. The</p>

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		Government expects to hire independent consultants to start the process of ESIA preparation, which is expected to take 12 to 15 months to complete.
4.(a)	<p>There is a fundamental assumption in the SESA that construction of a new power plant (Kosovo C) and the shuttering of an outdated plant (Kosovo A) will be more efficient and hence better for the environment and the people of Kosovo. However, better efficiency would result in increased capacity, and without knowing pollution control measures, it is unclear to what extent overall pollution will diminish. Nevertheless, even if efficiency does result in a marginal improvement, and prospective harms are distinguished from existing ones, the assumption is flawed because of the SESA's failure to account for the full range of environmental impacts of the project. Replacing Kosovo A with Kosovo C will condemn an already heavily contaminated environment with significant health impacts to decades of the same harms that have led to its existing condition. Such prolonged exposure to those harms could cause long-lasting, and possibly irreversible, impacts to the area. It is therefore necessary that the Bank consider existing environmental conditions and assess the long-term cumulative effect of continuing lignite-based power generation.</p>	Please see response to Item 4 above.
5.	<p>The current SESA fails to meet the requirements of OP 4.01 in the following areas: inadequate consideration of environmental, health and social impacts; inadequate consideration of viable alternatives; and inadequate and unrepresentative consultations with affected communities. Thus, the Inspection Panel should find that the Bank must conduct a more comprehensive assessment that complies with the requirements of OP 4.01.</p> <p>V (A) (1). Consideration of Environmental, Health, and Social Impacts. The SESA did not adequately consider relevant environmental, health, and social impacts that would arise from the KPP. OP 4.01 requires evaluation of a "project's potential environmental risks and impacts." It also provides in relevant part that the "EA take into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects." Further, the assessment must examine ways of improving the project by "preventing, minimizing, mitigation, or compensating for adverse environmental impacts." The SESA notes in a number of instances that appropriate monitoring devices or data were not available to conduct certain assessments, thus conceding from the outset an inability to fully assess relevant impacts. Failures to adequately consider relevant impacts in the SESA include: air pollution; water and land pollution; unsustainable water usage; transboundary impacts; impacts to the workforce; agricultural impacts; and cumulative impacts.</p>	<p>Please see response to Item 4 above. The ESIA will consider and investigate issues raised by the Request.</p>
5 (a).	<p>a. Air Pollution. Operation of the lignite mine and power plants will result in the emission of toxic gases and particulates that have adverse effects on health. The current state of the environment is already very poor; the air is difficult to breathe,</p>	<p>Please see response to Item 4 above. The ESIA will consider and investigate issues raised by the Request. Management notes that the</p>

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	<p>and dust from emitted substances lines the ground throughout surrounding villages. The toxicological effects arising from exposure to emitted substances including fine particulates, carbon dioxide (CO₂), sulfur dioxide (SO₂), oxides of nitrogen (NO_x), acid gases, dioxins, mercury and other heavy metals, are significant and are discussed below. The Requesters are concerned about continued exposure to these pollutants because they already face significant health impacts from existing operations.</p> <p>In general, there is insufficient information on expected pollution controls and resulting emissions estimates, as well as data on air quality for the SESA to adequately assess the impacts of air pollution. With respect to emission levels, OP 4.01(6) presumes that in the absence of a “full and detailed justification for the levels and approaches chosen for the particular project or site[.]” the recommended limits in the Bank’s Environment, Health and Safety Guidelines (“EHS Guidelines”) apply to Bank projects. For “[p]rojects with significant sources of air emissions,” the Bank’s EHS Guidelines recommend emissions levels of particulates, NO₂, and SO₂ lower than 150, 200, and 125 µg/m³, respectively. The SESA does not identify what specific emission controls would be implemented at the refurbished Kosovo B and Kosovo C, and thus does not adequately assess what emission levels are expected. Without this information it is impossible to assess whether the project would comply with EHS guidelines or OP 4.01 more generally. Furthermore, while the concentration of the acid gases may be effectively reduced through systematic use of scrubbers, the Bank’s SESA has not provided a detailed plan to show how Kosovo, with its limited resources and chronic history of underinvestment in maintenance of infrastructure, is equipped to control emissions of acid gases over the long term. Indeed, the Requesters have already expressed concerns that existing filters in Kosovo B are switched off at convenient moments to reduce costs, and that operating more advanced scrubbers will result in water shortages in the area. The Bank must demonstrate how pollution controls would be managed to alleviate these concerns. The Bank must also assess whether ambient air quality will be within accepted limits, current monitoring data on air quality is inadequate and needs to be updated.</p> <p>Noting that the impact of air pollution cannot be fully assessed without knowing the pollution controls and emission levels, a few examples of gaps in data and impacts of air pollution are highlighted below. At the outset, the SESA acknowledges that air quality data is unavailable and that monitoring systems need significant capacity development. In assessing the impact of fine particulates, the SESA notes that the main component of emissions is generated by the mines, but that data on air emissions inside the mines is not available and thus cannot be assessed. Additionally, the SESA does not detail mechanisms that will ensure that monitoring devices to measure emissions levels function as designed over the life of the project. Inefficient removal processes and inadequate monitoring device create uncertainty as to the amount of particulates being</p>	<p>Environmental Management Plan (EMP) for the proposed Project will include environmental mitigation measures; monitoring requirements; and an assessment of the institutional capacity to undertake these tasks. The EMP will set out the responsibilities for each of these functions.</p>

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	<p>emitted and therefore are cause for concern. The World Health Organization has reported a link between fine particulates and respiratory illnesses such as asthma, reduced lung function, and higher incidence of bronchial infections in children. Due to their small sizes, fine particulates easily enter the bloodstream from the lung, and may result in inflammation of the heart and cardiac system. These particulates are also believed to exacerbate the development of lung cancer. Pneumoconiosis or black lung disease is also a serious problem, particularly for mine workers. Without reliable information on the emissions and the related health impacts, it is not possible to adequately consider these impacts.</p> <p>With respect to sulfur dioxide the SESA fails to adequately detail how sulfur-containing compounds will be effectively removed from the power plants' gas flues. The SESA recommends that a feasibility study be completed for updating of Kosovo B's electrostatic precipitators, which means that further analysis is required to evaluate what abatement measures can be implemented, including any additional impacts. Additionally, as noted above, the SESA fails to adequately detail what, if any, mitigation technologies will be used at Kosovo C. The SESA assumes that Kosovo C will have mitigation technology installed; yet, the SESA also states that "SO₂ could increase from present 13.8 Mt/y to 19.1 Mt/y," possibly due to a capacity increase. Thus, it is unclear what SO₂ emission levels are likely to be. Health impacts of SO₂ pollution, which include coughing, wheezing, inflammation of breathing passages, and in some cases, can destabilize heart rhythms, are also inadequately discussed in the SESA. The Bank's SESA also fails to adequately consider how nitrogen-containing compounds will be removed from the new and existing power plants' gas flues. Inhalation of NO_x results in decreased lung function and respiratory diseases in children. Children, the elderly and asthmatic patients are most at risk of harm. There is also insufficient consideration of the health impacts of other pollutants, such as mercury, dioxins, polycyclic aromatic hydrocarbons ("PAHs"), and acid gases.</p>	
5(b).	<p>V (A) (1)(b). Water and Land Pollution. The Bank's SESA overlooked the impact of heavy metal contaminants (principally mercury and lead) on surface and groundwater sources. For example, mercury emissions can contaminate surface water, and effluent containing mercury can contaminate soil and ground water. This can result in damage to the environment including elevated levels of heavy metals and PAHs in soil and ground water. The contaminated water may become non-potable and unsafe for recreational purposes. Requesters state that surface mining has already contaminated wells in the surrounding area causing health problems for local communities, for example in the village of Cerna Vodica. In addition, preliminary results from the geochemical studies in the SESA showed that concentrations of mercury and nickel in soil already exceed threshold safety levels. An adequate assessment of heavy metal pollution from emissions and effluent and measures that would minimize or mitigate impacts is therefore necessary to comply with Bank policy. However, the Bank did not adequately assess the health and environmental</p>	<p>Please see response to Item 4 above. Many of the impacts described were caused by legacy mining operations. These impacts will be investigated under the ESIA, as part of baseline conditions, and will be taken into account in assessing potential impacts of the proposed KPP.</p>

