



Update of the Feasibility Study. ESIA and update of the Detailed Design for the construction of the road N9 Prishtinë - Pejë (SEETO Route 6 B), section from Kijevë – Klinë to Zahaq (30KM)

Environmental and Social Impact Assessment Non-Technical Summary (Draft)

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1. NON-TECHNICAL SUMMARY

1.1 Introduction

The Ministry of Infrastructure (MI) of Kosovo* is planning to undertake a Project to improve part of the national road N9 by constructing an offline Motorway section Kijevë – Klinë - Zahaq (31km). The Project is in line with the overall plan for improvement of the national road network, outlined in the national Multi-Modal Strategy (2012-2021) and Action Plan (2012-2016)¹. The Project is part of SEETO² Route 6 B.



Figure 1 Location of the Project on SEETO Route 6 B

The European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), in line with their policies³ and strategic Agreements with Kosovo*⁴, are promoting and supporting regional transport integration and development of strategic connections with neighbouring countries. This includes the development of Route 6 B, which runs from Pejë to Pristina, connecting to Corridor VIII in FYR Macedonia in the south and to Corridor X in Serbia via Route 7 in the north; it

¹ http://www.seetoint.org/wp-content/uploads/downloads/2014/01/Kosovo_Multimodal-Transport-Strategy-2012-2021.pdf

² Core Transport Network and in the South-East Europe Transport Observatory (SEETO).

³ EIB Transport Lending Policy (<http://www.eib.org/infocentre/publications/all/eib-transport-lending-policy.htm>) and EBRD Strategy for Kosovo* (<http://www.ebrd.com/downloads/country/strategy/kosovo-strategy.pdf>)

⁴ EIB Framework Agreement with Kosovo*

(<http://www.kuvendikosoves.org/common/docs/ligjet/Law%20on%20ratification%20of%20Agreement%20between%20Kosova%20and%20European%20Investment%20Bank.pdf>)

also links Pristina, via Pejë (an administrative and economic centre of Kosovo's western region), to route 4 in the Eastern part of Montenegro.

The Route of the Project Motorway Kijevë – Klinë – Zahaq, is shown in Figure 2 below.



Figure 2 Section of Route 6 B, motorway Kijevë – Kline – Zahaq

The EBRD has determined that the Project is a Category “A” Project according to its Environmental and Social Policy (ESP 2014)⁵, thus requiring a participatory ESIA process. Similarly, EIB has acknowledged that the Project requires a full ESIA, as defined in its Environmental and Social Handbook^{6,7}. EIB and EBRD are working with the MI to ensure that the Project’s environmental and social risks are appraised and managed in accordance with their Policies.

This Non-Technical Summary (NTS) describes the Project⁸ and summarises findings of the environmental and social investigations conducted and the risks identified. In addition, it presents knowledge gaps and requirements for the ESIA update upon a design change management process. A Stakeholder Engagement Plan (SEP) has been developed for the Project describing the planned

⁵ <http://www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html>

⁶ http://www.eib.org/attachments/strategies/environmental_and_social_practices_handbook_en.pdf

⁷ VOLUME II: EIB ENVIRONMENTAL AND SOCIAL PRACTICES AND PROCEDURES.

⁸ The Project is currently developed at the level of Conceptual Design. Next stages will include the development of Preliminary and Detailed Design.

stakeholder consultation activities and engagement process. A Land Acquisition and Resettlement Framework (LARF) has also been developed to set out MI's commitments to national and EIB/EBRD land acquisition related requirements. An Environmental and Social Action Plan (ESAP) has been developed for the Project to assure Project activities will be in line with the EBRD's Environmental and Social Policy (ESP 2014) and Performance Standards (PRs). Project preparation documents, including the Environmental and Social Impact Assessment (ESIA), NTS, ESAP, SEP and LARF, are published on the MI website (<http://mi-ks.net/en/information>).

1.2 Background

1.2.1 Rationale of the project

Kosovo* is aspiring for EU membership, and is engaged in the development of its national road network in conjunction with plans adopted by the EU, such as the Trans-European Network Transport (TEN-T) network development plans up to 2020. EU transport development plans call for the development and improvement of multimodal corridors to accept anticipated increases in transport (such as an anticipated increase in freight transport of more than 2/3 by 2020), and to reduce the density of traffic flows.

The major transport axes in Kosovo* are shown in Figures 1 and 2 above. The network is linked to the Pan-European Corridors (Corridor VIII/east-west and Corridor X/north-south), and the Trans-European networks. The motorway section which this Project will develop is connecting to corridors X⁹ and VIII¹⁰. The Project is also part of the Kosovo* Spatial Plan. The development of the Route 6 B will connect the eastern and western parts of the country, and will improve cross-border links of Kosovo*, Serbia and Macedonia with Montenegro. Connectivity of these countries with Albania will also improve.

The rationale for the project also includes:

- The existing traffic flows (i.e. AADT 11,549 at Zahaq - entrance to Pejë) already exceeded the threshold level for highways; projected traffic flows show increases of 41.8 % and 37.0 % in 2020 and 2035 respectively. The Project will reduce traffic congestions;
- 20 settlements along the Existing alignment are affected by exceedance of noise levels and reduction in air quality. Measured Noise limits are found to be outside the defined limits; measured maximum values of PM₁₀ are also above the allowed thresholds; the average values of all measured parameters, however, were found to be within the allowed limits. Reduction of air pollutants` emissions and traffic noise along the existing road N9 is expected, due to the transfer of the main traffic to the new motorway.
- A poor separation of different traffic forms is found in and outside settlements. In many settlements bisected by the road N9 route, no separation exists between the road and pedestrians' areas, exits to residential and commercial buildings, parking lots etc. The Project will contribute to a significant improvement of road safety.
- Reduced travelling time and improved access to services and facilities across Kosovo is foreseen. The motorways will also offer rest and relaxation as well as facilities for refuelling to the passengers on longer distances.

⁹ Corridor X runs from Salzburg – Ljubljana – Zagreb – Belgrade – Nis – Skopje – Veles – Thessaloniki

¹⁰ Corridor VIII runs from Durrës - Elbasan - Skopje - Sofia - Plovdiv - Burgas - Varna.

1.2.2 Project Development and Planning History

The Spatial Plan of Kosovo* (2005 – 2015), aims to connect Kosovo to the main road corridors of the region and the rest of Europe and strengthen internal traffic connections. Route 6 and 7 are considered of prime importance to the Government of Kosovo* as they constitute the main links to the neighbouring capital cities and to the regional transport network in South East Europe. At the same time, these Routes connect main cities and economic centres within other settlements in Kosovo.

The Project has been considered by previous planning activities, including: Feasibility Study for developing Routes 6 and 7 (COWI, 2006); Detailed Designs for upgrading sections of the road N9 Kijevë-Dollc¹¹ and Klinë -Pejë¹². The Detailed Designs presented an extension of the existing road N9 and its conversion into a motorway with a 2x2 lane profile. An offline solution was proposed for the section starting near Kijevë and connecting, after 6,2 km, to the existing road N9. The route deviated from the existing road N9 Alignment to avoid sensitive areas (existing buildings and cultural heritage sites).

In 2016 a Pre-Feasibility Study was developed to analyse, among others, the comparative advantages and disadvantages of four alternative Alignments, including those defined by the Detailed Designs in 2010 and 2014 respectively.



Figure 3 Kosovo* Road network and the Project Approximate Location

¹¹ 2014, SOE 3D Project, Pristina

¹² 2010, IDEAL Project Pristina

Details with respect to consideration of alternatives and Route selection are provided below.

1.2.3 Route Selection and Consideration of Alternatives

During the feasibility stage of the project following alternatives have been identified and assessed:

- Zero Alternative (“Doing Nothing” Scenario)
- Widening of the existing road (for which detailed design has been prepared, please see above section 1.3.1, “Project History”),
- Southern Alternative
- North Alternative 1
- North Alternative 2

The purpose of this assessment was to determine, at an early stage in the Project, if the alternative Alignments could provide a high class safe transport, having the capacity to fulfil forecast traffic demand and an optimal environmental and social impact. Four alternative routes were analysed: Existing Alignment (road N9), Southern and Northern Alignment 1 and 2. For offline Alignments it was considered that the current traffic will transfer to the motorway, while the existing road N9 will service the local transport and adjacent properties.

