

# Environmental Assessment and Review Framework

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October 2015

## AFG: Energy Supply Improvement Investment Program

Prepared by the project preparatory consultant, on behalf of Da Afghanistan Breshna Sherkat of the Government of Afghanistan, for the Asian Development Bank.

## CURRENCY EQUIVALENTS

(as of 21 October 2015)

Currency unit	—	afghani (AF)
AF1.00	=	\$0.0154
\$1.00	=	AF65.52

## ABBREVIATIONS

ADB	—	Asian Development Bank
SC	—	supervision consultant
DABS	—	DA Afghanistan Breshna Sherkat
EA	—	environmental assessment
EARF	—	environmental assessment and review framework
EIA	—	environmental impact assessment
EMP	—	environmental management plan
GFP	—	grievance focal point
IEE	—	initial environmental examination
MEW	—	Ministry of Energy and Water
MFF	—	multitranches financing facility
NGO	—	non-government organization
PMU	—	project management unit
SPS	—	Safeguard Policy Statement
WHC	—	World Heritage Convention

## NOTES

- (i) The fiscal year (FY) of the Government of the Islamic Republic of Afghanistan and its agencies ends on 20 December. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2015 ends on 20 December 2015.
- (ii) “\$” refers to US dollars

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## I. INTRODUCTION

1. **Investment Program.** Afghanistan is globally among the lowest 10% in per capita energy consumption and is a net energy importer. In 2014, more than 80% of its total power demand was met from Iran (17%), Tajikistan (25%), Turkmenistan (12%), and Uzbekistan (27%), with remaining 19% met through indigenous sources.<sup>1</sup> Although significant renewable energy and fossil fuel resources exist, these need to be developed through public and private investments. In 2014, nearly 97% of country's oil needs were imported. Infrastructure deficit in gas sector restricts *identified reserves of 75 billion cubic meters within 150 square kilometers area only*. Power remains a growing portion of total energy consumption and connection rates have increased from 7% in 2003 to 30% in 2014 when demand was 750 megawatts (MW)<sup>2</sup> and power consumption was 3,700 gigawatt-hours (GWh).<sup>3</sup> Energy demand in major cities is growing by 25% every year and by 2032, demand is forecast to reach 3,500 MW and electric consumption at 18,400 GWh.<sup>4</sup> Meeting this exponential increase in demand requires boosting all viable import options in parallel to harnessing domestic resources. The key challenges are: (i) lack of generation capacity, (ii) increasing constraints in transmission and distribution systems, (iii) weak financial management and sustainability of sector entities, and (iv) inadequate corporate governance structures.

2. In this context, the MFF investment program will augment energy trade and regional cooperation, strengthen country's energy infrastructure, increase energy supply to accelerate electrification rate, and improve operational efficiency in the sector. In the power subsector, generation (conventional and renewable), transmission (domestic and regional), and distribution (on- and off-grid) projects are proposed; while wells rehabilitation and gas to power conversion projects are proposed in gas subsector. Current lack of energy supply and demand-supply imbalance in Afghanistan constrains economic growth and opportunities; creates disparities in economic development; and fuels ethnic and regional tensions, insecurity, and discontent.<sup>5</sup> An MFF instead of a stand-alone project is proposed for investment because (i) tranches will be programmatically aligned and sequenced with government's National Energy Supply Program (NESP), (ii) program will be showcased to explore and confirm cofinancing options, (iii) continuity in combining investments in energy infrastructure and nonphysical components for integrated energy sector development will be ensured, and (iii) to allow neighboring countries to develop regional projects for transit and trade into Afghanistan and beyond.<sup>6</sup>

3. **Purpose of the Environmental Assessment and Review Framework.** The investment program, including Tranche 1, is expected to have Category B environmental impacts. Following the ADB's Safeguards Policy Statement (2009) (SPS 2009), this environmental assessment and review framework (EARF) was prepared to mitigate any impacts, should they arise, for future subprojects. The EARF outlines the environmental policy, procedures and institutional requirements to prepare subsequent subprojects, and ensure that

<sup>1</sup> 135 gigawatt hours/million people compared to 540 in Pakistan, 1,340 in India, and 1,300 in Papua New Guinea

<sup>2</sup> Unmet peak demand due to lack of power infrastructure and investment deficit is estimated close to 2,000 MW

<sup>3</sup> Latent demand is estimated at 2,500 MW which remains unserved due to lack of power infrastructure.

<sup>4</sup> ADB. 2010. *Technical Assistance to Afghanistan for the Power Sector Master Plan*. Manila (TA 7637-AFG, for \$1.5 million approved on 6 November 2010).

<sup>5</sup> Asian Development Bank (ADB) provided project preparatory technical assistance for the *Multitranche Financing Facility II: Energy Development 2014-2023*. (TA 8509-AFG for \$1.5 million approved on 20 November 2013).

<sup>6</sup> A matrix showing a comparison between different financing modalities is in Comparison of Multitranche Financing Facility and Project Loan (accessible from the list of linked documents in Appendix 2).

any environmental impacts are mitigated to acceptable levels. The Executing Agencies [EAs] (Da Afghanistan Breshna Sherkat, Ministry of Energy and Water and Ministry of Mines and Petroleum) will be responsible for preparing and implementing all ADB and national safeguards requirements. All such requirements must be submitted to ADB for review and approval prior to finalizing contracts for civil and construction works.

4. On the basis of the existing environmental situation in the investigation area and the technical planning available at this preliminary stage, it is determined that the potential environmental impacts of the proposed sub-projects during design, construction, operation and decommissioning. During the IEE stage, these shall be further studied and classified according to their significance. Alternative routings and options, as well as mitigation and monitoring measures are primarily suggested in this EARF to reduce possible adverse impacts.

## II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

5. The environmental assessment of the sub-projects under various tranches of the MFF Investment Program will be undertaken with in compliance with the ADB's and the national policies, legislation and requirements. This also includes complying with international agreements which Afghanistan is party to.