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	<p>impacts of heavy metals such as mercury. For instance, there is a correlation between environmental pollution and bioaccumulation of heavy metals in some produce. Ingestion, of mercury-contaminated produce can cause damage to the brain, nervous system, kidneys, and skin. Mercury has also been linked to reproductive problems and birth defects. Lead is another heavy metal, released during the combustion of coal, that contaminates water. Exposure to lead has adverse health effects including damage to the developing nervous system, memory, and kidneys.</p> <p>More generally, the Bank did not adequately consider adverse impacts from the disposal of coal ash and other waste primarily due to insufficient data. It does, however highlight some significant problems with respect to storage of coal ash, noting that some dump sites are not rehabilitated and there is monitoring. Coal ash poses significant health hazards: ash contains arsenic, lead, cadmium and mercury, and depending on how it is stored may leach into the soil and contaminate groundwater sources. Noting that Kosovo's waste inventory is incomplete, at the time of the SESA, ash made up the largest component of the inventory; and the ash landfills for Kosovo A and B have exceeded their originally intended volume capacities. New mining and power plant operations will compound this problem. Studies to date have not adequately considered these disposal issues. Thus, the Bank needs to provide measures that will adequately address ash disposal as well as other waste.</p> <p>The Bank's SESA has not adequately addressed reclamation of mining lands following cessation of mining operations. Mitigation of long-term harms could be achieved by reclamation of abandoned mine lands in the future. However, the Bank's SESA has neither provided plans for future reclamation of land at mining sites following cessation of mining activities nor allocated adequate funds to complete restoration of mining sites.</p>	
5 (c).	<p>V(A)(1)(c). Unsustainable Water Usage. The Bank failed to fully evaluate the sustainability of water usage, in violation of OP 4.01(1) and (2). According to the SESA, water flow rates at the existing power plants are not measured, calling into question the accuracy of the water consumption rates that were used in the SESA. Additionally, due to the lack of clarity on air pollution controls, it is unclear to what extent current water estimates include increased water consumption as a result of measures like sulfur scrubbing and carbon capture and storage (CCS). Given competing water demands for irrigation and other uses, this oversight prevents development of meaningful strategies to mitigate the risk of water shortage. The proposed project therefore requires a more accurate water supply analysis and a sustainable water management plan to ensure reliable water supply to all relevant sectors. Furthermore, the Bank must investigate how the project will affect any vested water rights in the area as part of their due diligence.</p> <p>Kosovo A and B are supplied by the Llapi River and the Iber-Lepenc Canal, respectively; during summer months when the river flow rate is low, water is taken from the Iber-Lepenc canal. The new Kosovo C power plant is expected to get its water</p>	<p>Please see response to Item 4 above. In addition, on the issue of water, please refer to detailed response in Annex 1, Item 3.</p>

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	<p>supply from the Iber-Lepenc water system. Even if the Bank's projections of water usage are accurate, the heavy water usage at Kosovo C raises questions about the long-term sustainability of the KPP. In fact, communities in the villages of Dardhishte and Cerna Vodica are particularly concerned that a new plant will result in water shortages in the area, and lead to a trade-off between operating the plant and domestic water consumption. According to the SESA, consumption of water at Kosovo C could account for almost 25% of the total demand across the country depending on the land acreage under irrigation. This projection is based on assumptions that might not hold – no significant changes in weather and rainfall patterns, loss of water in the waterways can be capped at less than 25%, and reducing water consumption by almost 42% in the Prishtina and Mitrovica municipalities by 2016. As the SESA itself notes, reducing consumption in the Prishtina and Mitrovica municipalities "is realistic only if significant investments in the internal potable water distribution network are made." Despite identifying that significant investments in the water management infrastructure will be required, the SESA does not detail how this task will be accomplished.</p> <p>In addition, unresolved water usage issues, and attendant effects on irrigation, could have adverse effects on attempts to achieve reconciliation among the various ethnic groups within Kosovo. Limited water resources could impose a heavy burden on Kosovo's agricultural industry and could lead to competition between the farmers in rural areas and industrial users in urban areas. SESA has acknowledged the possibility of "competing water demands . . . emerg[ing] in the medium-term (5-10 years) and . . . longer term." The history of civil strife within Kosovo and the region at large underscores the need to monitor catalysts with the potential to rekindle remnant tensions.</p>	
5 (d).	<p>V(A)(1)(d). Transboundary Impacts. The Bank did not adequately consider transboundary effects of the KPP in violation of OP 4.01(3), which requires consideration of "transboundary and global environmental aspects." Air pollution can have significant transboundary impacts on the environment and human health. While CO2 does not directly affect human health, the costs of increased emissions and global warming disproportionately affect members of the developing world within the Balkans and beyond. Transboundary impacts from SO2 and acid rain were not adequately considered in the Bank's SESA. Acid rain has devastating impacts on the environment including damage to lakes, streams, and forests. In addition, the transboundary impacts from exposure to toxins were inadequately accounted for in the Bank's SESA. Hydrogen Fluoride particulates can travel distances as far as 500 km. Given that major metropolitan capitals of the Balkans are less than 500 km from Prishtina, the potential scope of injury is significant with individuals in Albania and Macedonia most at risk of injury due to winds blowing in from the north-east. The Bank has also failed to ensure or to effect notification of riparian states of potential changes in allocated water quotas, in violation of OP 7.50(4). OP 7.50(4) requires that "[t]he Bank ensure[] that the international aspects of a project on an international waterway are dealt with at the earliest possible</p>	<p>Please see response to Item 4 above.</p> <p>As noted previously, the SESA is not the ESIA for the proposed KPP. The ESIA will comply with Bank policies and investigate, <i>inter alia</i>, transboundary impacts, including impacts on international waterways. Subject to the findings of the ESIA, the proposed Project will comply with the requirements of OP 7.50.</p>