The following criteria have been applied:

- Engineering solution (design speed, structures, flood damage risks etc.)
- Environmental Impact or Mitigation (number of crossings over water courses, area of sensitive habitats, noise and air pollutants` emission)
- Social Impact (number of directly affected settlements, road safety issues, accessibility of services and facilities etc.).
- Compliance with the requirements of EU Regulation 1315 (i.e. High Class Road)

Each Alignment was compared for its ability to meet the specific criterion:

- Score 1 for meeting the criterion fully.
- Score 2 and 3 for appropriately meeting the criterion
- Score 4 for being totally unable to satisfy, or in any reasonable way partially meet the criterion

The considered section of the Existing Alignment (road N9) is approximately 30km long; Various “hotspots” have been identified within the immediate vicinity of this Alignment, raising environmental and social concerns. These “hotspots” have been identified as per category (residential buildings, businesses, cultural heritage, sensitive habitats etc.). Numerous properties adjacent to the alignment were to be affected by noise and air pollution. Due to lowering speed limits (60kph) in crossed settlements, a high class road will not be achieved. In the absence of an alternative road, access to properties and community services of larger towns will be impeded for the population and vulnerable groups during construction.

The Southern Alignment is an offline solution situated to the south of the existing road; there aren't any “hotspots” found within the Alignment's footprint, however, some flood risks were anticipated for the section running onto the Bistrica e Pejës River flood plain as well as sensitive habitats were to be disturbed.

Both Northern Alignments are running offline (to the north of the existing road); there aren't any "hotspots" found within the Alignment's footprint, the environmental and social risks are considered to be minimal.

The map with all the considered alternatives is shown in Figure 4.



R

ed – online of existing road
Other – offline alternatives

	Avoid – monument, graveyard, church, rare plant
	Mitigate – forest, pasture, river habitat
	School
	Quarries, borrow pits, dump sites
	Buildings, Non-Residential Properties (businesses) likely to be impacted

Figure 4: Road “Kijëvë – Dollc (Klinë) – Zahaq” Alternative Alignments with Indicated Environmental and Social “Hot Spots” for the Existing Alignment

The summary of the assessment of alternatives is highlighted in Table 1 below.

Table 1: Analyses of Alternatives - Summary

	Southern Alternative	Northern Alternative 1	Northern Alternative 2	Existing Design
Acceptable Engineering solution	Yes 1	Yes 1	Yes 1	No 4
Acceptable Environmental Impact or Mitigation	No 4	Yes 1	Yes 1	No 4
Acceptable Social Impact	Yes 1	Yes 1	Yes 1	No 4
Fulfils requirements EU Regulation 1315 ie High Class Road	Yes 1	Yes 1	Yes 1	No 4
Score	7	4	4	16

The two North Alignments (1 and 2) were very similar and therefore they were submerged and refined into one Alignment. The single North Alignment showed significant technical and engineering, as well as environmental and social advantages to the Existing Alignment. Therefore, it was selected as the best alternative.

1.3 Project Description

The Project includes several phases of implementation: design, construction and operation. At the time of publication of this NTS (December 2016), the Project is in the conceptual design stage. The next stages will include Preliminary and Detailed Design, land acquisition and development of tender documents. It is intended that construction will commence in first quarter of 2018 with an anticipated 2.5 years` construction period, meaning that the road should be operational by mid-2021.

The ESIA conducted covers all the phases of the project; an ESIA update is planned along the next design stages to incorporate any changes of the Alignment and associated structures throughout a design change management system to be established. Since this new road is a strategic component of Kosovo* roads` network, a decommissioning phase had not been considered or assessed. Any future decommissioning of the road will require a detailed decommissioning plan which sets out commitments on removal and disposal of infrastructure components, restoration of topsoil and vegetation, and the rehabilitation of the landscape.

1.3.1 Section Kijevë – Klinë - Zahaq

The current N9 road between Kijevë – Klinë - Zahaq is a 2-lane single carriageway pavement over its full length 930km), with a width of between 6.5 m and 7.0 m. The Project (planned motorway) will be a dual-lane carriageway designed to comply with national and international standards and specifications, with a design speed of 100-120 Km/hr. The Alignment of the Project is located at a distance of up to 1.5 km and runs to the north of the existing road N9. The existing road N9 will be used as a parallel and secondary road. No interventions to the existing road are planned within the scope of the Project.

The Project will form part of the east-west Route 6, between Pristina and the border with Montenegro. Pristinë and Pejë are the primary urban centres along the corridor. The motorway crosses the territory of the municipalities Klina and Peje.

The Alignment starts near Kijevë (38 km west of Prishtinë) north to the village of Kijevë and ends at the village of Zahaq, 7 km east of the town of Pejë. It extends through two valleys: Fusha e Kosovës, formed by the Drenica creek, (a tributary of the Sitnica River) and Dukagjini Valley, shaped by the rivers Drini I Bardhe and Bistrica e Pejës. Bistrica e Pejës River runs in parallel with the Alignment. It approaches the river to a distance of 200 m and crosses over its upper terrace at the section Km 16+000 – Km 17+000. The existing road N9 is located in between the new motorway and the river.

The initial section of the Alignment rests upon a flat plateau; the terrain then gradually descends towards the Drini I Bardhe riverbed and then ascends mildly to higher elevations towards Pejë. The difference between the lowest (370 m) and the highest (615m) elevations of the corridor is 245m. The typical land use pattern presents as agricultural and pasture land with some meadows and patches of forest.

Land use on flat and open terrain predominantly centres around agricultural plots and orchards. Pastures and scattered forests are the prevailing feature of hilly terrain. According to available information, most of the land is privately owned.

13 settlements are located along the motorway Project: Dolle, Zajm and Drenoc (bisected) and Drsnik, Jabllanicë, Kliçinë, Leshan, Lugagji, Gllaviqicë, Ramun and Zahaq; the Route also crosses the northern part of the villages Pjetërqi I Epërm, Pjetërqi I Poshtëm; the barrier effect for this section is negligible. The Route crosses one regional (R 104) and several local roads; connecting to the existing road is enabled via interchanges while the continuity of the network of local roads is ensured by either underpasses or overpasses.

A Right-of-Way (or 'road reserve') 20 m each side of the Project will be established with restrictions being placed on certain activities within a buffer of 60 m width.

All Project associated structures are indicative due to the early design stage. Nevertheless, the following main structures are part of the Project:

- bridge near Klinë (km 13+550) over Drini I Bardhe (100 m) (Table 2)
- Viaducts at km 25+000 km 27+000 (to cross over ravines) (Table 2).
- A system of side ditches and 43 pipe / box culverts to drain the pavement surface waters and cater for crossing watercourses is foreseen (Table 2); oil interceptors and/or attenuation ponds at the discharge points to the final recipients are not analysed yet at this stage of the design;
- six grade separated interchanges are planned at chainages km 2+900, km 6+740, km 12+900, km 14+950, km 20+050 and km 28+100 (Figures 5 and 6).
- Overpasses / underpasses are placed at chainages: Km 0+450 (road is branching from the existing road N9 and providing access to a few Residential Properties); Km 3+200 (connects the existing road N9 with the village Uje Mire); Km 3+800 (connects villages Drsnik and Qabiq); Km 9+011 and Km 9+888, (connects quarries which are located at either side of the Route); Km 10+134 (connects the existing road N9 with Drsnik), Km 12+548 (the road connects N9 with Drsnik), Km 13+116 (connects N9 and Perline), Km 13+409 (connects N9 and Klinë), Km 13+924 (connects N9 and Klinë), km 14+486 (connects N9 and Perline) and km 14+955 (N9 and Perline); km 13+380 (links the existing road N9 and Klinë); km 17+126, km 17+287, km 18+597, km 19+423, km 19+792, km 19+928, km 20+272, km 22+368, km 17+712, km 19+225, km 20+650, km 21+301 and km 22+857 (connects the existing road N9 with the network of local roads leading to agricultural properties and the settlements Jagode and Paskalice); Km 23+551, Km 28+431, Km 24+409, Km 25+659, Km 26+366, Km 28+169 and Km 29+635 (connections between the existing road N9 and the properties in settlements Naberjjan and Budisalc) (Figures 5 and 6).