### A. Afghanistan's Legislative and Policy Framework

6. The following national environmental acts, laws, regulations, guidelines and policies are relevant to the project:

- i. **Environmental Act, 2007.** This act has been promulgated to give effect to Article 15 of the Constitution of Afghanistan and provide for the management of issues relating to rehabilitation of the environment and the conservation and sustainable use of natural resources, living organisms and non-living organisms.
- ii. **Minerals Law, 2010.** The Minerals Law of 2010 governs the ownership, control, prospecting, exploration, exploitation, extraction, marketing, sale, and export of minerals in the territory of Afghanistan. The law provides that all deposits of minerals on or under Afghanistan or in its water courses are the exclusive property of the state. A surface land interest does not include right to minerals. The Ministry of Mines is authorized to grant mineral rights in accordance with the provisions of the law.
- iii. **Water Law, 2009.** Afghanistan's new Water Law became effective in April 2009 and is one component of the country's strategy to integrate its water systems and institutions. The Water Law adopted a river basin approach under which natural river basin boundaries (versus administrative boundaries) govern all aspects of natural resources management and planning. Customary law tends to govern the use of water on private land and in private systems, the resolution of conflicts over water, and water resource conservation. Customary law generally governs allocation of water through the kaerez system, which is constructed and maintained on a community basis.
- iv. **Law on Managing Land Affairs, 2008.** The 2008 Law on Managing Land Affairs sets out definitions for various land types and classifications, requirements for land deeds, and principles governing allocations of state land, land leasing, land expropriation, settlement of land rights, and restoration of lands.
- v. **Draft Rangeland Management Law, 2009.** The Rangeland Law is currently under

development. Its purpose is to create a framework for community custodianship and management of rangeland resources to provide for sustainable use and management of the rangeland resources, to maximize productivity of rangeland resources and to maintain ecological functions and evolutionary processes of Afghan rangelands, conserve soil and water resources, maintain biological diversity, and combat desertification.

- vi. **Draft Forest Law, 2009.** The Draft Forest Law reflects the principles of community based natural resource management enshrined in the Cabinet-endorsed National Strategy for Forests and Rangeland. The draft is currently with the Ministry of Justice for processing.
- vii. **Interim Environmental Impact Assessment Regulations, Draft 2.3.** These regulations govern the process of environmental impact assessment in Afghanistan on an interim basis pending the establishment of the EIA Board of Expert in terms of Article 20 of the Environmental Law and issuing of final regulations. These regulations provide the detailed process of EIA and list the projects into category A and B based on potential impacts.

## **B. Government's regulation on environmental impact assessment**

7. The Government's regulation on environmental impact assessment is based on the Environmental Act of Islamic Republic of Afghanistan (Gazette No. 912) dated 23 Jadi, 1384 (25 January, 2007). The National Environmental Protection Agency (NEPA), as an independent institutional entity, is responsible for coordinating and monitoring conservation and rehabilitation of the environment, and for implementing this Act. Article 16 and 17 of Chapter 3 of the Environmental Act describes the process of preparing a preliminary assessment, an environmental impact statement and a comprehensive mitigation plan to be conducted by the proponent of each project.

8. Article 21 mentions public consultation is required for all the projects. Article 18 describes the approval procedure of environmental impact assessment. The NEPA will appoint an EIA Board of Experts to review, assess and consider applications and documents submitted by the proponent. Acting on the advice of the EIA Board of Experts, NEPA shall either grant or refuse to a grant permit in respect of the project. A permit granted will lapse in the event that the proponent fails to implement the project within three years of the date of which the permit was granted.

9. Article 19 describes the appeal procedure. Any person may, within thirty (30) days of the granting or refusal of a permit, appeal the decision to the Director-General of the NEPA. The Director-General shall review the appeal application and thereafter make an appropriate decision. Should the appellant wish to appeal the Director-General's final decision, the matter shall be referred to the relevant court.

10. **Administrative Guidelines for the Preparation of Environmental Impact Assessments, Draft 2, March 2007.** These guidelines are in draft form and have been prepared by NEPA in coordination with UNEP. The purpose of guide-lines is to provide guidance to proponents while undertaking a development project that may have a potential impact on the environment. The guidelines also provide guidance on how public should be consulted and defines the roles and responsibilities of various stakeholders in the process.

**C. Environmental Impact Assessment Policy – “An Integrated Approach to Environmental Impact Assessment in Afghanistan”, November 2007.**

11. NEPA with the assistance from UNEP has developed the EIA Policy of Afghanistan. The policy stipulates energy sector guidelines to the project proponents to integrate EIA in the process of development and the procedures to address environmental consequences and involve necessary institutions in the process of project implementation.

12. **National Environment Strategic Documents.** These include (i) The Millennium Development Goals: Vision 2020; (ii) The Afghanistan Compact; (iii) The Afghanistan National Development Strategy (ANDS 2008-2013), and (iv) The National Environment Strategy.

**D. ADB Safeguard Policy Statement (2009) Requirement**

13. The SPS 2009 consists of three operational policies on environment, indigenous peoples, and involuntary resettlement. This policy provides the scope, triggers, and principles to avoid, minimize, or mitigate adverse environmental and social impacts, including protecting the rights of those likely to be affected marginalized by the development process.

14. The environmental requirements of SPS 2009 aim to ensure project environmental soundness and sustainability, integrate environmental considerations into the project decision-making process. The principal objective is to conduct an environmental assessment for each proposed project to identify potential impacts, and then mitigate the negative impacts. The proposed mitigation measures, monitoring and reporting requirements, institutional arrangements, schedules, cost estimates, and performance indicators are documented in the environmental assessment report. The ADB requires environmental assessment of all project loans, program loans, sector loans, sector development program loans, financial intermediation loans, and private sector investment operations. Environmental assessment is a process rather than a one-time report, and includes necessary environmental analyses and environmental management planning that take place throughout the project cycle.

15. Each subproject is first categorized through ADB’s Rapid Environmental Assessment (REA) Checklists (Appendix 1<sup>7</sup>) that enable to identify potential risk/impacts of the subprojects and determine the appropriate extent and type of environmental assessment an early stage of project cycle. According to the findings of the REA checklist, the project will be categorized as A, B, or C. The definitions and reporting requirements of the environmental categories are summarized below.

**Table 1: ADB Environmental Categories**

<b>Category</b>	<b>Project Impact</b>	<b>Reporting Requirement</b>
A	A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works.	environmental impact assessment (EIA)
B	A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These	initial environmental examination (IEE)

<sup>7</sup> Appendix 1 includes several REAs for different types of potential subprojects.

	impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects.	
C	A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts.	No environmental assessment is required although environmental implications need to be reviewed.