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	<p>opportunity. If such a project is proposed, the Bank requires the beneficiary state, if it has not already done so, to formally notify other riparians of the proposed project and its details. If the prospective borrower indicates to the Bank that it does not wish to give notification, normally the Bank itself does so. If the borrower also objects to the Bank's doing so, the Bank discontinues processing of the project. The executive directors concerned are informed of these developments and any further steps taken." OP 7.50(8) also requires that if no consent is obtained, the Bank staff have to assure the board that the project will not adversely impact the other riparian states. It is unclear whether Kosovo has notified riparian states regarding either foreseeable changes in its allocated quota of water or discharges of industrial effluents into the river without treatment. The KPP could place large burdens on Kosovo's allocated quota of water. For example, while the concentration of SO₂ and other acid gases may be effectively reduced through systematic use of scrubbers, use of scrubbers could have implications for enhanced water usage at the power plant.</p>	
5(e).	<p>V(A)(1)(e). Impacts on Workforce. The Bank has also not adequately considered potential impacts of the local work force. <i>Local Unemployment.</i> The Bank's assumption that the Sibofc mine and the coal plants will employ a meaningful number of local workers is questionable. According to the Bank, "the number of people employed in mining activities will decrease (due to modernization of technology), will be more than compensated by the increase of people employed at the plants." However, the updated plants will operate with technology that could well eliminate many jobs. Further, Requesters are concerned that employees who are laid off from mining activities and decommissioning Kosovo A will not be re-hired or provided programs for financial support. Additionally, the Government decision to give the management of the existing Kosovo B power plant to the same company that would win the contract for the construction of the new power plant would simply transfer the current monopoly from the public (state-owned enterprise, KEK) to the private sector. This is against the interests of current local employees because they are concerned that privatization will lead to significant salary reductions and job cuts, and infractions of existing laws. Furthermore, due to a lack of adequate provisions in the plan for training, Requesters also fear that skilled labor may be brought in from outside the local region. Without programs to either retrain and/or help provide financial support to workers who are laid off, local communities will suffer significant harms, and the SESA should have taken these considerations into account.</p>	<p>Please see the response in Item 2 above. As noted in Item 2, the Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures.</p> <p>On a broader scale, current power shortages in Kosovo are a major impediment to job creation. Nine out of ten firms surveyed in the 2010 Business Environment and Enterprise Survey (BEEPS) cited lack of reliable electricity supply as one of the principal obstacles to investment. Improving power supply and services should facilitate investments by small business that would create jobs in Kosovo. Other obstacles to doing business are being addressed by the Bank through an ongoing Business Enterprise Technical Assistance operation and by the International Finance Corporation (IFC) through focused advisory services. In addition, the Bank, through the Sustainable Employment Development Policy Operations project, is helping to lay the institutional and legislative foundations for sustainable employment and social safety nets.</p>
5(e)(i)	<p><i>Work Safety:</i> Work safety is another significant concern for the local work force. In the last decade, more than 30 work-related fatalities and injuries have been recorded in the whole complex. In some cases, the injuries resulted in significant physical impairment. The use of outdated technology is a contributing factor to these fatalities and injuries. Additionally, during working hours, employees are exposed to emissions of gases,</p>	<p>Issues related to safe working conditions and practices will be considered in the context of the ESIA.</p>

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	dust, smoke, loud noises, and other health and safety threats. Even though current management has done little to resolve these problems, Requesters are concerned that without strict state regulation, the conditions will only worsen under a private monopoly. This is in light of past instances where, when daily operations were handled by a private company, working conditions worsened. The Bank should have considered the impacts of privatization in this respect in the SESA.	
5(e)(ii)	Beyond the occupational dangers of coal mining, the proposed privatization of mine and plant operations could interfere with the right to associate and organize among the coal and power plant workers, as discussed below in section V.D. This is due in large part to past experiences with privatization in Kosovo.	Please see the response to item 5 (e) above.
5(f)	V(A)(1)(f). Impacts on Agriculture. The Bank has not fully considered the KPP's impact on agriculture within Kosovo, in violation of OP 4.01(3). Heavy metal contamination of produce could reduce demand for Kosovo's produce. In 2006, the agriculture sector accounted for the largest share of employment in Kosovo and contributed to 25% of the Gross Domestic Product. In rural areas, where approximately 60% of the population lives, agriculture provides the main source of income. As of 2005, export of agricultural produce accounted for 16% of the country's export earnings. Decreases in GDP from reduced agricultural exports could reverberate through the economy and threaten delivery of services to vulnerable members of society. Additionally, the expansion of the mine will displace sizable portions of land currently under cultivation for which there is no adequate replacement; much of it used for subsistence farming.	The ESIA will consider and investigate issues raised by the Request. In accordance with the RPF, RAPs will be developed for each community that may need to be displaced by the proposed KPP. The RAPs will include socio-economic baseline surveys and, in consultation with the affected households, will set out compensation for loss of assets and alternatives for restoration of livelihood.
5(g).	V(A)(1)(g). Cumulative Impacts. As noted above, consideration of cumulative impacts is particularly important in the context of these projects. OP 4.01(1) provides that the environmental assessment "helps to ensure that [the project is] . . . environmentally sound and sustainable." OP 4.01(3) requires that the "EA consider[] natural and social impacts in an integrated way." These requirements support the consideration of cumulative effects. The project environment is already under significant stress; air pollution, soil and water contamination, and associated health impacts, when taken together, have considerable cumulative impacts for communities living in the area. Simply continuing the same pattern of pollution will only exacerbate the harms to human health and the environment suffered earlier. Even though an older plant would be replaced by a new one under the KPP, the continued contamination of an environment that has suffered significant harms from existing mines and power plants over the past decades could cause irreversible impacts to the environment and human health. And, the KPP would lock the region into decades of the same or worse harms. Furthermore, given the difficulty and length of time involved in cleanup, the burden on affected communities will persist for a very lengthy period into the future, well beyond the lifetime of the power plants. In short, the KPP will commit the region to a pattern of development that could push the local environment past the tipping point. The SESA has failed to account for this possibility.	Please see response to Item 4 above. The ESIA will evaluate, <i>inter alia</i> , the cumulative impacts of the proposed Project.