Table 2: Position of bridges, viaducts and culverts along the Alignment

No.	Type of object	Chainage	No.	Type of object	Chainage
1.	Pipe culvert, d=1000mm	Km 0+850	2.	Pipe culvert, d=1000mm	km 18+320
3.	Box culvert, h / b = 3.00 m / 2.00 m	km 1+300	4.	Box culvert h / b = 3.00 m / 2.00 m	km 18+830
5.	Box culvert h / b = 3.00 m / 2.00 m	km 2+200	6.	Pipe culvert, d=1000mm	km 19+170
7.	Pipe culvert, d=1000mm	km 2+600	8.	Pipe culvert, d=1000mm	km 20+070
9.	Pipe culvert, d=1000mm	km 4+400	10.	Pipe culvert, d=1000mm	km 20+650
11.	Pipe culvert, d=1000mm	km 5+130	12.	Box culvert h / b = 3.00 m / 2.00 m	km 21+050
13.	Pipe culvert, d=1000mm	km 5+650	14.	Pipe culvert, d=1000mm	km 21+700
15.	Pipe culvert, d=1000mm	km 5+900	16.	Pipe culvert, d=1000mm	km 21+970
17.	Pipe culvert, d=1000mm	km 6+600	18.	Pipe culvert, d=1000mm	km 22+670
19.	Box culvert h / b = 3.00 m / 2.00 m	km 6+920	20.	Pipe culvert, d=1000mm	km 22+800
21.	Box culvert h / b = 3.00 m / 2.00 m	km 8+520	22.	Pipe culvert, d=1000mm	km 23+450
23.	Box culvert h / b = 3.00 m / 2.00 m	km 12+650	24.	Pipe culvert, d=1000mm	km 24+150
25.	Pipe culvert, d=1000mm	km 12+900	26.	Viaduct, L=250m	km 24+900
27.	Bridge, L=100m	km 13+550	28.	Pipe culvert, d=1000mm	km 25+430
29.	Pipe culvert, d=1000mm	km 14+050	30.	Box culvert h / b = 3.00 m / 2.00 m	km 26+130

No.	Type of object	Chainage	No.	Type of object	Chainage
31.	Box culvert h / b = 3.00 m / 2.00 m	km 14+400	32.	Viaduct, L=450m	km 26+850
33.	Pipe culvert, d=1000mm	km 14+700	34.	Pipe culvert, d=1000mm	km 27+430
35.	Pipe culvert, d=1000mm	km 16+180	36.	Box culvert h / b = 3.00 m / 2.00 m	km 27+770
37.	Box culvert h / b = 3.00 m / 2.00 m	km 16+730	38.	Pipe culvert, d=1000mm	km 28+000
39.	Pipe culvert, d=1000mm	km 17+200	40.	Pipe culvert, d=1000mm	km 28+600
41.	Pipe culvert, d=1000mm	km 17+670	42.	Pipe culvert, d=1000mm	km 28+900
43.	Pipe culvert, d=1000mm	km 17+940	44.	Pipe culvert, d=1000mm	km 29+200
45.	Box culvert h / b = 3.00 m / 2.00 m	km 18+150	46.	Pipe culvert, d=1000mm	km 29+970

Excavated material from cuts balances the quantity of material required for the embankments. Between km 8+000 and km 12+500 the motorway passes through hilly terrain, which requires significant cuttings, particularly in the section km 10+000 to 12+500. This section of the Alignment descends from the hills down to the plain east of Klinë, at a gradient of 5%; the cuttings will be in the order of 40m high. The majority excavated material will be excess to requirements (Cuts=7.600.000,00m³ and Fills =2.700.000,00m³)

The disposal sites for the surplus material are not defined yet and it is expected that, following the geo-mechanical investigations, their locations, accesses, drainage and disposal method will be defined at the Preliminary Design stage.

Existing borrow pits will be used to obtain aggregate for the construction of the road; requirement for new borrow pits will be defined during the Preliminary Design stage. The Contractor will finally select the borrow pit locations during the Detailed Design phase. Approvals for operation of new borrow pits will be applied in line with the Law on Mines and Minerals.

Hydrographical and hydrological analyses have not been conducted in the catchment of the proposed road section for the Drini I Bardhe and Bistrica e Pejës rivers and its tributaries. To reduce flood risk, flood modelling will be carried out for the 50, 100 and 1000 year floods during the Preliminary Design stage, to set the alignment above the 1000-years` flood line.

The Alignment and the indicative locations of associated structures (underpasses, overpasses, interchanges, bridge, culverts and surplus material disposal sites) is shown in Figures 5 and 6.



Figure 5 Outline of the Section Km 0+000-Km17+000



Figure 6 Outline of the Section km17+000-km 31+000

1.4 Construction of the Motorway

The construction schedule shall include the following activities:

- Site Establishment Works: clearance of vegetation; stripping and stockpiling of topsoil; construction of temporary access roads to facilitate excavations for shaping the major cuts; establishment of the construction camp(s) and storage compounds as well as vehicle and equipment maintenance areas; stockpiling aggregate and allocating routes for heavy truck movements;
- Construction of Major Road Elements: bridges and culverts, underpasses/overpasses and interchanges, appropriate traffic management and sediment control; erection of fences;
- Construction of the Motorway: shaping cuts (including blasting activities, where appropriate), construction of embankments, shaping of slopes, execution of bonding layer, execution of the upper wearing course;
- Site Remediation: removal of redundant erosion and sedimentation controls and landscaping (including hydro-mulching and seeding of cuts/fills; establishing fast growing cover crops on leftover surplus material disposal sites).

For the construction, the following materials will be used: gravel, geo-composite, concrete, reinforcement and zinc - plated net, plant seeds and topsoil. The removed topsoil shall be preserved so it can be used for re-vegetation. The fill, the sub-base and the base will be made of gravel mostly obtained from the cuts.

Construction camps will be established outside settlements and will avoid sensitive habitats. There will be at least one Construction Site Manager, Site Engineer and Site Supervisor employed and approximately 40-60 workers will work on the construction of the motorway. The workforce will be managed in accordance with the Kosovo* labour laws and health and safety regulations. The majority of labourers are likely to come from local villages. The total construction phase will take around 2.5 years. Construction is planned to begin in the first quarter of 2018.

1.5 Summary of Environmental, Social Legal and Policy Framework

1.5.1 Kosovo Legal Framework for Environmental and Social Protection

The environmental legal framework within Kosovo* contains overarching laws covering areas for: Environmental Protection, Water, Waste, Nature Protection, Noise Protection, Air Quality, Integrated Prevention and Pollution Control (IPPC) and Cultural Heritage, which transpose the main obligations of the environmental EU Directives.

The key legislation for protection of the environment, is the Law on Environmental Protection (03/L-025). The requirements of the EU EIA Directive 85/337/EEC (as amended by Directive 2014/52/EU) have been transposed within the Law on Environmental Impact Assessment (No. 03/L-214).

With regards to social aspects, there are national laws covering Health Protection, Occupational Health & Safety, Labour Relations, Occupational Safety, Employment, Social Protection, Land Acquisition, Cadastre etc.

The law on Road and Traffic Safety, Law on Roads, Cultural Heritage, Expropriation of immovable properties etc., are of particular interest for the project.

Kosovo* has not been recognised by treaty depositaries as a state that can ratify treaties and international conventions. However, most of the International Conventions with regard to the Environment, Public Participation and Labour issues have been translated in the Kosovo* national legislation.

1.5.2 Summary of ESIA Procedure and Permitting Process

The Environmental Impact Assessment procedure has been referenced into the Law on Environment Protection (Chapter II, Articles 9, Chapter IV, Article 29 and Chapter VI, Article 57) and prescribed on the Law on Environmental Impact Assessment (EIA) (No. 03/L-214). The public disclosure is regulated with the Administrative Instruction for information, public participation and interested parties (No: 09/2011).

The procedures for the EIA approval are defined in Chapter III of the Law on Environmental Impact Assessment (No.03/L-214). EIA procedure includes the following phases: (1) screening; (2) scoping; (3) review of EIA Report and (4) Public Consultation.