16 **Screening and Categorization.** For Category A and B subprojects, SPS requires conducting an environmental assessment to identify potential direct, indirect, cumulative, and induced, transboundary and global impacts and risks (including climate change) to physical, biological, socioeconomic, and physical cultural resources in the context of the project's area of influence.

17. **Alternatives.** SPS requires that alternatives to the project's location, design, technology, and no project alternative be examined.

18. **Impact mitigation.** SPS requires to avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management, and document the proposed mitigation measures, environmental monitoring and reporting requirements, institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators in the Environmental Management Plan (the report structure outlined in Appendix 1 of the Safeguard Policy Statement).

19. **Public consultations.** The requirement of the SPS is to carry out meaningful consultation with affected people and facilitating their informed participation. It is necessary to ensure women's participation in consultation, and involve stakeholders, including affected people and concerned nongovernment organizations, early in the project preparation process and ensure that their views and concerns are made known to and understood and taken into account. It is also required to establish a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.

20. SPS requires that the environmental assessment and presentation of the EMP is to follow the report structure outlined in Appendix 1 of the Safeguard Policy Statement. For both Category A and Category B subproject the IEE or EIA consists of 11 sections:

- Executive Summary;
- Policy, Legal and Administrative Framework;
- Description of the sub-project;
- Description of the Environment;
- Anticipated Environmental Impacts and Mitigation Measures;
- Analysis of Alternatives;
- Information Disclosure, Consultation, and Participation;
- Grievance Redress Mechanism;
- Environmental Management Plan;

- Conclusions and Recommendations.

21. Additional ADB guidelines are relevant for the subprojects:

- Operations Manual (OM) with relevant Bank Policies (BP), March 2010;
- Public Communications Policy: Disclosure and Exchange of Information, 2011.

22. Other relevant international guidelines include (i) IFC Environmental, Health, and Safety Guidelines for Electric Power Transmission and Distribution, April 2007; (ii) ICNIRP Guidelines for Limiting Exposure to time-varying Electric, Magnetic, and Electromagnetic Fields (UP TO 300 GHz) (International Commission on Non-Ionizing Radiation Protection); (iii) CIGRE 1998: High Voltage Overhead Lines – Environmental Concerns, Procedures, Impacts & Mitigation.

### C. Institutional Framework in Afghanistan

23. The primary Executing Agency (EA) will be DABS, the National Power Utility. This and other Central Government institutions potentially linked to the Project and the implementation of the EMP are described below.

- i. **Da Afghanistan Breshna Sherkat (DABS).** DABS is an independent and autonomous company established under “The Corporations and Limited Liabilities Law of the Islamic Republic of Afghanistan (IROA)”. DABS is a limited liability company with all its equity shares owned by the Government of Afghanistan (GoA). The company was incorporated on 4th May 2008 (15 Saur 1387) and replaces Da Afghanistan Breshna Moassasa (DABM) as the national power utility. DABS will operate and manage electric power generation, import, transmission, and distribution throughout Afghanistan on a commercial basis. DABS is the Executing Agency (EA) of the Project.
- ii. **Ministry of Energy and Water (MEW).** In supporting the socio-economic growth of Afghanistan, the MEW is responsible for preparing and managing national policies of the energy sector with the exception of those management or implementation policies that are assigned to the yet-to-be established Afghanistan Energy Regulatory Authority (AERA) by the Electricity Law. The guiding and development direction of the planned energy sector of Afghanistan is subject to the policies under this law.
- iii. **National Environmental Protection Agency (NEPA):** NEPA’s goal is “to protect the environmental integrity of Afghanistan and support sustainable development of its natural resources through the provision of effective environmental policies, regulatory frameworks and management services that are also in line with the Afghanistan Millennium Development Goals (MDGs)”.
- iv. **Other Central Government institutions.** These would include (i) Ministry of Rural Rehabilitation and Development; (ii) Ministry of Agriculture, Irrigation and Livestock; (iii) Ministry of Mines and Petroleum; (iv) Afghanistan National Disaster Management Authority; (v) Central Statistics Office; and (vi) Department of Meteorology.

- v. **Civil Society Organizations.** Save the Environment Afghanistan (SEA) is Afghanistan's only major grassroots and Afghan-managed conservation organization. SEA (then SAVE) was active in environmental issues during the civil war when there was no active government involvement in environmental issues. SEA's mission is protection of the environment, sustainable resource utilization, conservation of biodiversity and integrated development of natural resources. SEA is member of IUCN, IUFRO (The Global Network for Forest Science Cooperation) and APAFRI (Asia Pacific Association of Forestry Research Institutions) and works closely with the International Crane Foundation, the World Wide Fund for Nature (WWF), the International Centre for Integrated Mountain Development (ICIMOD), the International Snow Leopard Trust and other environmental organizations (source: Afghanistan's Fourth National Report to the Convention on Biological Diversity (2009).
24. Afghanistan has ratified a number of international agreements and conventions relating to the protection of the environment and biodiversity.
- i. The **Ramsar Convention on Wetlands**, signed in Ramsar, Iran in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Afghanistan is currently not a Contracting Party to the Ramsar Convention.
  - ii. The **World Heritage Convention (WHC)** is an international agreement that was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1972. It is based on the premise that certain places on earth are of outstanding universal value and should therefore form part of the common heritage of mankind. The Convention seeks to identify and safeguard the world's most outstanding natural and cultural heritage. Afghanistan became a Party to the Convention in March 1979.
  - iii. The objective of the **Convention to Combat Desertification** (UNCCD, Paris, 1994) is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/ or desertification. Afghanistan signed the UNCCD in 1995 and the Convention entered into force in December 1996.
  - iv. The United Nations Framework **Convention on Climate Change** (UNFCCC) sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. Afghanistan signed the UNFCCC in June 1992. The Transitional Authority ratified the Convention in September 2002 and the Convention entered into force in December 2002. The Kyoto Protocol is an extension to the Convention adopted in 1997 that outlines legally binding commitments to emission cuts. Afghanistan has yet to accede to the Kyoto Protocol.
  - v. The **Convention on International Trade in Endangered Species** (CITES) is an international agreement between governments which came into force in 1975. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Afghanistan acceded to CITES on 30 October 1986 but has not been actively implementing the Convention.
  - vi. Afghanistan signed the **Convention on Biological Diversity** (CBD) in 1992 and ratified it in 2002. Afghanistan submitted the Fourth National Report to the CBD Secretariat in 2009.