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6.	<p>V(A)(2). Consideration of Project Alternatives. OP 4.01(2) requires examination of project alternatives. It also states that the Bank “favors preventive measures over mitigatory or compensatory measures, whenever feasible.” In this instance, the Bank has not adequately considered alternatives that would eliminate the numerous social and environmental harms associated with coal mining and combustion identified above. Particularly given the cumulative impacts involved, project scenarios that <i>prevent</i> environmental and social harms are preferred. Recent analyses by the Renewable and Appropriate Energy Laboratory at the University of California Berkeley, and the Kosovar Institute for Development Policy and Sierra Club support the conclusion that a combination of energy efficiency measures and renewable energy sources are meaningful alternatives to the current proposal for Kosovo’s energy sector. The SESA reflects the Bank’s failure to meaningfully consider viable alternatives in two important respects. First, the Bank did not adequately consider alternative energy efficiency projects that would reduce base load demand and mitigate risks from operation of the power plants. The marginal abatement benefits from such projects are high, they are generally cheaper to implement, and they create more jobs. For example, providing insulation to buildings could significantly reduce existing inefficiencies, and result in many jobs. Furthermore, elimination of transmission losses would reduce base load demand and significantly curtail production of CO2 and other toxic substances. Transmission losses accounted for almost 50% of the electricity generated between 2000 and 2006; the magnitude of these losses exceeded the electricity that was generated from Kosovo A. With upgrades to the transmission grid, Kosovo A could be decommissioned without compromising the production of electricity relative to the status quo. It appears that the Bank is counting on privatization of the grid to remedy these losses. Instead, the Requesters urge the Bank to consider the sector as a whole and stem these losses before deciding to invest in building new generating capacity. Second, the Bank did not adequately consider the potential of renewable energy sources. While the Bank’s Project Information Document references hydropower generation, the SESA made no significant mention of this resource. In fact, development of hydropower resources could add up to 365 MW without attendant pollution problems because the energy from a 365-MW hydroelectric plant over 24 hours in a year equals about 3200 GWh. Additionally, despite “initial indications of some limited potential,” “the full wind potential has not been studied.” The potential for solar energy, particularly small-scale systems, is also not fully examined.</p> <p>The CO2 reduction strategy in the Bank’s SESA is also at odds with OP 4.01(2). The SESA notes that CCS is an option for reducing CO2 emissions. However, it also acknowledges that CCS technology is a “relatively untried concept” over the long term. In addition, “the fuel needs of a coal-fired plant with [C]CS [would increase] by about 25%,” thereby increasing electricity prices and environmental impacts of the plant. Investment in energy efficiency projects and renewable energy sources would eliminate or reduce the need for CCS and other mitigatory</p>	<p>The ESIA will assess the alternatives to the proposed KPP for meeting energy needs as well as the emissions and impacts of the proposed Project.</p> <p>Over the last 10 years, a large number of studies have been carried out on various aspects of the energy sector and the proposed Project by several donors and the Bank. Prior to providing even its “in principle” expression of support, the Bank commissioned a study entitled “Development and Evaluation of Power Supply Options for Kosovo” (December 2011) that took into account economic, financial and environmental costs—including local and global externalities. The study concluded that the lowest cost reliable energy supply to meet Kosovo’s base load and peak demand is a mix of thermal and renewable energy sources that includes about 750 MW from hydropower and other renewable sources, rehabilitation of Kosovo B and construction of the 600 MW KRPP. These findings differ from the findings of the Renewable and Alternative Energy Laboratory (RAEL), Berkeley study cited by the Requesters and another study prepared by the Sierra Club. The Bank team reviewed both these latter studies and does not share their conclusions. Formal comparisons between their findings and those of the Options study can be found in Annexes 6 and 7. These comparisons are also posted on the Bank’s Kosovo Energy website along with the Government of Kosovo’s own assessments of the various analyses.</p>

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7.	<p>V(A)(3). Inadequate Disclosure and Consultation. The Bank did not adequately follow the requirements for public consultation and failed to ensure that access to information in affected communities occurred in a meaningful manner, in violation of OP 4.01(15). OP 4.01(15) addresses disclosure requirements and states that “[f]or meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.”</p> <p>Requesters state that local consultations were limited, that the harms associated with the project were not meaningfully discussed, that their concerns were rarely addressed in a satisfactory manner, and that the local union was not included in the consultations despite the concerns around local employment. Furthermore, for the last three years, there has been no Bank contact with the local communities about the proposed project. Some of the specific concerns raised during consultations include: uncertainty about the resettlement process and which villages will be resettled; what measures would be taken to improve environmental conditions and access to water for domestic uses; electricity prices, particularly given the expected privatization; and the impact on local employment. In one instance, the Requesters expressed their desire to be informed and consulted in the tendering process for the privatization, however, to date, neither the Kosovo Government nor the Bank have provided them with any information in this regard.</p> <p>Additionally, even though consultations and meetings were arranged with affected villages in Kosovo, the consultations were insufficient and non-representative, for the following reasons: (a) while approximately 20% of the individuals in ten villages within the Obiliq municipality participated in surveys to determine residents’ concerns regarding the KPP, in four villages the participation rates were significantly lower than in the other six: less than 100 people participated in the surveys in each of these four villages; (b) the studies do not indicate the extent to which participation across gender and ethnic lines was achieved; (c) at subsequent consultation meetings to disclose survey findings to villages within the Obiliq municipality, the average attendance was seventy; and (d) the proximity of the Obiliq municipality to Prishtina suggests that the 500,000 residents within the greater metropolitan area should have been informed and consulted. These shortcomings underscore the inadequacy of the consultation process.</p>	Please see Annex 1, Item 8.
8.	<p>V(B). OP 4.12 – Involuntary Resettlement. The Bank’s Resettlement Policy Framework (RPF) and associated documents, developed under the LPTAP and “intended to apply to all aspects of the Lignite Power Project,” does not fulfill the requirements laid out by OP 4.12 to avoid, minimize, and fully compensate for involuntary resettlement that the KPP will cause. Thus, the KPP will likely violate numerous provisions of</p>	<p>The ESIA will assess the alternatives for avoiding, minimizing, and mitigating adverse impacts.</p> <p>A Resettlement Policy Framework (RPF) has been developed by the Government consistent with Bank policies and will apply to all resettlement associated with the proposed</p>

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	<p>OP 4.12 necessary to mitigate the “long-term hardship, impoverishment, and environmental damage that involuntary resettlement causes.”</p> <p>Although final Resettlement Action Plans (“RAPs”) are yet to be developed, the RPF and associated documents, which establish the parameters for the RAPs, can be assessed against OP 4.12 to determine whether the framework adequately incorporates relevant considerations and whether it was developed with adequate consultation. In this regard, the following aspects are particularly relevant: consideration of project alternatives; consideration of the full extent of impacts; compensation for lost agricultural land, and community consultation.</p>	<p>KPP. Based on the RPF, a Resettlement Action Plan (RAP) has been prepared for the Shala neighborhood of Hade village, in consultation with the affected communities. The RPF, the existing RAP and any additional RAPs which will be developed for other affected communities based on the RPF, would govern the relocation and resettlement of any population that may be displaced by the proposed Project.</p> <p>As to the consideration of alternatives to the proposed Project, please see Item 6 and Annex 1, Item 5. As regards consultations with the communities, please see Annex 1, Item 8.</p>
8(a).	<p>V(B)(1). Consideration of Project Alternatives. OP 4.12(2) states that “[i]nvoluntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.” This means that when a proposed project is likely to lead to involuntary resettlement, the Bank must explore all viable alternative projects. As noted above, the Bank has not considered viable alternative projects, particularly those that could be carried out with minimal or no resettlement, in contrast to the substantial displacement anticipated by the KPP. Such minimally disruptive alternatives include project scenarios that address transmission losses and increase energy efficiency projects, as well as promote renewable energy projects.</p>	<p>Please see response to item 8 above.</p>
8(b).	<p>V(B)(2). Consideration of the Full Extent of Impacts. The KPP will lead to widespread displacement, both in terms of outright confiscation of land and in terms of environmental and health impacts that will render areas within the Obiliq municipality unlivable. It will also result in loss of agricultural lands and livelihoods, and degradation of sites of cultural, historic, and religious importance. These impacts fall within the “direct economic and social costs” that OP 4.12 requires resettlement programs to cover and will likely exceed those accounted for under the RPF. Additionally, when physical resettlement is envisioned, the Bank must ensure that displaced persons are “provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.” As discussed below, this is unlikely to happen, based on current proposals.</p> <p>While the SESA and the Government Spatial Plan examine a number of impacts associated with resettlement, some issues are not fully analyzed, including: land tenure issues; the extent of displacement; and lost livelihoods as a result of lost agricultural land. Requesters note that because most villages have been designated areas of special economic interest by the Government, they can be relocated at any moment and the municipality cannot function effectively with this uncertainty. The Government has already resettled some residents, and others do not know if or when they will be resettled. Thus, there is great urgency to clarify plans for resettlement and</p>	<p>Please see response to item 8 above.</p>