The period of Public Consultation, according to the Administrative Instruction on information, public participation and interested parties in the environmental impact assessment procedures (No.09/11) is 30-40 days. The public consultations for the Project will adhere to the principles of EIB/EBRD and will last 120 days.

In regards to the Permitting process, responsible institution is the MESP. It is in charge of issuing various consents, approvals and permits at different stages of the Project planning process such as:

- Environmental Consent (approval of the ESIA Study), in accordance with the EIA law;
- Approval of the Infrastructure Plan, required by the Law on Spatial Planning for the transport infrastructure;
- Water Permit upon bridge construction, opening new mines (quarries) and / or waste disposal sites;

- IPPC permit, required by the Law on IPPC, for newly opened quarries with the capacity of 100,000 tonnes per year (for underground exploitation) or 25 ha (open-pit mining);
- Construction Permit.

In addition, the Independent Commission for Mines and Minerals is in charge of issuing Licenses for operation of new borrow pits.

1.5.3 Legal Framework for Land Acquisition

The procedure of land expropriation and resettlement in Kosovo is regulated primarily by the Law on Expropriation of Immovable Property No. 03/L-139, adopted in 2009, and amended by the Law on Expropriation of Immovable Property No. 03/L-205. The Law outlines the procedure, including remedies, to safeguard individuals from disproportionate interferences with the right to immovable property.

The other relevant laws regulating the expropriation are: Law on Property and Other Real Rights (No. 03/L-154); Law on Amending the Law on Protection and Promotion of Rights of Communities and their Members in Kosovo (No. 03/L-047); Law on the Use of Languages (No. 02/L-37); Law on Anti-Discrimination (No. 2004/3); Law on Gender Equality (No. 2004/2); Law on Spatial Planning (No. 04/L-174); Law on Construction (No. 04/L-110).

EBRD Requirements

Land acquisition for the Project shall be undertaken in line with EBRD's Environmental and Social Policy (20014), Performance Requirement (PR) 5, which covers Involuntary Resettlement and Economic Displacement. According to PR5, people with and without legal title, who are directly affected by the Project, are entitled to compensation. PR5 also requires a process of consultations with the affected people, to ensure that the final agreed price corresponds to the EBRD requirement of replacement value thus enabling the project affected persons to purchase property of similar quantity and quality.

PR5 contains the following four key objectives for land acquisition and involuntary resettlement, which are applicable to this Project:

- All feasible alternative project designs should be explored to avoid or at least minimise physical and/or economic displacement, while balancing environmental, social and financial costs and benefits;
- Adverse social and economic impacts from land acquisition or restrictions on affected persons' use of and access to land should be mitigated by: (i) providing compensation for loss of assets at replacement cost; and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and informed participation of those affected;

- To improve or, at a minimum, restore the livelihoods and standards of living of displaced persons and standards of living of displaced persons to pre-project levels, through measures that can be wage-based and/or enterprise-based, so as to facilitate sustainable improvements to their socio-economic status;
- To improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites

1.6 Stakeholder Engagement Activities during the ESIA development

Interaction with the local government /affected municipalities took place at several occasions. and for two main purposes:

- Introducing the Project to authorities and general public and collecting their views
- Gathering relevant information on Baseline Conditions of environmental and social resources.

The interaction with stakeholders (2015 and 2016) included the following:

- Presentation of the Project to the Mayors and relevant public administration of affected municipalities (Klina and Peje), May / June 2015;
- Presentation of the Project to national authorities (Ministry of Environment and Spatial Planning, Kosovo Environmental Protection Agency, Institute of Hydrometeorology and Ministry of Culture, Youth and Sport), May / June 2015;
- Workshop on Potential Project Alternatives, October 2015;
- Consultations with the regional employment centres in Klina and Peja, December 2015;
- Survey of households and businesses, aiming to supplement statistical information on affected communities;
- Workshop on Considered Project Alternatives and Preliminary Environmental and Social Impact Assessment, (Pre-Feasibility stage), February 2016;
- Scoping Workshop, to present the Project, considered alternatives and the scope of Environmental and Social Impact Assessment (ESIA) to the identified national and local stakeholders (November 2016);

During the period of March-May 2016 the social survey was conducted. At the time when the survey was designed, there was no final decision on the preferred alternative so the survey was undertaken to gather data on both alternatives.

The target groups (covering 335 representatives of affected communities) were the following:

- Households of the affected settlements for two alternatives (existing road N9 and Northern Alternative) separately
- Businesses located in the footprints of both alternatives
- Representatives of affected Settlements

All previous stakeholder engagement activities fed into the preparations of the Scoping Workshop. The objectives of the scoping workshop were to:

- To introduce the Project and initial findings on Environmental and Social Baseline Conditions;
- Understand the local circumstances regarding the social and economic development of the region / municipalities and opportunities for further development after the Project implementation;
- Discuss the possible environmentally sensitive areas along the motorway corridor and any “hot” environmental issues already identified earlier; and
- Discuss the best suitable consultation methods and ways in which the public can participate in open, proactive manners.

The stakeholders who attended the Scoping Workshop were supportive to the Project. Some concerns were raised with regard to ensuring connectivity of planned roads in the Municipality of Klinë to the motorway and the road N9. During the next stages it will be assured that the detailed design will align the existing and planned roads so as to enable continuous traffic flows in the area.

A Stakeholder Engagement Plan (SEP) has been prepared to identify the key project stakeholders and plan for stakeholder engagement activities throughout the project life. Stakeholder engagement will be implemented as an ongoing process including public disclosure and consultation of appropriate information so as to enable meaningful consultation with stakeholders and potentially affected parties. They will be able to raise comments or complaints in line with the procedures set out in the SEP.

The responsible person for the implementation of the Stakeholder Engagement Plan is:

Ministry of Infrastructure – Kosovo*,

Mr Rame Qupeva, Head of Road Infrastructure Department

Address: Ex-Germia Building,

10000, Prishtina,

Republic of Kosovo

E-mail: mi.info@rks-gov.net

Tel/fax: +381 (0)38 211 494

Tel.: +381 (0)38 200 28 ext. 505

MI will consider complaints, and will monitor the implementation of the grievance mechanism and draft appropriate reports which will be made publicly available on its website.

A separate grievance mechanism will also be established for the employees of construction companies.

1.6.1 Land Acquisition and Resettlement Planning Process

A Land Acquisition and Resettlement Framework (LARF) has been prepared. It sets out the commitments of MI relating to land acquisition, resettlement and livelihood restoration which will ensure compliance with both applicable Kosovo* legislation and the requirements of the EIB/EBRD policies outlined above.

The LARF includes a Project description, analysis of expropriation law and policy related to land acquisition, the principles and the course of compensation, an entitlements matrix and information on the consultations process and grievance mechanism.

The detailed information in regards to land acquisition is not available yet at the current Conceptual Design stage. At the Detailed Design level, a separate Land Expropriation Study and Topographical Study will be prepared that will provide exact area and costs of the land intended for expropriation. A detailed census of inventory and a socio-economic study will also be carried out to identify all the affected people, affected property, and to develop a better understanding of the scale and nature of the impacts. Compensations for the residential and non-residential buildings to be demolished (if any) will also be determined. Special attention will be paid to the needs of vulnerable groups. The studies will inform the subsequent preparation of a specific and detailed Resettlement Action Plan (RAP). Land acquisition and resettlement will be carried out in accordance with the RAP.

1.6.2 Present information Gaps and ESIA Update

As stated elsewhere, this ESIA is developed for the Project Conceptual Design. At this stage information needed to assess comprehensively the Baseline Conditions of certain environmental and social resources is not available. During the next stages of the design these gaps will be addressed and additional analyses (studies / surveys) will be carried out.

Present information gaps and the relevant actions to update the ESIA during the next planning stages are presented in Table 4 below.