- vii. Afghanistan is not a Party to the Cartagena Protocol on Biosafety, a supplementary agreement to the CBD. Afghanistan does not currently consider biosafety to be a significant issue relative to others challenges facing the country (source: Fourth National Report to the CBD Secretariat, 2009)

### III. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES OF THE INVESTMENT PROGRAM

#### A. Scope and Impact of Subprojects

25. The investment program will involve projects in power generation (conventional and renewable), transmission lines (domestic and regional), and distribution networks (on- and off-grid) projects; gas wells rehabilitation and gas to power conversion projects. These activities will be carried out in greenfield sites as well as within the existing neighborhoods, and could involve major civil works.

26. Impacts of the construction of projects listed above can be separated in impacts during design, construction, operation and decommissioning phase as well as in permanent and temporary impacts. This section presents a brief description of the areas expected to be mostly impacted by the subprojects. The IEE shall include a more detailed listing, description and classification of the potential impacts.

27. **Design Phase.** Impacts of the line routing on biological, human and physical features of the area can be detected early in the process, i.e., during the design phase of the subprojects. The crossing of the transmission lines or the placement of structures (towers, substations) on Cultural Heritage Sites, Protected Areas, Wetlands, Forest Lands, and Special Areas for protecting biodiversity will be decided during this stage. This is also the stage where these impacts may be avoided by introducing necessary and feasible changes to the line routing and siting of structures.

28. **Construction Phase.** Impacts of the line routing on biological, human and physical features of the area can be detected early in the process, i.e., during the design phase of the subprojects. The crossing of the transmission lines or the placement of structures (towers, substations) on Cultural Heritage Sites, Protected Areas, Wetlands, Forest Lands, and Special Areas for protecting biodiversity will be decided during this stage. This is also the stage where these impacts may be avoided by introducing necessary and feasible changes to the line routing and siting of structures.

29. **Operational Phase.** During operation, the expected negative impacts are mostly on the community and occupational health and safety. For the population living nearby the poles and the transformer stations and for the maintenance workers, the higher risks are of electrocution and falls. For the inhabitants of the project area, this might happen due to attempts of establishing illegal connections; for the maintenance workers these risks (lower than for the community) are associated to their specific maintenance tasks. The physical environment is expected to be affected during the maintenance works the same way as during construction, although in a smaller scale (fewer interventions are needed and in smaller areas). Additional risks are posed by possible leaking oil from the transformers. For the fauna and the flora no significant impacts are expected during the operation.

30. **Positive Impacts.** Positive impacts are expected for the local economy during the construction phase. The recruitment of local workforce for undertaking of non-specialized works (excavations, housekeeping, cooking, etc.) allows the augmentation of the income of the families in the project area, even if temporarily. During operation, a series of positive impacts in the local economy is expected due to the improved access to energy (incl. increased stability of the electricity supply and increased efficiency / reduction of transmission losses in the electricity network): more safety, improved opportunities to develop handicrafts and SMEs (small and medium enterprises), and more domestic comfort.

## **B. Environmental Categorization**

31. Following the initial environmental assessment (using the REA checklist), Tranche 1 falls into category B as defined by the SPS 2009. The impact on the landscape and physical environment is site-specific. The IEE for the subprojects shall define measures to mitigate or prevent the negative impacts from the subprojects. The ADB safeguards require that the borrower prepares an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. This shall cover the design, the construction, the operational and the decommissioning phases.

32. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Additionally, the contractor will prepare site specific EMPs.

## **C. Potential Environmental Impacts and Mitigation Measures**

33. Some environmental impacts described in this section may arise under the subprojects in Tranche 1 and future tranches. If so, then the corresponding mitigation measures should be designed and implemented as part of the IEE.

34. **Soil erosion and dust emissions.** Earthworks and civil works, if required, can contribute to dust emissions. These activities may involve vegetation clearing, land excavation, and machine operation, which, if not performed carefully, can result in soil erosion. Therefore, it will be necessary to introduce specific mitigation measures to counter the impacts of soil erosion and dust emissions.

35. **Ambient air quality.** Vehicular movement may cause deterioration of ambient air quality. Vehicles which are not in good condition may emit obnoxious discharges (CO, NO<sub>2</sub>, SO<sub>2</sub>, PM). Such discharges can be controlled through in time maintenance. The projects are expected to have short durations. Otherwise, if vehicular movement is required for longer project durations, then it will be necessary to perform regular monitoring during the AMI installation phase.

36 **Noise impacts.** Operation of heavy equipment is not anticipated. However, should any noise-producing equipment be required, noise control measures to bring noise down to an acceptable level will need to be introduced as part of the installation stage mitigation measures. Background ambient noise levels should be measured, and then compared with typical values for noise generated by AMI installation equipment.

37. **Soil and groundwater quality.** The scale of installation activities would not result in any soil contamination by oil and chemical leaks.

38. **Drainage.** It is important to develop mitigation measures to ensure that excavation does not disrupt the natural drainage patterns of the area.

39. **Health and Safety.** Health and safety risks to workers exist due to the electrical equipment. Health and safety policy of DABS should be strictly followed in this regard.

#### **IV. ENVIRONMENTAL CRITERIA FOR SELECTING FUTURE SUBPROJECTS**

40. Potential adverse environmental impacts of future subprojects can be avoided or minimized through carefully selecting the subproject location, design, and route. All subprojects will be screened for likely impacts using ADB's REA Checklist. The subprojects should:

- (i) not disturb any cultural heritage areas designated by the government or international agencies, such as UNESCO, and shall avoid any monuments of cultural or historical importance;
- (ii) not be located within or near the biodiversity core zone of any protected areas such as national parks, nature reserves, or wildlife sanctuaries;
- (iii) avoid clearing of any existing forest resources, and if unavoidable, clearing will be minimized and compensatory planting included in the environmental management plan and budget for each subproject;
- (iv) only involve activities that follow the government's laws and regulations, and will not involve ADB's list of prohibited activities;
- (v) not use Polychlorinated biphenyl (PCB)-based oils in any activity, or otherwise, appropriate disposal plans will be made following national legal requirements; and
- (vi) not likely to be classified as environment category A.