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	<p>compensation schemes, including for those who have already been displaced.</p> <p>Bank documents make clear that impacts will extend throughout the New Mining Field (150 km² area), as well as areas affected by plant operations. As part of its due diligence, the Bank should ensure that issues relating to property claims are resolved prior to resettlement. There are two main ways in which property rights issues may arise in this instance: the confiscation of the land itself; and the ownership of land in areas where people will be resettled. Requesters state that in 2004, the Government of Kosovo declared the villages of Hade, Sibofc, Leshkoshiq and Cerna Vodica as areas of special economic interest, which effectively allows the Government to initiate relocation of residents as needed. In March 2009, three additional Obiliq villages of Fushe Kosova, Vushtrria, and Drenas were declared an area of special economic interest due to the granting of the New Mining Field. The Bank must examine whether this government designation of special economic interest and subsequent relocation is in line with Bank policy as well as relevant national and international law. Additionally, the RPF states that in terms of eligibility for resettlement and compensation, if an individual claims ownership of land but cannot show full legal title, the Project Company's resettlement office will review the claim. But, it is not clear what this office is and how it would be managed. The Inspection Panel should consider whether this process is adequate to ensure that any resettlement occurs in line with Bank policy. Further, controversy exists over ownership of lands designated for restoration and resettlement, as "previous land owners (whose lands were expropriated during the nationalization period) have filed cases to regain property rights." These issues must be resolved before further resettlement takes place. While the RPF does envision a grievance process, this is hardly a replacement for resolving land titles beforehand.</p> <p>Due to the declaration of special economic interest and the resulting uncertainty as to when homes will be condemned to make way for the new mine and plant, the economic and social development of the municipality of Obiliq is effectively paralyzed. To date resettlement documents do not clarify the extent of intended resettlement and do not fully consider the fact that the municipality has been in this state since 2004. The impacts of the KPP will require significant resettlement and associated compensation. According to the SESA, KPP development will most adversely affect the Obiliq municipality, which has a population of approximately 21,500. Four villages will be severely affected by new lignite extraction and will require physical relocation. These villages include: Hade (5 km² and 2900 inhabitants); Leshkoshiq (3.7 km² and 1300 inhabitants); Shipitulle (1 km² and 100 inhabitants); and Sibofc (7.4 km² and 2020 inhabitants). So far, the Government has partially relocated residents of Hade; those who remain continue to live in homes next to the Kosovo Electric Corporation (KEK) mine site. Of the relocated residents, some were relocated to Shkabaj village in Obiliq, others were moved to two residential complexes in Obiliq: Hade 1 and Hade 2. The</p>	

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	<p>Government has failed to adequately compensate displaced inhabitants, or ensure their economic stability and social integration.</p> <p>The remaining settlements, including the municipal center of Obiliq itself, will experience significant impacts from lignite power generation. In particular, three settlements (Dardhishte, Cerna Vodica, and Berisha), with over 3300 inhabitants, lie “within a triangle of degrading influence” and will be heavily affected by facilities for electricity generation, ash dumps, waste landfills, and mineral developments. For example, in Cerna Vodica, coal transportation belts run right through the village and cause significant disturbance to residents. Additionally, several government documents (attached) indicate that the village of Dardhishte, separated only by a road from the Kosovo A plant, is not fit for inhabitation and should be relocated. However, despite attempts to raise these concerns, residents have received no response from the Government or the Bank, as to whether they will be relocated and if so, how that will happen. Currently, the remaining residents of Hade do not know when relocation will occur. Residents of other villages do not know if they will be relocated or not. Requesters urge that they be informed and consulted about current plans for resettlement, and that any resettlement process be supervised to ensure that they are implemented effectively.</p> <p>The RPF also does not adequately consider the loss of agricultural lands and livelihoods in this context. According to the Kosovo government, approximately 60% of the population living in the region are farmers, working in agricultural enterprises or for subsistence. The majority of residents have “very low” incomes and “depend on extensive agriculture for [their] survival.” A quarter of the population also supplements family income by 10% through the harvesting and sale of timber. The new Sibofc mine will directly convert 13% of the land in the Obiliq municipality, comprising fertile agricultural lands, settlements, roads, and forests on which these populations depend for food and livelihoods. The development of infrastructure for transportation of coal and ash, and impacts of dust, acid rain, and ash from landfills will further degrade agricultural lands and forests. The RPF’s solution to this land shortage – its heavy reliance on the use of rehabilitated lands as alternative farmland for displaced persons – is inadequate. For example some land has “residual contamination levels” that would make it difficult to rehabilitate for agricultural purposes. Requesters are concerned that there is insufficient agricultural land to restore livelihoods, and that there is no commitment from the Government or the Bank to provide programs for alternative economic integration. If resettlement occurs without suitable solutions to these issues, it would violate Bank policy because displaced persons have not been provided options that are equivalent to their previous situation. Thus, if the Bank cannot provide a better solution for the problems arising from lost agricultural land, it will be unlikely to meet the requirements governing land-based resettlement.</p> <p>KPP development will further compromise the social and cultural infrastructure of the affected zone. The four villages that will require immediate resettlement contain secondary schools,</p>	

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	<p>health facilities, and mosques, as well as historic memorials in both Hade and Shipitulle. The relocation of these communities will “disrupt[] social networks” and “lead to a loss of cultural heritage and local memories.” These adverse social and cultural impacts will compound the difficulties that these project affected communities have already endured due to the “vagaries of war and the challenges of living near the mine and power plants.” The KPP may also reduce cultural tourism to the Holy Tomb of Sultan Murat II near Obiliq, which brings approximately 20,000 visitors to the area each May. The RPF should include these considerations.</p>	
8(c).	<p>V(B)(3). Compensation for Lost Agricultural Land. OP 4.12 states that “preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land based.” When land is offered, it should be “at least equivalent to the advantages of the land taken.” OP 4.12 also provides that when land-based options are not available, “non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost.” At this stage, resettlement plans do not adequately address the compensation implications of the lack of suitable replacement agricultural land for a resettled population. As noted above, the area planned for mining development is largely composed of fertile land, and it is principally inhabited by large families who work in agricultural enterprises or independently as subsistence farmers. The SESA concluded that “there is not enough replacement agricultural land to resettle people who rely on farming for their livelihoods.” Additionally, the RPF acknowledges that “there is an acute shortage of good agricultural land in the area around the proposed mining and power complex.” Requesters note that relocated Hade residents, mostly farmers, are now housed in apartments with no access to land and little assistance to integrate into their new situations. They are also uncompensated for their lost agricultural land. The Bank must ensure that adequate compensation is provided, and these costs should be included in the externality costs of the proposed project.</p>	Please see response to item 8 above.
8(d).	<p>V(B)(4). Inadequate Community Consultation. Inadequate community consultation in development of plans for resettlement to date has led to the underestimation of resettlement and compensation that will be required due to loss of lands, residences, and livelihoods. Community consultation is necessary to appropriately value affected assets, involve the public in decision-making processes, manage impacts on vulnerable groups, and resolve grievances, among other benefits. OP 4.12 Annex A(15) contains requirements for community consultation for resettlement plans, including an RPF.</p> <p>As noted above, the overall community consultation process was inadequate, and there has been little to no contact with local communities for the last three years. While it is important to note that some resettlement occurred before Bank involvement in the project, subsequent Bank consultation around resettlement is inadequate. With regard to prior</p>	Please see response to item 8 above.