1.7 Summary of Baseline Environmental and Social Conditions

1.7.1 Environmental Baseline

Setting

The section of the route between km 0+000 and 15+000 spreads through the Drenica Valley. It is a long valley through which the Drenica creek, a tributary of the Sitnica River, flows. The valley forms the north-western part of the Fusha e Kosovës and stretches from the left bank of the Sitnica westward to the border with the Dukagjini Valley. The section of the Route between km 15+000 and 31+000 passes through the Dukagjini plain that begins at the Mokna Mountain in the north and continues down to the Sharri Mountains in the south. Dukagjini region (plain) is formed by the

valleys of the rivers Drini I Bardhe and Bistrica e Pejës. The land use pattern, morphological conditions and visual aspects determined the presence of three types of landscape units: Agricultural landscape on wavy terrain (semi-natural landscape), Agricultural landscape on floodplains (anthropogenic landscape) and Landscape consisting of hilly thermophilous broadleaf forest (semi-natural and natural landscape). An overall medium sensitivity is attributed to these landscapes due to the evident landscape modification by anthropogenic influence.

Biodiversity

Both natural and anthropogenic habitats are present along the route. A classification of habitats and mapping was conducted using the standard EUNIS¹³ criteria (Figure 7).

The natural and semi natural habitats are: **Thermophyllous forests of Oriental hornbeam and White oak, Grasslands and Meadows, Riparian willow and poplar woodlands**, as well as **Italian and Turkey oak forests; Aquatic Habitats** are presented by **Large rivers**.

Anthropogenic habitats are: **Agricultural land, Abandoned Arable Land, Ruderal Vegetation, Orchards, Black Locust's (Robinia pseudoacacia) stands, Mixed stands of native and introduced tree species, Lines of trees, Settlements and industrial sites**.

The first section (Kijevo-Klinë) is characterized by dominance of agricultural land with scattered patches of Italian and **Turkey oak forests, Oriental hornbeam and White oak**. The second section (Klinë -Pejë) is dominated by agricultural land with **Italian and Turkey oak forest patches and poplar and willow woodlands** in the Plain of Bistrica River (Bistrica e Pejës). Human settlements and business are present in both sections.

There aren't any protected or designated areas located within the project corridor. There is only one monument of nature which is found within the corridor of 2x500 meters measured from the motorway axis. It is single tree which is known by the authorities in charge of the project. It is not expected that the motorway can impact this monument of nature either during the construction activities or operation.

¹³

<http://eunis.eea.europa.eu/habitats.jsp>

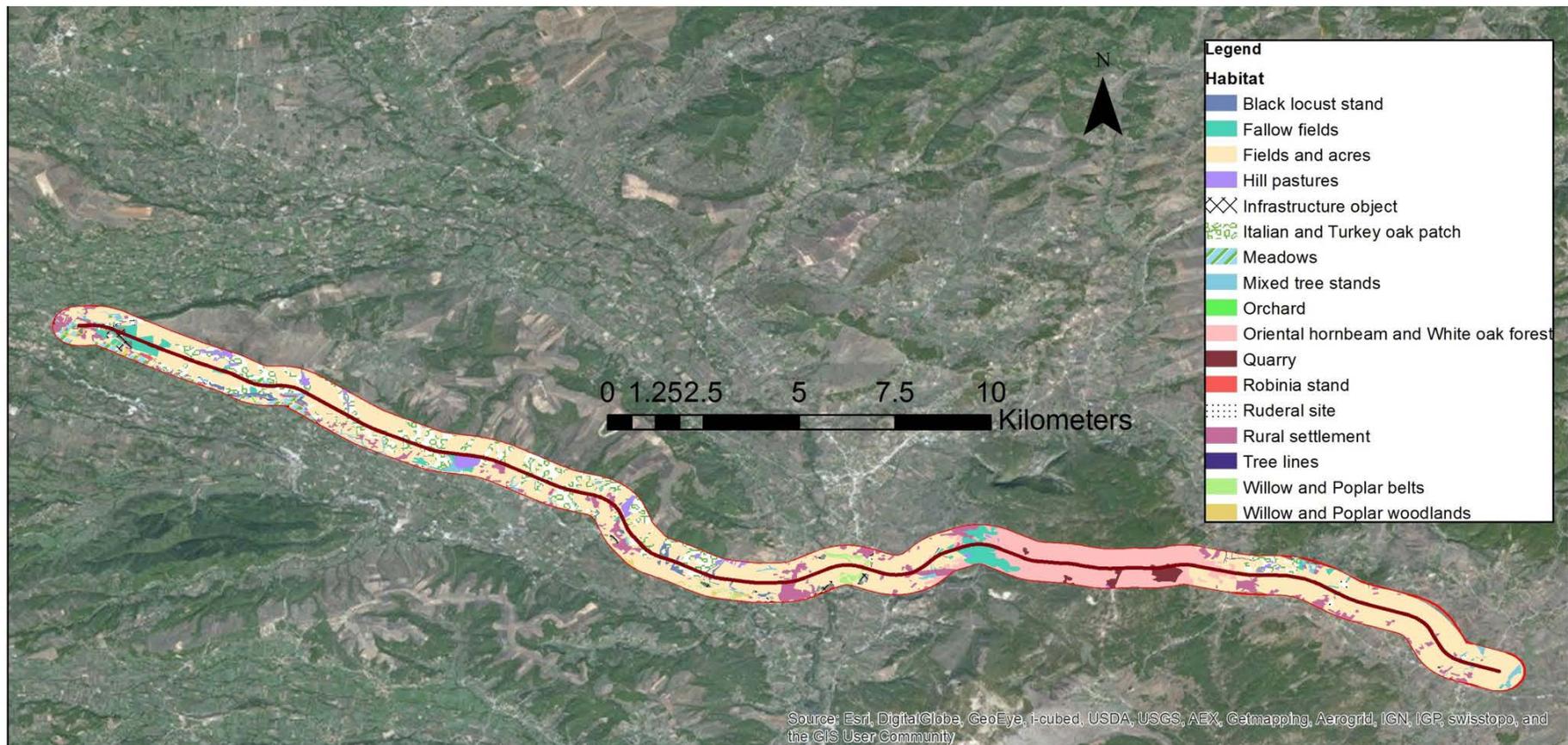


Figure 7 Overview of habitats within the Project Corridor

Sensitive habitats identified along the route are Riparian willow and poplar woodlands. The exact area of their potential destruction is not known. During the next design stages considerable efforts will be made to avoid and/or minimise their destruction.

Water Resources

Drini I Bardhe River is of good quality at the source, but it deteriorates in the downstream sections. At the confluence of Klinë River, which is located 1km upstream of the crossing points of the motorway and the Drini I Bardhe River, the water quality has already worsened. At the monitoring stations Drini I Bardhe-Klinë and Drini I Bardhe-Gjonaj, allowed limits for IV class have been exceeded for COD-Cr, Ammonium NH₄-N and Orthophosphate (in 2013 and 2014). This situation continues down to Vllashnje at the point of flow into Bistrica i Prizrenit¹⁴. The main polluting source is the urban wastewater and to a lesser extent diffused pollution from agriculture.

Groundwater quality in the Project area is not monitored at present. A significant share of the affected population is supplied with potable water from private wells, (which are located in the south of the Alignment); therefore, groundwater is highly sensitive to run-off discharge from the carriageway. A survey will be executed at the Preliminary Design stage to identify the population using private wells for water supply. It shall be coupled by sampling of drinking water and the samples will be checked against the parameters set in the Administrative Instruction of Kosovo for the quality of drinking water.

Air Quality and Noise

Baseline air quality and noise levels have not been measured in the Project area. Instead, air pollution dispersion model ImmProg2000¹⁵ and a Traffic Noise Screening (TNS) procedure, that is based on the computerized Federal Highway Administration's (FHWA) STAMINA2.0 noise prediction model¹⁶, have been applied.

The air pollution dispersion model has been used to identify sensitive receptors; these are found within a buffer of 100m at either side of the alignment.

The TNS screening has generated predicted noise levels, which are found to be in the range of 68-70 dB(A) at a distance of 15m from the Alignment. The screening tool provided information regarding the noise abatement with distance, showing that in 80 m from the Alignment the noise levels will be within the permissible limits for residential areas (55 dB(A)). Consequently, all receptors located within a buffer of 80 m from the center of the road alignment are likely to be exposed to excessive noise levels if no mitigation measures are applied.