#### **V. ENVIRONMENTAL POLICY FOR THE INVESTMENT PROGRAM**

##### **A. Environmental Mitigation Measures**

41. The mitigation measures for environmental impacts, should they arise during the implementation of the subprojects under future tranches of the investment program, are to be addressed through the appropriate level of environmental assessment which will include an environmental management plan (EMP). The typical format of an EMP is summarized in Appendix 2 as a sample EMP.

##### **B. Responsibilities of Various Agencies**

###### **Executing Agencies**

42. The IEE procedure involves distinct processes, dynamics and different agencies. The

agencies involved in the planning and implementation of resettlement and rehabilitation program are DABS as the EA and the Provincial and District governments. The DABS with the support of the management consultant and the implementation consultant will co-ordinate all activities related to the preparation, implementation and monitoring of the environmental management. All activities will be coordinated with the relevant local government agencies and community shura.

43. The EA for the construction and operation of the transmission line will be DABS. As such, DABS will also have the task to internally monitor the implementation of the EMP. The construction will be carried by the Construction Contractor (CC).

44. DABS is the national, yet commercialized, electric utility, which operates and manages electric power generation (units of over 100 kW), imports, and T&D throughout Afghanistan on a commercial basis. The company remains in a precarious financial state, and in 2008 it had to be rescued from collapse by donors. Improvements in collections and reductions in fuel costs due to higher imports have also contributed to an improvement in its finances. The utility is now organizing itself along the lines of a commercial company. DABS will be responsible for the maintenance of the line and partly for the construction supervision. The Project management office (PMO) will comprise an executive committee, an integratory working group, a project management organisation in the DABS (DABS-CEO). The DABS-PMO will be responsible for the overall technical supervision and execution of the project. The staffing of DABS-PMO will include expertise in project management, electrical transmission engineering, institution and finance, environment, socioeconomic, land acquisition and resettlement aspect. The mitigation measures that are incorporated into the design will be verified by the DABS-PMO before providing technical approvals.

45. NEPA, as an independent institutional entity, is responsible for coordinating and monitoring conservation and rehabilitation of the environment. NEPA will appoint an EIA Board of Experts to review, assess and consider applications and documents submitted by the proponent. Acting on the advice of the EIA Board of Experts, NEPA shall either grant or refuse to grant a permit. A permit granted will lapse in the event that the proponent fails to implement the Project within three years of the date of which the permit was granted. NEPA should also be consulted if complicated issues arise during construction and operation stages.

46. **Subproject selection.** The EAs, as the executing agencies of the subprojects under the investment program, will be solely responsible for implementing the entire environmental assessment and review procedures for selecting additional subprojects. This will include, but not be limited to, ensuring that the subproject selection criteria are strictly adhered to, and submitting the REA checklist to ADB.

47. **Requirements for category B projects.** In case any future subproject is categorized as B, then IEE will be prepared in a timely and adequate manner; environmental monitoring and reporting, and institutional requirements will be fully met; meaningful public consultations will be carried out with the affected local communities, and a grievance redress mechanism will be put in place. The detailed requirements for category B projects are in Appendix 3.

48. The Environment and Social Cells at the PMU at each DISCO (para. 12) will screen the subprojects of each subsequent tranche for environment impacts and will assign a category to each subproject. This category will be submitted to ADB at the time of processing of the subsequent tranches. In the event that subsequent tranches are category B for environment, the Environment and Social Cells will be responsible for environmental management during

the AMI installation and operation phase of that tranche.

### **Project Implementation Consultants and Contractors**

49. Should subsequent tranches be categorized B for environment, the project implementation consultant and contractor will also be required to have full-time environment specialists. The project implementation consultants will in that case then monitor implementation of EMPs and IEEs by the contractors, which will be reported to the EAs in their progress reports.

50. The Construction Contractor will have the responsibilities to implement the EMP during the construction phase and control workers and subcontractors to respect the environmental guidelines according to international best practice. The CC shall also prepare monthly reports including the progress of the implementation of the EMP. The reports shall contain all discrepancies from the EMP and list all EHS relevant incidents and accidents that occur during the implementation of the construction and implementation of mitigation measures. Based on these reports and on own regular construction site audits, the CC together with the PMO will prepare annual performance reports and submit them to ADB.

51. The PIC will be responsible for monitoring the EMP implementation. An external Environmental, Health and Safety Auditor (EHS-Auditor) subcontracted by the PIC will monitor the correct implementation of the EMP according to international best practice. The environmental audit will take place three times during the construction process. The mitigation measures that are incorporated as part of the contract documents will also be verified by the PIC consultant before getting the contract signed between the DABS-PMO and the contractor. The PIC will assist the PMO in supervising the EMP implementation and compiling reports on environmental performance as well as in conducting training for building capacity on EMP implementation.

### **ADB**

52. During the investment program, ADB will (i) review categorization and environmental assessment reports as a basis for subproject approvals; (ii) publicly disclose the IEE (for category B subprojects); (iii) monitor the EMP implementation and due diligence as part of MFF reviews; (iv) provide assistance to EAs, if required, in carrying out its responsibilities and for building capacity for safeguard compliance. ADB is responsible for screening sub-projects to specify ADB's safeguard requirements; undertaking due diligence; and reviewing the borrower's/client's social and environmental assessments and plans to ensure that safeguard measures are in place to avoid, wherever possible, and minimize, mitigate, and compensate for adverse social and environmental impacts in compliance with ADB's safeguard policy principles.

53. ADB is further determining the feasibility of ADB financing; helping the borrower/client in building capacity to deliver the safeguards; and monitoring and supervising the borrower's/client's social and environmental performance throughout the project cycle. ADB discloses safeguard plans and frameworks, including social and environmental assessments and monitoring reports, on its website.