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	<p>consultation, the SESA itself notes that consultation with communities in the area was “poor or non-existent,” and led to widespread discontentment and the migration of residents from surrounding villages. In the village of Hade, for instance, previous activities related to the proposed project activities resulted in the resettlement of 85 families, who have been left with inadequate housing and compensation. The 495 families remaining in Hade endure economic hardships and suffer from environmental and health impacts, including from “current pollution levels, extensive noise coming from current activities at the power plant and insecurity about the future progress the new mine.” Nevertheless, even after Bank involvement, and more than seven years after the decision to relocate Hade residents, the process of relocation is incomplete, residents have not been compensated adequately, and there is little to no information about how residents’ concerns will be addressed. The citizens who are still in Hade, expecting to be relocated, have no information on how their relocation is going to take place, the location of their future settlement, how they will be compensated, or when this process will begin. Residents of other villages where resettlement could take place in the future are also concerned by the lack of information and consultation. These hardships will likely continue under the development of the KPP unless the Bank remedies deficiencies in community consultation and compensation.</p>	
9.	<p>V(C). OP 10.04 – Economic Analysis. The Bank’s current economic analyses for the proposed Kosovo C fail to meet the requirements of OP 10.04. According to OP 10.04(1), the Bank must “conduct [an] economic analysis to determine whether the project creates more net benefits to the economy than other mutually exclusive options for the use of the resources in question.” This includes exploring project alternatives and considering the externalities of a particular project, neither of which were done adequately in this case. OP 10.04(2) explains that the Bank is required to ensure that (1) “the expected net present value (“NPV”) of the project’s net benefits [is] not . . . negative” and that (2) the NPV is “higher than or equal to the expected net present value of mutually exclusive alternatives.” In conducting an NPV analysis the Bank must consider a number of different factors, including “domestic and cross-border externalities,” long-term sustainability, and risk. Although an economic analysis was conducted, presumably under the LPTAP, this analysis was cursory and incomplete, and does not meet the requirements of OP 10.04. As described below, it fails to adequately account for project costs and externalities, fails to consider alternatives such as, energy efficiency schemes, hydropower, wind power, or solar energy, and fails to adequately consider long-term sustainability. The Expert Panel reviewing the KPP commissioned a new analysis, which the Bank release in December 2011 entitled Background Paper: Development and Evaluation of Power Supply Options in Kosovo. However even this analysis falls short of OP 10.04 requirements for similar reasons. Further, even if the Bank corrected the shortcomings of the current analyses and accounted for relevant costs and risks listed below, the KPP would very likely not meet the Net Present Value test required</p>	<p>No economic analysis has yet been done for the proposed KPP, because the proposed Project is still at the concept stage. As part of the Bank’s appraisal of the proposed Project, an economic analysis will be undertaken (in addition to environmental, social, technical, financial and fiduciary analyses). In line with Bank policies, the economic analysis will take into account criteria for acceptability, alternatives, non-monetary benefits, sustainability, risks, poverty impacts, and externalities.</p>

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	by OP 10.04(2).	
9(a).	<p>V(C)(1). Project Costs and Externality Costs. The Bank claims “Kosovo’s lignite is currently the least-cost option even after accounting for externalities.” However, the Bank failed to adequately consider project costs, including externality costs. For example, the analysis fails to appropriately account for the costs of: improved water provision and transportation infrastructure; employee training; environmental and health harms, abatement technologies and associated impacts; lost agricultural production and resettlement; and mine closure. These costs, if properly factored in, will significantly increase overall project costs.</p> <p>The Bank’s analyses are silent on the costs of managing and already stressed water system, and the costs of building adequate transportation infrastructure. Stress on the supply of water is a significant concern in the Iber-Lepenc water system, which is the expected source of water for the new mine and power plant. To meet the increased demand, the costs of improving the water systems must be accurately measured. Additionally, the project will require updating transportation infrastructure. The heavy industrial equipment needed for the KPP may need to be shipped from outside of Kosovo and airlifted into the project site. Updating this infrastructure, or alternatively airlifting industrial parts around it, has not been not adequately priced.</p> <p>With respect to local employment, although the Bank’s analysis assumes that the project will create jobs, it does not examine the cost of training programs necessary to ensure that local populations will have employment at the coal mine and the coal-fired power plants.</p> <p>The Bank does not adequately address costs associated with damage to the environment and human health. First, the analyses so far focus <i>solely</i> on the environmental costs of air pollution. Beyond air pollution, the Bank’s analysis fails to cover other relevant costs, such as waste management and health impacts of land and water pollution. Furthermore, the cost of abatement technologies and related impacts, particularly for dealing with harmful air pollutants is not adequately considered. Also, the Bank’s economic analysis compares the environmental costs of the lignite power plants only with fuel and gas alternatives, not renewables. This significantly affects the cost benefit analysis in relation to project alternatives.</p> <p>Second, the assumptions used for the 2006 environmental cost estimates are unclear and the estimates do not provide a clear picture of the environmental and health costs associated with the project. The Bank’s projection for environmental costs for the Kosovo plants is 15 Euros per MWh, and it is unclear what assumptions were made in the modeling that led to this figure. As yet, it is unclear what specific pollution controls will be in place for Kosovo B and C, and thus what the emission levels and associated costs will be.</p> <p>The Bank’s analysis also does not adequately account for lost agricultural land and costs of resettlement. Sixty percent of the population in the project site relies on agriculture for their livelihood, either through subsistence farming or cash crop production. In addition to lost production because of competition</p>	Please see response to item 9 above.

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	<p>for water resources, the mine is converting fertile land. The Bank's analysis does not account for these opportunity costs, nor does it account for the lack of agricultural land to resettle persons who rely on farming for their livelihoods. Furthermore, the SESA contemplates the use of "reclaimed land" for agricultural uses, presumably for populations displaced by the project. Converting reclaimed land into land suitable for farming will entail substantial costs. These costs were not included in the Bank's analysis.</p> <p>Finally, at the end of the project period, the Sibofc mine will need to be closed and the land returned to its previous condition. The Bank's economic analysis does not address these costs, though the costs associated with mine closure and reclamation will be substantial.</p>	
9(b).	<p>V(C)(2). Meaningful Alternatives</p> <p>The omissions of significant costs and a failure to capture key variables in its risk analysis are symptoms of the Bank's general failure to conduct a proper analysis of meaningful alternatives, which is "one of the most important features of proper project analysis." The Bank's analysis does not examine a meaningful mix of base, load-following and peaking units. It also fails to analyze the cost-effectiveness of a common clean source peaking unit: hydropower. Hydropower resources are particularly relevant for the KPP project area, as the Bank describes the Kosovo's river system as a "well developed hydrological network." The Kosovo Energy Plan discusses at least two feasible hydropower sources: the HPP Zhur and the HPP Ujman. In another study the Bank and the EU Commission describe Kosovo as having "significantly more potential" for hydropower development than is currently utilized. Furthermore, the analysis does not contain assessments of other renewable energy sources, such as the potential for wind and solar power, nor adequate consideration of energy efficiency measures. As noted above, recent studies show that Kosovo could meet its energy needs by using a combination of an upgraded Kosovo B, energy efficiency measures, and renewable energy sources. The Bank should consider these alternatives before deciding to fund a new power plant in an already stressed environment.</p>	Please see response to item 9 above.
9(c).	<p>V(C)(3). Risk Analysis and Long-term Sustainability</p> <p>The Bank's economic analysis omits critical risk analysis variables that, if included, would significantly impact the NPV. To assess risk, the Bank must conduct a risk analysis that "estimates the switching values of key variables . . . and the sensitivity of the project's net present value to changes in those variables." To perform these calculations, Bank guidance specifies "identifying the variables that most influence a project's net benefits and quantifying the extent of their influence."</p> <p>First, the Bank's analysis did not consider variation in electricity demand due to time of day, season, and weather. This temporal variation in use means that cost-effective energy supply of electricity is best achieved through a mix of base load units, load following units, and peaking units. Second, the Bank's analysis fails to incorporate volatility in the price of coal. Coal inputs can be a significant and highly volatile variable in the</p>	Please see response to item 9 above.