¹⁴ Report on the state of water in Kosovo, Pristina 2015, Ministry of Environment and Physical Planning

¹⁵ <http://www.airinfo.ch/ImmProg2000E.htm>

¹⁶ Federal Highway Administration. *Noise Barrier Cost Reduction Procedures: STAMINA2.0/OPTIMA User's Manual*, 1982; U.S. Department of Transportation, Demonstration Products Division, Arlington, Virginia, FHWA-DP-58-1.

Cultural Heritage

All known Cultural Heritage sites have identified (within a buffer of 1 km) and had been mapped out. Their location and distance to the motorway of each site is shown in Figures 8 and 9 below:



Figure 8: Cultural Heritage Sites in the Buffer of 1 km of the Motorway

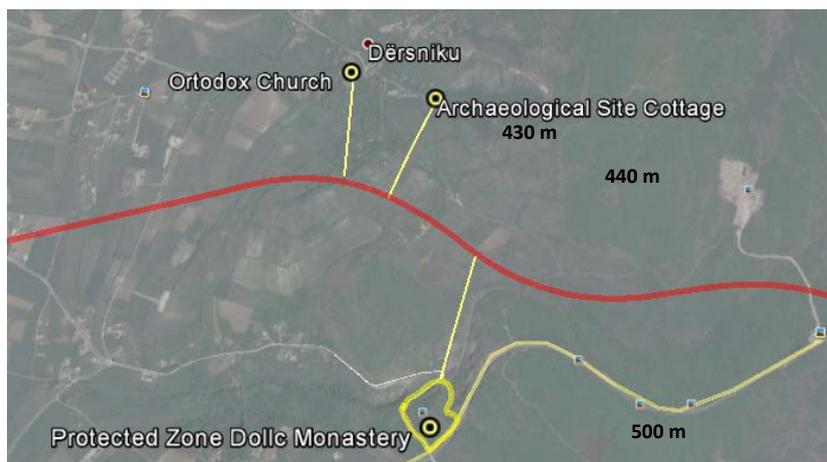


Figure 9: Cultural Heritage Sites in the Buffer of 1 km of the Motorway

None of these will be directly affected by the construction of the motorway. The Contractor will avoid locating Project compounds within or close to these areas.

A reasonable assumption can be made that during the construction activities artefacts of cultural significance will be found. In such cases, all works shall be suspended to enable an archaeological monitoring survey to take place.

1.7.2 Social Baseline

The project is located in the territory of municipality of Klina and Peja. It affects 13 settlements. The Alignment avoids densely populated areas, bypassing the villages Drsnik, Jabllanicë, Kliçinë, Leshan, Lugagji, Gllaviqicë, Ramun and Zahaq. It bisects Dollc, Zajm and Drenoc and crosses a small cluster of houses in the northern part of the village Pjetërq I Poshtëm. The total number of the population residing in the affected settlements is 8,743. Land Use on the project footprint is dominantly Agricultural land with 1,842.5 ha or 58.71% while Artificial areas and human settlements are covering 265.5 ha or 8.46%.

The education level of population¹⁷ is with completed primary and secondary education (11.2% and 14.2%), while the religious affiliation is mostly Muslim (80%) and Catholic (17%). The vast majority of population, i.e. 96.55% is with the Albanian ethnic background whereas 4.45% belong to other ethnic groups; out of the others, Egyptian, Ashkali and Roma are represented with the highest share (2.34%).

The major problem in the majority of settlements is the lack of controlled water supply systems and sewerage. In some municipalities, the local roads are not in good shape.

The source of income for households in the affected areas primarily derives from private employment, family-run agricultural production and seasonal work, to a lesser extent. Households do not commercially exploit wood-harvesting, however it drives down total living costs by providing cheap access to heating material. Unemployment in the affected municipalities amounts to 47%. Of the total number of able-bodied females, 14.23% are actively employed, whereas among males that proportion is 38.85% of the total number. The unemployment rate in the area significantly outstrips the national average which stands at 24.7%. In the last 5-year period, migration of younger inhabitants in villages found along the Alignment section nearer to Pristina has been especially acute. Villages situated near Pejë have not undergone a similar trend.

The majority of businesses are located along the existing road. Commercial establishments which provide service to passengers (car shops, petrol stations, restaurants, motels etc.) are considered to be "avoided communities", due to the fact that the major traffic will transfer onto the planned motorway.

¹⁷ Statistical information has been obtained from the preliminary Socio-economic Survey, which was executed in the first quarter of 2016.

The presence / absence of active businesses in the Project footprint will be validated at the Preliminary Design stage, for the refined Route.

Vulnerable groups identified on the project affected settlements are Unemployed/Job seekers/Long term unemployed, People with debt; Young People under the age of fifteen and People at social assistance. Some people with chronic diseases and with disabilities were also identified. At this point, there is no information about the profile and extent of vulnerability of persons affected by the Project. The presence of Egyptian, Ashkali and Roma ethnic groups in the Project footprint is also yet to be confirmed.

1.8 Environmental and Social Benefits, Impacts and Mitigation Measures

1.8.1 Assessment of Impacts and Benefits

During the ESIA process, the environmental and social impacts were assessed. Assessment topics included: ambient air, water, noise and vibration, biodiversity & habitats and landscape; local communities, employment and livelihoods, access and severance, cultural heritage, community, health, safety and security (including road safety and emergency response) and labour and workforce issues. For each impact, a significance level was determined. The significance of residual impacts that will linger after the application of mitigation measures (residual impacts) is then demonstrated.

The benefits of the Project are summarised below:

- Short-term Local Employment during Construction: The Project could provide short-term opportunities for local employment during the construction period.
- Economic Growth & Improvement of Access: The Project is expected to improve connections with the major economic centres in Kosovo and neighbouring countries, and is an opportunity to stimulate growth and attract further investment.
- Improved education and training for local workforce and improved access of local population to education in Pristinë and Pejë.
- Improved Journey Times & Opportunity to Reduce Rate of Out-Migration: The Project will improve journey times regionally and locally and improve access to employment. This may help reduce out-migration from the local area, which is understood to be a current challenge of the affected Municipalities.
- Improvement of Living Conditions & Community Safety Benefits: The Project will improve the living conditions and community safety of the local communities in area by providing them with improved links to key community services in Pristinë and Pejë. Settlements located along the existing road N9 will see clear improvements in quality of life, air and noise pollution, as well as community safety from the traffic diverting to the new Motorway and bypassing these communities.
- Road Safety Improvements: Road safety improvements will result from better alignment and separation of the Motorway and local traffic.

The potential adverse effects are summarised in the table below along with the proposed key mitigation measures and an assessment of the residual level of effects assuming measures are implemented:

Table 3: Summary of Impacts, Gaps / ESIA update, Mitigation Measures and Residual Impacts` Significance

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
Environment			
Soils and Geology	<p>Construction phase</p> <ul style="list-style-type: none"> • Impairment of soil quality due to introduction of pollutants; • Soil erosion due to clearance of vegetation and earth movements; • Soil loss and degradation due to opening borrow pits and forming excess material disposal sites • Destruction of fertile top soil. <p>Operation phase</p> <ul style="list-style-type: none"> • Impairment of soil quality (soil contamination) due to the introduction of pollutants from road surface runoff; • Soil erosion in cuts / fills devoid of vegetation. 	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> • Soil erodibility and erosion potential; • Locations of borrow pits and surplus material disposal sites; <p><u>ESIA Updates:</u></p> <ul style="list-style-type: none"> • Detailed geo-mechanical investigations <p>Mitigation measures:</p> <p><u>Pre-Construction phase:</u> plans to be developed by the Contractor:</p> <ul style="list-style-type: none"> • Sedimentation and Erosion Control Plan; • Safe Management of Hazardous Materials and Spill Prevention Program, and • Waste Management Plan <p><u>Construction phase</u></p> <ul style="list-style-type: none"> • Minimise the quantity of uncontaminated storm water entering cleared areas • Reduce water velocities • erosion control measures <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> • Develop and implement a Chemical Accident and Spills Management Program 	<p>Negative risk of slight significance reduced further with proper design and management controls during construction and operation.</p>
Water Resources	<p>Construction Phase:</p> <ul style="list-style-type: none"> • Impairment of water quality due to the introduction of pollutants • Leaks and accidental spills of fuel and lubricants from construction machinery • Accumulations of excessive amounts of sediments in watersheds <p>Operation phase</p> <ul style="list-style-type: none"> • Impairment of water quality due to the introduction of pollutants in the runoff • Accidental spills of transported hazardous substances and lubricants • Alteration of flow patterns and sediment deposition during flooding periods 	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> • hydraulic analyses; flood risk • groundwater vulnerability; quality of groundwater used for water supply using private wells <p><u>ESIA Updates:</u></p> <ul style="list-style-type: none"> • hydro-geological analyses and sampling of groundwater quality <p>Mitigation measures:</p> <p><u>Pre-Construction phase</u></p> <ul style="list-style-type: none"> • Proper design of drainage and the bridge over Drini I Bardhe <p><u>Construction phase</u></p> <ul style="list-style-type: none"> • Management and control measures to prevent erosion and discharge of pollutants <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> • Maintenance of the drainage systems 	<p>Negative impacts of moderate significance reduced with proper design and management controls during construction and operation</p>
Air Quality	<ul style="list-style-type: none"> • Construction phase: emissions of dust from working areas, access roads, stockpiles and during loading/unloading activities; emissions from batching plants; exhaust 	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> • Baseline air quality within the Project footprint <p><u>ESIA Updates:</u></p> <ul style="list-style-type: none"> • baseline air quality measurement and modelling 	<p>During construction - Negative impacts of already slight significance reduced</p>