54. If a borrower/client fails to comply with legal agreements on safeguard requirements, including those described in the safeguard plans and frameworks, ADB will seek corrective measures and work with the borrower/client to bring it back into compliance. If the

borrower/client fails to re-establish compliance, then ADB may exercise legal remedies, including suspension, cancellation, or acceleration of maturity, that are available under ADB legal agreements. Before resorting to such measures, ADB uses other available means to rectify the situation satisfactory to all parties to the legal agreements, including initiating dialogue with the parties concerned to achieve compliance with legal agreements.

55. As part of their monitoring actions, ADB will carry out the following:

- (i) Conduct periodic site visits for projects with adverse environmental or social impacts.
- (ii) Review and disclose on ADB website the bi-annual monitoring reports submitted by EAs to ensure that any adverse impacts and risks are mitigated as planned and as agreed with ADB.
- (iii) Work with EAs to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to re-establish compliance as appropriate.
- (iv) Prepare project completion reports that assesses whether the objective and desired outcomes of the EMPs have been achieved, taking into account the baseline conditions and the results of monitoring.

## **VI. Monitoring and Reporting**

56. Monitoring activities during all phases shall ensure that the project complies with the mitigation measures proposed in the IEE, and that the environmental parameters are kept within the legislated standards. Monitoring plans will be made during IEE.

57. **Design Phase.** Monitoring activities during the design or pre-construction phase shall ensure that the process of final line routing complies with the following mitigation measures:

- Avoidance of protected or ecological sensitive areas;
- Avoidance of settlements in ROW to minimize resettlement activities;
- Avoidance of historical and cultural sites;
- Minimization of construction of access roads.

58. Due to the nature of the subprojects, the detailed line routing and selection of the tower sites will be performed by the PIC (Project Implementation Consultant). A strict monitoring by an external expert of re-routing to avoid resettlement and cultural sites is recommended for all line sections. Monitoring includes in addition the control of the adequate implementation of the EMP during detailed design phase, and if the EMP implementation is included in the tender documents and contracts.

59. **Construction Phase.** Internal environmental monitoring will be conducted by DABS-PMO. Monitoring of the EMP implementation will be performed by an EHS (Environment, Health & Safety) Consultant within the PIC contract during construction phase. Monitoring results will be included in the project quarterly progress reports, semi-annual environmental reports during

the construction phase and annual reports after commissioning. The detailed monitoring program will be subject to review and approval by ADB.

60. In addition, construction site audits shall be performed by an international expert to ensure that all requirements as stipulated in this EMP are fulfilled. Such an EHS Construction Site Audit shall be performed three times a year with special focus to the period of performing the detailed land survey. Tasks during the construction phase are the monitoring of environmental performance of contractors with regard to control measures to pertaining to erosion material storage, siting of work site, noise, waste disposal, traffic management, workers safety, protection of physical cultural resources, etc.

61. **Operational Phase.** Environmental monitoring during the operation phase will be performed by DABS. The PMO will no longer exist after construction. Monitoring results will be included in annual environmental reports during the construction phase and in annual reports after commissioning. The detailed monitoring program will be subject to review and approval by ADB. Operation and Maintenance (O&M) practice and environmental effects include soil erosion, soil contamination, surface water and EMFs.

62. During operation, when the transmission line is under full load, it is recommended to measure the electric and magnetic fields under the lowest clearance and at housings located nearby the line (especially in case where houses are located within the ROW). Objective is to show that the internationally accepted permissible limits are not exceeded. Operation phase environmental monitoring will include regular converter station and transmission line inspections to verify compliance with the EMP requirements and with relevant laws and regulations. A budget provision for monitoring of the decommissioning after the life-span of the transmission line (min. 50 years) shall be included in the operation cost.

## Rapid Environmental Assessment (REA) Checklist for Power Transmission Projects

**Instructions:**

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to Environment and Safeguards Division (RSES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Sector Division: 

Screening Questions	Yes	No	Remarks
<b>A. Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
<b>B. Potential Environmental Impacts</b> Will the Project cause...			
▪ encroachment on historical/cultural areas, disfiguration of landscape and increased waste generation?			
▪ encroachment on precious ecosystem (e.g. sensitive or protected areas)?			
▪ alteration of surface water hydrology of waterways crossed by roads and resulting in increased sediment in streams affected by increased soil erosion at the construction site?			
▪ damage to sensitive coastal/marine habitats by construction of submarine cables?			

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> <li>▪ deterioration of surface water quality due to silt runoff, sanitary wastes from worker-based camps and chemicals used in construction?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ increased local air pollution due to rock crushing, cutting and filling?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ chemical pollution resulting from chemical clearing of vegetation for construction site?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ noise and vibration due to blasting and other civil works?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ dislocation or involuntary resettlement of people?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ social conflicts relating to inconveniences in living conditions where construction interferes with pre-existing roads?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ hazardous driving conditions where construction interferes with pre-existing roads?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ creation of temporary breeding habitats for vectors of disease such as mosquitoes and rodents?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ dislocation and compulsory resettlement of people living in right-of-way of the power transmission lines?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ environmental disturbances associated with the maintenance of lines (e.g. routine control of vegetative height under the lines)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ facilitation of access to protected areas in case corridors traverse protected areas?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ disturbances (e.g. noise and chemical pollutants) if herbicides are used to control vegetative height?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ large population influx during project construction and operation that cause increased burden on social infrastructure and services (such as water supply and sanitation systems)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ social conflicts if workers from other regions or countries are hired?</li> </ul>			

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> <li>▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks to community safety associated with maintenance of lines and related facilities?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ community health hazards due to electromagnetic fields, land subsidence, lowered groundwater table, and salinization?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., high voltage wires, and transmission towers and lines ) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</li> </ul>			

## Rapid Environmental Assessment (REA) Checklist for Thermal Station Projects

**Instructions:**

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by the Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

SCREENING QUESTIONS	Yes	No	REMARKS
<b>A. Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
<b>B. Potential Environmental Impacts</b> Will the Project cause...			
▪ impairment of historical/cultural monuments and other areas, and loss/damage to these sites?			
▪ encroachment into precious ecosystem (e.g. sensitive habitats like protected forest areas or terrestrial wildlife habitats?			
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			