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	<p>cost of generating electricity. The Bank erroneously assumes a 10-year old cost estimate of 0.89 € /GJ, substantially lower than estimates for other countries in the region. Third, the Bank's analysis fails to account for the highly volatile construction costs of the project. Since the Bank's economic analysis was performed, construction costs have spiked. These key variables, if adequately addressed, would substantially alter the NPV for the KPP.</p> <p>Additionally, the Bank must "assess[] the robustness of the project with respect to economic, financial, institutional, and environmental risks," including "whether critical private and institutional stakeholders have or will have the incentives to implement the project successfully." It appears that the Bank assumes the KPP will provide a significant opportunity to provide electricity to the regional market. An important factor here is the regulatory landscape in the European Union (EU), which is moving towards incentivizing renewable energy-based power generation and disincentivizing dirty energy sources. This could make fossil fuel-based power much less lucrative to export (and exports are expected from Kosovo C), especially to EU member countries, and thus threaten the long-term sustainability of the project and its development impact. Additionally, if Kosovo plans to accede to the EU in even the next 20 years, they would be subject to pollution pricing pursuant to the EU Emissions Trading Scheme or Directive 2003/87, which could be a significant financial burden. The Bank's due diligence should include these types of legal requirements that are likely to apply during the lifetime of the plant, particularly because of this context. However, the Bank's analysis did not contain any consideration of the EU's regulatory trend and its potential development risk.</p>	
10.	<p>V(D). Compliance with Rights Protected by the Kosovo Constitution</p> <p>Bank policies require that financed projects do not contravene country obligations as found in "national legislation[] . . . related to the environment and social aspects[] , , , and obligations . . . under relevant international environmental treaties and agreements." Similarly, the Bank "tries to work within existing law to the extent possible."</p> <p>Kosovo's Constitution incorporates the following agreements and instruments directly into their constitution: (1) Universal Declaration of Human Rights; (2) European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols; (3) International Covenant on Civil and Political Rights and its Protocols; (4) Council of Europe Framework Convention for the Protection of National Minorities; (5) Convention on the Elimination of All Forms of Racial Discrimination; (6) Convention on the Elimination of All Forms of Discrimination Against Women; (7) Convention on the Rights of the Child; (8) Convention against Torture and Other Cruel, Inhumane or Degrading Treatment or Punishment. Article 22 of the Constitution guarantees the human right and freedoms protected by these instruments. Further, Article 3(2) of the Constitution accords "full respect for internationally recognized fundamental human rights and freedoms." Additionally, Article 53 of the Constitution states that Kosovar interpretation of those</p>	<p>An Environmental and Social Impact Assessment (ESIA) is a key next step being undertaken by the Government. The Government expects to hire independent consultants to start the process of ESIA preparation, which is expected to take 12 to 15 months to complete.</p> <p>It will be conducted in accordance with the relevant Bank policies and in assessing the environmental and social impacts of the proposed KPP, will take into account the requirements of Kosovo national legislation and obligations of Kosovo under relevant international environmental treaties and agreements which pertain to KPP activities.</p> <p>Management would expect the Government to comply with national laws and regulations and relevant international environmental obligations as they pertain to the proposed KPP.</p>

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	<p>“human rights and fundamental freedoms” shall be consistent with the jurisprudence of the European Court of Human Rights. The human rights guaranteed pursuant to those provisions are incorporated directly into Kosovo’s national laws via the Constitution. Thus, the Bank must evaluate whether the project complies with Kosovar law and what effect this project will have on relevant human rights. In accordance with the Panel’s decision in the <i>Honduras Land Administration</i> claim, the Panel the Bank must also assess the impacts of the domestic legal framework on the protections afforded to affected peoples the Bank’s policies. There are a number of areas where rights are implicated. The Bank’s SESA currently under consideration makes no mention, nor provides even a framework for assessing the impact on the following rights.</p>	
10(a).	<p>V(D)(1). Impacts on the Labor Union In addition to the concerns related to local employment and safe working conditions raised in Section V.A, there are significant concerns about the privatization of Kosovo B and Kosovo C. In the past, the state-owned company in charge of mining and plant operations, KEK, has been managed by private entities, and there is a history of problems associated with collective bargaining and freedom of association. More generally, Requesters are concerned because instances of privatization in other sectors within Kosovo show that at times existing unions have faced significant discrimination. Against the backdrop of these problems, both generally and specific to the energy sector, the Bank must ensure that project activities would respect the following rights:</p> <p><i>The right to collective bargaining and freedom of association:</i> Kosovo’s Constitution directly recognizes the right to freedom to establish trade unions. The European Convention on Human Rights also protects freedom of association, and is thus guaranteed by the Constitution. The right to collective bargaining is necessary to enjoy this right. Through the Universal Declaration on Human Rights (UDHR), the Constitution also recognizes the right of peaceful assembly and association and the right to form and to join trade unions for the protection of worker interests, the right to freedom of association with others. Freedom of association has been recognized by the EU in multiple cases.</p> <p><i>The right to health:</i> (including safe working conditions) Through the UN Declaration on Human Rights (UDHR), Kosovo’s Constitution recognizes the right to “just and favourable conditions of work and to protection against unemployment” and “the right to a standard of living adequate for the health and well-being of himself and of his family, including ... the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.” European jurisprudence, especially through the Council of Europe’s Social Charter, has recognized the right to health with respect to working conditions. Although Kosovo is not a member of the European Union, as noted above, it does have aspirations to accede. Given the long-term nature of the proposed project and Kosovo’s aspirations to accede, the Bank should consider this project in the context of potential accession to the EU; the Bank’s due diligence should include legal</p>	Please see response to item 10 above.