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
	<p>emissions from construction machinery; emissions due to peaks in traffic movements.</p> <ul style="list-style-type: none"> • Operation phase: Emissions of particulates, gases, volatile organic compounds, and other hazardous air pollutants may result from increased road traffic. However, the traffic will increase along the existing road N9 without the Motorway Project. 	<ul style="list-style-type: none"> • update of air quality assessment and mitigation <p>Mitigation measures:</p> <p><u>Pre-Construction phase:</u> plans to be developed by the Contractor:</p> <ul style="list-style-type: none"> • Dust Management Plan • Construction Traffic Management Plan <p><u>Construction phase</u></p> <ul style="list-style-type: none"> • Standard construction measures to reduce dust (wetting down dusty areas, covering vehicles, etc.). <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> • The Project generally moves through-traffic farther from settlements, and may reduce emissions levels at key community receptors. • Air quality monitoring 	<p>further with effective contractor management. Slight significance impacts during operation expected; the impact's significance should be checked during the next design stages.</p>
<p>Noise &Vibration</p>	<ul style="list-style-type: none"> • Construction phase: Increased noise levels from construction plant and activities, especially blasting and rock breaking during excavations. • Operation phase: Noise levels increasing from increased traffic flows within a buffer of 80 meters along the alignment. The Project generally moves through-traffic farther from settlements and may reduce levels at sensitive community receptors. 	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> • Baseline noise within the Project footprint <p><u>ESIA Updates:</u></p> <ul style="list-style-type: none"> • Detailed Noise and Vibration Study: noise measurement and modelling; update of noise assessment and mitigation; land take requirements for noise barriers. <p>Mitigation measures:</p> <p><u>Pre-Construction phase:</u></p> <ul style="list-style-type: none"> • A detailed design of noise barriers • Contractor to develop a Construction Traffic Management Plan <p><u>Construction phase</u></p> <ul style="list-style-type: none"> • Management controls typical for construction work including: notification to local communities, and use of protective equipment • Erection of noise barriers <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> • Maintenance of noise barriers. • Noise monitoring 	<p>During construction - Negative impacts of moderate significance reduced to slight significance with effective contractor management. Moderate significance impacts during operation expected. the impact's significance should be checked during the next design stages</p>

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
Biodiversity	<p>Construction phase:</p> <ul style="list-style-type: none"> Habitats loss (direct destruction) <p>Operation phase:</p> <ul style="list-style-type: none"> Habitats fragmentation 	<p><u>Gaps:</u> there aren't any gaps. <u>ESIA Updates:</u> No update is needed. Mitigation measures: <u>Pre-Construction phase:</u></p> <ul style="list-style-type: none"> The design of the Bridge and Box and Pipe culverts to provide for connectivity of habitats and avoid creating obstacles for migration of animal species The Contractor to develop a revegetation plan <p><u>Construction phase</u></p> <ul style="list-style-type: none"> Contractor access prohibited from all sensitive habitat areas, except what is necessary to create Motorway. Good construction controls built into construction contract. Afforestation activities to be performed in line with No net loss principle, i.e preparation of Revegetation Plan. Riparian vegetation along the Drini I Barde river to be restored <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> A regular control and maintenance of drainage structures shall be conducted to check they do not become clogged with debris or sediments. Regular maintenance activities will also include: protective fence maintenance, removal of food, waste, animal carcasses, etc. from roads, in order to reduce the attraction of scavengers. 	<p>Negative impacts of slight significance further reduced with proper design and management controls.</p>
Landscape & Visual	<ul style="list-style-type: none"> Construction Phase: Alteration of landscape scenery by the presence of construction works, construction camps and other auxiliary facilities Operation phase: Alteration of landscape scenery by the presence of the motorway (cuts and the structures – bridge, viaducts, underpasses, overpasses, culverts etc.). 	<p><u>Gaps:</u> there aren't any gaps. <u>ESIA Updates:</u> No update is needed. Mitigation measures: <u>Pre-Construction phase:</u> Designers to implement the following principles:</p> <ul style="list-style-type: none"> minimising extents of earthworks; reflecting existing landform as much as possible in earthworks; avoiding sensitive habitats; minimising impacts on local hydrological systems; reducing fragmentation of local and regional flora and fauna corridors <p><u>Construction phase</u></p> <ul style="list-style-type: none"> Screening of construction sites at sensitive locations (e.g. near villages), camps and areas, and management of temporary stockpiling locations on site. Shaping of the terrain around altered impacted areas so as to recreate the surrounding land morphology; Vegetating the surplus material disposal sites with autochthonous species adapted to the resulting valley conditions; Any borrow pits opened for the construction of the motorway, will be reinstated at the end of the construction works and replanted; <p><u>Operation Phase</u></p> <ul style="list-style-type: none"> No measures are foreseen. 	<p>Negative risk of slight significance reduced further with proper design and management controls.</p>

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
Cultural Heritage	<p>Construction phase</p> <ul style="list-style-type: none"> • Destruction of non-identified buried archaeological sites; <p>Operation phase</p> <ul style="list-style-type: none"> • Plundering of archaeological sites 	<p><u>Gaps:</u> there aren't any gaps. <u>ESIA Updates:</u> No update is needed. Mitigation measures: <u>Pre-Construction phase:</u></p> <ul style="list-style-type: none"> • All permits to be obtained; • Develop Cultural Heritage Management Plan; • Training to construction workers <p><u>Construction phase</u></p> <ul style="list-style-type: none"> • archaeological monitoring survey to be conducted; • Implement Cultural Heritage Management Plan; <p><u>Operational Phase</u></p> <ul style="list-style-type: none"> • Administrative measures to prevent plundering of archaeological site discovered along the motorway alignment 	<p>Negative risk of moderate significance reduced further with proper management controls to slight significance.</p>
Social			
Land acquisition and property	<p>Construction phase</p> <ul style="list-style-type: none"> • Temporary Impacts on Land Property <ul style="list-style-type: none"> ○ Loss of land ○ Livelihoods Permanent Impact on Land and property <ul style="list-style-type: none"> ○ Loss of housing ○ Loss of land 	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> • Number of people directly affected by the Project; • The size of land to be acquired for temporary and permanent Motorway structures • Locations of the construction compounds <p><u>ESIA Updates:</u></p> <ul style="list-style-type: none"> • Update of the baseline socio-economic surveys; • Update LARF and grievance mechanisms; develop SEP; • Consultation with affected land owners/users including those with legal and no legal rights to the land they own or use/occupy. <p>Mitigation measures: <u>Pre-Construction phase:</u></p> <ul style="list-style-type: none"> • Detailed socio-economic survey; • Development of Expropriation study; • Census; Valuation and Asset Inventory; • RAP and LRP; • Implement Resettlement Compensation Framework <p><u>Construction phase:</u></p> <ul style="list-style-type: none"> • Implementation of Grievance mechanisms • Provide additional assistance for resettlement, if required; 	<p>Negative risk of large significance would reduce to moderate significance with implementation of LARF and SEP</p>
Potential Impacts on Community Health, Safety	<p>Construction phase</p> <ul style="list-style-type: none"> • Impact from the influx of temporary workers • Impact from increased community exposure to diseases 	<p><u>Gaps:</u> there aren't any gaps. <u>ESIA Updates:</u> No update is needed. Mitigation measures: Pre-Construction phase: plans and training programmes to be developed by the Contractor;</p>	<p>Negative risks of moderate significance reduced further with proper management</p>