SCREENING QUESTIONS	Yes	No	REMARKS
<ul style="list-style-type: none"> <li>▪ aesthetic degradation and property value loss due to establishment of plant and ancillary facilities?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ noise and dust from construction activities?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ short-term soil erosion and silt runoff due to construction?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ fugitive dust during transportation, unloading, storage, and processing of coal, and polluted runoff from coal storage?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risk of oil spills, which could pollute surface and groundwater and soil?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ hazards in gas pipeline operation and gas storage at power plant sites?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ changes in flow regimes downstream of the water intake due to abstraction for cooling purposes?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ pollution of water bodies and aquatic ecosystem from wastewater treatment plant for boiler feed, bleed-off from cooling towers, boiler blowdown and wash-water, and effluent from ash pond?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ air pollution from fuel gas discharged into the atmosphere?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ public health and safety hazards due to solid waste disposal in sanitary landfills (see Matrix of Impacts and Measures for Solid Waste Disposal)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ social conflicts if workers from other regions or countries are hired?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks community safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g. ash pond) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</li> </ul>			

**Rapid Environmental Assessment (REA) Checklist for Solar Energy Projects****Instructions:**

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES), for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
<b>A. Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Physical cultural heritage site			
▪ Located in or near to legally protected area			
▪ Located in or near to special habitats for biodiversity (modified or natural habitats)			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Offshore (marine)			
<b>B. Potential Environmental Impacts</b> Will the Project cause...			
▪ large scale land disturbance and land use impacts specially due to diversion of productive lands?			
▪ involuntary resettlement of people? (physical displacement and/or economic displacement)			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			

Screening Questions	Yes	No	Remarks
▪ noise, vibration and dust from construction activities?			
▪ an increase in local traffic during construction?			
▪ environmental disturbances such as soil erosion, land contamination, water quality deterioration, air pollution, noise and vibrations during construction phase?			
• aesthetic degradation and property value loss due to establishment of plant and ancillary facilities?			
▪ changes in flow regimes of the water intake from surface water or underground wells due to abstraction for cooling purposes?			
▪ pollution of water bodies and aquatic ecosystem from wastewater treatment plant, from cooling towers, and wash-water during operation?			
▪ a threat to bird or bat life from colliding with the project facilities and/or being burned by concentrated solar rays?			
▪ industrial liquid (dielectric fluids, cleaning agents, and solvents) and solid wastes (lubricating oils, compressor oils, and hydraulic fluids) generated during construction and operations likely to pollute land and water resources?			
▪ Soil/water contamination due to use of hazardous materials or disposal of broken or damaged solar cells (photovoltaic technologies contain small amounts of cadmium, selenium and arsenic ) during installation, operation and decommissioning?			
▪ noise disturbance during operation due to the proximity of settlements or other features?			
▪ visual impacts due to reflection from solar collector arrays resulting in glint or glare?			
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ social conflicts between local laborers and those from outside the area?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommissioning?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?			

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"><li>▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</li></ul>			

**A Checklist for Preliminary Climate Risk Screening**

**Country/Project Title:**  
**Sector :**  
**Subsector:**  
**Division/Department:**

Screening Questions		Score	Remarks <sup>8</sup>
<b>Location and Design of project</b>	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?		
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?		
<b>Materials and Maintenance</b>	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?		
<b>Performance of project outputs</b>	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

**Result of Initial Screening (Low, Medium, High):** \_\_\_\_\_

**Other Comments:** \_\_\_\_\_  
 \_\_\_\_\_

**Prepared by:** \_\_\_\_\_

<sup>8</sup> If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.



### ENVIRONMENTAL MANAGEMENT PLAN (SAMPLE)

Project Activities	Type of Impact	Severity & Frequency	Mitigation Measures	Institutional Responsibility	
				Implementation	Supervision
<b>PRE-CONSTRUCTION PHASE</b>					
Cultural properties	Social Impacts  Impact on Mosques, madrasas, graveyards and adjacent sites	Medium  All along the project corridor	<ul style="list-style-type: none"> <li>Construction activities avoid any interference with sensitive sites.</li> <li>In case of unavoidable interference prior notification and consultation needed for consensus on options e.g relocation/rebuilding) or any other form of agreed compensation</li> </ul>	The Executing Agency in bid documents for contractor, Environment Specialist	Executing Agency / DD E&S
Planning site activities	Construction causes danger to workers, locals	Low  During construction	<ul style="list-style-type: none"> <li>Prepare health and safety plan</li> </ul>	Executing Agency Contractor	Executing Agency Contractor DD E&S
Flora	Botanical Impacts  Cutting of trees of different species	Medium  During Construction	<ul style="list-style-type: none"> <li>The sufficient amount of planning shall be done.</li> <li>Effort should be made to save as many trees as possible even if they are young or poll stage. Proper irrigation and maintenance of plants will be done.</li> </ul>	Contractor	The Executing Agency / DD E&S
<b>CONSTRUCTION</b>					
Health and safety at work place	Health risks if work conditions provide unsafe and/or unfavorable work conditions	High  During Construction	<ul style="list-style-type: none"> <li>Obligatory insurance against accidents to work laborers</li> <li>Provide basic medical training to specified work staff, and basic medical services and supplies to workers</li> <li>Work safety measures and good workmanship practices to ensure provision of safety harness, electrical safety Gloves and shoes</li> </ul>	Contractor	The Executing Agency / DD E&S

Project Activities	Type of Impact	Severity & Frequency	Mitigation Measures	Institutional Responsibility	
				Implementation	Supervision
Excavation of earth	Aesthetics, interrupting pathways loss of topsoil, Soil Erosion, loss of vegetation and habitat	Medium  During Excavation	<ul style="list-style-type: none"> <li>Contractor needs to obtain approval from THE EXECUTING AGENCY for excavation and for plan of rehabilitating site after excavation</li> <li>Take off top soil, &amp; reintroduce after end of work</li> <li>As applicable and needed, plantation of grasses and shrubs will be done such as the slope drains, etc. Soil erosion along the road be visually checked as in EMP</li> </ul>	Contractor	The Executing Agency / DD E&S
Clearing site	Damage not restored on departure	High  During construction	<ul style="list-style-type: none"> <li>Supervise and enforce closure plan. Monitor All excavated spaces would be filled back after laying off the cables</li> </ul>	Contractor	The Executing Agency DD E&S Contractor
Vehicular movement and operation of machineries	Emission from construction, vehicles and machinery, causing public health risks, nuisance and other impacts on the bio-physical environment	Medium  Dust and other emissions	<ul style="list-style-type: none"> <li>All vehicles, equipment and machinery used for construction be regularly maintained to ensure that the pollution emission levels conform to the NEQS in case of longer construction activity (one month or more)</li> <li>Air quality parameters be monitored at determined sites and schedule determined by the executing agency in case the construction/installation time is more than 3 days</li> </ul> <p>Incorporate design features enabling continuation of traffic flow in neighborhood</p>	Contractor  EPA Approved Labs	The Executing Agency, DD E&S Contractor
Social Disturbance	Working in neighborhood, invasion of privacy of locals	Low	<ul style="list-style-type: none"> <li>Contractors should restrict workers movement to the subproject only Adhere to ethical behavior</li> </ul>	Contractor	The Executing Agency, Environment Specialist, Contractor