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	requirements that will apply during the lifetime of the project.	
10(b).	<p>V(D)(2). General Impacts from Proposed Activities The Bank must demonstrate how project activities would respect the following relevant rights within the context of the broader environmental and social impacts of the project, such as pollution and changes to land use patterns: <i>The right to health:</i> As discussed above, the Kosovar Constitution guarantees the right to health. The proposed project will have numerous negative, long-term impacts on the health of the population in the affected region. The Bank must assess these impacts in the context of the right to a health. <i>The right to food:</i> The UDHR recognizes the right to food, and thus guaranteed by the Constitution. The project will have impacts on land-use patterns in the project area as well as serious broader impacts on access to water for irrigation for agricultural uses. Moreover, pollutants emitted from the power plants and mines can contaminate local produce and livestock. The Bank must assess the impacts of the project on the right to food. <i>The right to water:</i> The right to water is necessary for the enjoyment of the right to food. The right to water can be interpreted through the lens of work done in other bodies and could be considered by the Bank. This right should further be viewed in the context of the 2010 United Nations General Assembly resolution recognizing the right to water and sanitation. The project is likely to have severe impacts on local water supplies and the Bank should assess these impacts in the context of the right to water. <i>The right to housing:</i> Kosovo recognizes “the right to a standard of living adequate for the health and well-being of himself and of his family, including ... housing.” Particularly, in the context of resettlement related to the project, the Bank must assess the impacts on this right. Furthermore, the Bank must assess whether the implementation of the resettlement schemes, and the application of the “special economic interest” designations are sufficiently protective of the claimant’s rights under the Kosovo Constitution and their interests under Bank policies.</p>	Please see response to item 10 above.
11.	<p>V(E). OMS 2.20 – Project Appraisal OMS 2.20 details the major aspects and associated procedures of the Bank’s project appraisal process. Generally, appraisal involves examining six aspects of a project: “(a) economic, e.g., project costs and the size and distribution of benefits; (b) technical, e.g., engineering design and environmental matters; (c) institutional, e.g., management and organization; (d) financial, e.g., requirements for funds and the financial situation of the implementing agency and of other beneficiaries affected by the project; (e) commercial, e.g., procurement and marketing arrangements; and (f) sociological aspects, e.g., socio-cultural factors and impact on specific target groups such as women.” For reasons already detailed above, the Bank has failed to adequately appraise the proposed project, particularly with respect to quantifying economic costs, incorporating environmental and social impacts, and considering the implications of privatizing power generation.</p>	Management notes that appraisal of the proposed KPP has yet to be undertaken. The proposed KPP is still at the concept stage.

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	<p>Additionally, OMS 2.20 requires the Bank to ensure that the projects it supports are consistent with international obligations of the host country regarding the environment, health and public welfare. OMS 2.20 provides that:</p> <p>[A] project’s possible effects on the country’s environment and on the health and well-being of its people must be considered at an early stage... Should international agreements exist that are applicable to the project and area...the Bank should be satisfied that the project plan is consistent with the terms of the agreements.</p> <p>The Inspection Panel has previously concluded that the Bank has specific, auditable due diligence requirements under this provision of OMS 2.20. In its inspection report on the <i>Honduras: Land Administration Project</i>, the Inspection Panel concluded that OMS 2.20 creates an independent obligation for the Bank to consider whether the proposed Project plan and its implementation would be consistent with the host country’s obligations under its relevant international agreements.</p> <p>In the instant case, the World Bank has not done the due diligence required under OMS 2.20 to ensure that the project’s plan and implementation would be consistent with Kosovo’s obligations under the <i>Energy Community Treaty</i>. The <i>Energy Community Treaty</i> is an agreement between the European Community, Kosovo, and eight other Contracting Parties in South East Europe to establish an integrated market in natural gas and electricity based on common standards and norms. Towards this end, the <i>Energy Community Treaty</i> requires Kosovo to implement the European <i>acquis communautaire</i> on energy, environment, competition and renewables, among other standards.</p> <p>In particular, the Bank has not properly considered whether the project:</p> <ul style="list-style-type: none"> • Is being implemented in a manner consistent with the public consultation requirements of Directives 85/337/EEC, 97/11/EC, and 2003/35/EC referenced in Article 16. See, sections V(A)(3), V(B)(4); • Complies with the requirements of Directive 2001/80/EC as amended on the limitation of emissions of certain pollutants into the air from large combustion plants, and Directive 96/61/EC on Integrated Pollution Prevention and Control (IPPC) which is closely associated with Directive 2001/80/EC. 	
12.	<p>VI. CONSISTENCY WITH THE BANK’S STRATEGIC FRAMEWORK ON DEVELOPMENT AND CLIMATE CHANGE</p> <p>The Bank’s Strategic Framework on Development and Climate Change (SFDCC) specifically sets out criteria under which the Bank should assess investments in coal projects, such as the KPP. The SFDCCC Expert Panel’s report for the KPP found that the proposed activities are consistent with these criteria, however there is inadequate consideration of numerous issues and thus, the report does not appropriately assess the project against the guidance.</p> <p>In the first instance, the terms of reference for the Expert Panel were insufficient to provide for a full analysis of relevant factors. For example, the terms of reference did not adequately explore viable alternatives; failed to consider Kosovo’s need for a mix of</p>	<p>In its assessment of whether the proposed Project is consistent with the six criteria stipulated in the Strategic Framework for Development and Climate Change (SFDCC), the Expert Panel took into account a large number of studies and analyses prepared over more than ten years. These studies address important issues raised by the Requesters from various perspectives. They included donor-funded reports, analyses provided by academics and civil society representatives (such as Sierra Club, Renewable and Alternative Energy Laboratory at UC Berkeley), as well as the</p>

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	<p>base load, load following, and peaking capacity; and underestimated published estimates of electricity prices. The ultimate report still does not adequately address these issues, and, in addition, does not adequately address environmental and health externalities.</p> <p>The Bank's failure to adequately demonstrate development impacts, such as improving energy access for the poor or energy security, is inconsistent with Criterion I's requirement to demonstrate development impacts. While the Expert Panel concludes that a new plant will address the supply/demand gap, energy access also encompasses issues of price, income, and affordability for vulnerable groups. Additionally, the Bank significantly underestimates electricity rates, as well as the impact of privatization leading to a de facto monopoly on power generation. Thus, it is not clear what the actual development benefits will be.</p> <p>The failure to adequately consider energy efficiency measures and renewable energy alternatives is inconsistent with SFDCC Criteria II, III, and IV. Criterion II requires that "assistance is being provided to develop low carbon projects," and Criterion IV requires full consideration of viable alternatives to the least cost (including environmental externalities) options." Without fully examining the role of alternatives in the context of Kosovo's need for a mix of base load and peaking capacity, the project cannot meet the requirements of either criterion. Additionally, the inadequate consideration of energy efficiency solutions is inconsistent with the Criterion III requirement that "energy sources are optimized, looking at the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation." In Kosovo, energy generation is not optimized due to substantial unresolved technical and commercial losses. In 2007, only 53% of the gross energy consumption was billed; and from this billed energy, only 76% was successfully collected. In 2007, these commercial losses amounted to 1,333 GWh, equivalent to the sum of the entire production of Kosovo A, all production from the hydro power plants and part of Kosovo B production. It appears that the Bank is counting on privatization of the grid to remedy these losses. Instead, the Requesters urge the Bank to stem these losses before deciding to invest in building new generating capacity.</p> <p>With respect to externalities, although the report states that the KPP is still the least cost option even after accounting for environmental externalities, the analysis is inadequate. First, as far as Requesters can ascertain, the externalities only extend to air pollution. Second, the modeling for externalities may not reflect the most current standards. Based on the 2011 World Bank Background Paper for the project, it appears that the externality costs were calculated in 2006; these calculations should be updated to reflect current modeling standards, at the very least consistent with European standards. Furthermore, without specifying pollution controls and expected emission levels, it is impossible to adequately assess externalities. This failure to properly account for externalities coupled with concerns about monitoring pollution (described above) is not only inconsistent with Criterion IV, it is also inconsistent with</p>	<p>Bank study entitled "Development and Evaluation of Power Supply Options for Kosovo."</p> <p>The SFDCC provides guidance for the Bank's engagement with respect to the proposed KPP.</p>

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	Criterion VI, which requires “an approach to incorporate environmental externalities in project analysis.” For these reasons, the Expert Panel report does not contain an accurate assessment of the project against the SFDCC guidance.	