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
and Security	<ul style="list-style-type: none"> Impact from increased traffic and heavy vehicles on local roads during the construction Safety issues associated to the entrance of non-authorized people on the construction site Operation phase <ul style="list-style-type: none"> Impact to the better access to the larger towns and health services located in larger towns 	<ul style="list-style-type: none"> Health & Safety (H&S) Plan; Emergency Preparedness and Response Plan; Community health and safety educational programme; Training and guidance to workers in how to avoid conflicts with the local community; <u>Construction phase</u> <ul style="list-style-type: none"> Monitor implementation of the plans developed during pre-construction phase; Announce information on project in media for the purpose of traffic control and safety; Control and coordinate traffic flow; Consider avoidance of unauthorized persons' entry in construction site <u>Operational Phase</u> <ul style="list-style-type: none"> Develop and implement community health and safety programme; Undertake public relation activities on dangers of motorway; Publish information on safety performance; 	controls to slight significance .
Community Tensions	Construction phase <ul style="list-style-type: none"> Effects of influxes of workforce into local communities Community reactions due to disturbance arising from construction workers 	<u>Gaps:</u> No gaps identified <u>ESIA Updates:</u> No need for update Mitigation measures: <u>Pre-Construction phase:</u> <ul style="list-style-type: none"> Local Workforce Recruitment Plan Prepare and implement training and guidance for workers; Worker camps will be located outside the communities; <u>Construction phase:</u> <ul style="list-style-type: none"> Strengthen public/administration awareness 	Negative risk of large significance reduced further with mitigation measures to moderate significance .
Access and Severance Effects	Construction phase <ul style="list-style-type: none"> Impacts on access and severance effects Operation phase <ul style="list-style-type: none"> Impacts on access and severance effects 	<u>Gaps:</u> Locations of structures – interchanges, overpasses and underpasses <u>ESIA Updates:</u> <ul style="list-style-type: none"> Socio-economic Survey to assess severance effects; Mitigation measures: <u>Pre-Construction phase:</u> <ul style="list-style-type: none"> Traffic Management Plan; Prepare the plan for signing of the construction area, new directions, ring roads, access roads; <u>Construction phase:</u> <ul style="list-style-type: none"> Implement Traffic Management Plan & Risk Assessment document; Minimise traffic disturbance; Put signs on construction area, new directions, ring roads, access roads; Public notification of any traffic-related concerns; 	Negative risks of moderate significance reduced further with proper design to slight significance .
Economic Impact	Construction phase <ul style="list-style-type: none"> Stimulation of economic growth at local level 	<u>Gaps:</u> Number and legal status of the affected businesses located along the existing road N9 <u>ESIA Updates:</u> Update baseline, impact and mitigation measures for economic impacts,	Positive impact on economy enhanced by

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
	Operation phase <ul style="list-style-type: none"> • Effects on local economy and national economy 	including avoided communities Mitigation measures: <u>Pre-Construction and Construction phase:</u> <ul style="list-style-type: none"> • Inform people in a timely manner about the possible impacts on economic activity <u>Operation phase:</u> <ul style="list-style-type: none"> • Implement support activities for avoided communities (businesses) located along existing N9 such as advertising panels. 	specific measures
Vulnerable Groups	Construction phase <ul style="list-style-type: none"> • Decreased accessibility of services • Temporary Loss of Land Operational Phase <ul style="list-style-type: none"> • Livelihood 	<u>Gaps:</u> <ul style="list-style-type: none"> • Information on the presence of RAE community within the Project footprint and their socio-economic status. • Number and profile of vulnerable people residing in the Project footprint; • Socio-economic status of vulnerable people) directly affected by the Project <u>ESIA Updates:</u> <ul style="list-style-type: none"> • Update Baseline, assessment of impacts and mitigation measures for vulnerable groups; • Update of the baseline socio-economic surveys; • Update LARF, SEP and grievance mechanisms; Mitigation measures: <u>Pre-Construction phase:</u> <ul style="list-style-type: none"> • RAP/LRP; • Communication with representatives of vulnerable groups (update SEP) • Compensation in line with RCF; • Provide additional assistance if required. <u>Construction phase:</u> <ul style="list-style-type: none"> • Undertake measures for land reinstatement; • Continue with additional assistance <u>Operation phase:</u> <ul style="list-style-type: none"> • Undertake public information notices and public awareness activities 	Negative risk of large significance with implementation of mitigation measures is changed to moderate negative significance.
Workforce Issues	Construction phase <ul style="list-style-type: none"> • Workers` safety during construction Operational Phase <ul style="list-style-type: none"> • Workers` safety during operation of motorway 	<u>Gaps:</u> Worker construction compounds to be determined avoiding productive forest or community land <u>ESIA Updates:</u> No Updates Mitigation measures: <u>Pre-Construction phase:</u> <ul style="list-style-type: none"> • Human Resources Policies and training of contractors` managers and supervisors; • Audit of design and implementation of the worker's compound against the checklist in the EBRD & IFC guidance document; • Social Facilities and Services Plan for workers • Accommodation consultation and grievance mechanisms 	Negative risk of large significance with implementation of mitigation measures is reduced to slight negative significance.

Topic	Summary of Impacts	Summary of Gaps / ESIA Updates and Key Mitigation/Management Measures	Residual Impact Significance
		<ul style="list-style-type: none"> • Emergency Preparedness Plan for accidents response <u>Construction phase</u> • Implement the policies, plans and training programs <u>Operation phase</u> • Update the Emergency Preparedness Plan and Safety Program according to the best international practices and carry out regular reporting. 	

1.9 Environmental and Social management and Monitoring

1.9.1 Environmental and Social Management

Measures to manage the environmental and social effects of the Project are included in the ESIA and the Environmental and Social Action Plan (ESAP). The key elements have been summarised up in the table above. MI is required to develop a Commitments Register, to document all design, construction and operation related mitigation measures cited in the ESIA, NTS, LARF, SEP and ESAP documentation, and identify how the commitments are addressed, and which party (e.g. MI, Contractor, third parties etc.) is responsible.

An Environmental and Social Management System (ESMS) will be developed for the construction and operation of the motorway. This will include a Construction Environmental and Social Management Plan (CESMP), which will draw together all the management requirements to minimise disturbance to environmental and social receptors during construction (including habitats, watercourses, land and livelihoods, community relations, etc.). An Operational Environmental and Social Management Plan (OESMP) will be produced to address mitigation and monitoring actions which will continue during road operation.

1.9.2 Environmental and Social Monitoring

Monitoring will form an important part of the ESMS. During both construction and operation, certain activities, indicators and environmental and social resources will be monitored. Pre-Construction monitoring will include levels of noise and air quality at representative road side receptors. Monitoring during construction will include water quality in the Drini I Bardhe and Bistrica e Pejes River, as well as on temporary land take, and indicators of problems from influx of workforce into the area. Operations phase monitoring will include levels of noise and air quality at representative road side receptors, for a period of 2 years' post-construction, and monitoring of all vegetation rehabilitation for 2 years.

Monitoring and management actions for the stakeholder engagement and the land & resettlement planning are proposed within the SEP and LARF. There will also be an ongoing requirement for MI and (during construction) the Contractor to monitor stakeholder, individuals and community grievances and take appropriate management action should trends be identified or key issues occur.

Monitoring reports will be required from the Contractor and Operator during the construction and operational phases. These will be submitted to the relevant inspection authority. The monitoring results will be useful for assessing the long term cumulative effects, if any. If ongoing problems occur, adaptive mitigation measures can be developed and implemented.

1.10 Further Information and Contact Details

Project preparation documents are available on the MI website: (<http://www.mi-ks.net>).

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