## REQUIREMENTS FOR SUBPROJECTS WITH ENVIRONMENTAL CATEGORY B

### A. Project Preparation and Pre-Implementation

1. The IEE for the subprojects shall define measures to mitigate or prevent the negative impacts from the subprojects. The ADB safeguards require that the borrower prepares an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. This shall cover the design, the construction, the operational and the decommissioning phases. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Additionally, the contractor will prepare site specific EMPs.
2. Prior to submitting the subproject for financing, the executing agencies will:
  - (i) Prepare the terms of reference for environmental consultants should they be required to conduct environmental assessment, prepare environmental assessment, and initial environmental examination (IEE) report including an environmental management plan (EMP).
  - (ii) Ensure that adequate public consultation has been undertaken with affected groups and local stakeholders, and that the result of these consultations is incorporated into the IEE.
  - (iii) Review the environmental assessment and submit the IEE, and EMP documents to ADB and the NEPA.
3. Prior to commencing Civil and Construction Works, the EA will:
  - (i) Submit the IEE for regulatory approval of the NEPA, and obtain approval, e.g., environmental clearance, Non-Objection Certificate, forest clearance, and water board clearance as per the Government's regulatory requirements, and submit them promptly to the Asian Development Bank.
  - (ii) Ensure that the required mitigation measures during implementation of the EMP are included in the bidding document of the subproject, and that all bidders have access to the IEE and EMP.
  - (iii) Set up a grievance redress mechanism (GRM, see section B).

### B. Grievance Redress Mechanism

4. **GRM establishment.** Prior to the contractor's mobilization at the site, the EA will facilitate the establishment of a grievance redress committee (GRC) with grievance focal points (GFPs) at subproject locations. The GRC and GFPs will attend to the grievances of the local communities and affected parties as necessary. In order to receive and facilitate the resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance, an Environmental Grievance Redress Mechanism will be established for each of the projects. When and where the need arises, the mechanism will be used for addressing any complaints that arise during the implementation of projects.

5. The grievance mechanism should be scaled to the risks and adverse impacts of the project. It should address affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no costs and without retribution. The mechanism should not impede access to the Afghanistan's judicial or administrative remedies. The affected people shall be informed appropriately about the mechanism.

6. The GRC will comprise representatives from local authorities, affected parties, and other well-reputed persons as mutually agreed with the local authorities and affected persons. It will also comprise the environment specialists of the contractor, project implementation consultant (PIC), and PMO. The role of the GRC is to address the Project-related grievances of the affected parties that were not resolved satisfactorily during the initial stages of the GRM.

7. **GFPs.** The EA will assist affected communities in identifying local representatives to act as their GFPs. The GFPs will be responsible for (i) representing the community in formal meetings with the contractor, PIC, and the local community s/he represents; and (ii) communicating community members' grievances and concerns to the contractor. The number of GFPs for each project will depend on the number and distribution of affected communities.

8. **Public consultation meeting.** A pre-mobilization public consultation meeting will be convened by the EA with the GFPs, contractor, PMU, and PIC, and other interested parties (e.g. district-level representatives, NGOs) to:

- (i) Introduce the key personnel of each stakeholder, including their roles and responsibilities.
- (ii) Clarify the GRM's, including routine (proactive) public relations activities proposed by the contractor, PIC, and PMO to ensure the communities are continually advised of project progress and associated constraints throughout project implementation.
- (iii) Identify the GRC members.
- (iv) Present project information of immediate concern to the communities by the contractor (timing and location of project, design issues, access constraints etc.) This will include a brief summary of the EMP's purpose and implementation arrangements.
- (v) Elicit and address the community's immediate concerns based on the information provided above.

9. For any subproject subject to the EARF and where an IEE is required, formal and documented public consultation and information disclosure will be required in accordance with the ADB's and government's consultation and information disclosure requirements. This will be done at an early stage during IEE preparation and shall allow informing stakeholders of the project components and to encourage input to identify possibly overlooked environmental issues. The information disclosed and feedback provided at the consultation sessions will be documented and understood. In this respect a series of consultations shall be made for the subprojects with the local population / those affected and other stakeholders concerned.

10. According to ADB SPS 2009 meaningful consultation is a process that:
- begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;
  - provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people;
  - is undertaken in an atmosphere free of intimidation or coercion;
  - is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and
  - enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.
11. **GRM implementation.** Following the pre-mobilization public consultation meeting, environmental complaints associated with the civil works will be routinely handled through the GRM as follows:
- (i) Individuals will lodge their environmental complaint/grievance with their respective community's nominated GFP.
  - (ii) The GFP will bring the individual's complaint to the contractor's attention.
  - (iii) The contractor will record the complaint in the onsite Environmental Complaints Register (ECR) in the GFP's presence.
  - (iv) The GFP will have the complaint resolved with the contractor. If the Contractor does not resolve the complaint within one week, then the GFP will bring the complaint to the EA's Environment Specialist's attention who will coordinate with the Contractor in resolving the issue.
  - (v) If the complaint is not resolved within two weeks, the GFP will present the complaint to the GRC. The complaint should be resolved within two weeks, and the outcome will be reported back to the community. The Contractor will then record the complaint as resolved, and closed in the ECR.
  - (vi) Should the complaint not be resolved through the GRC, the issue will be adjudicated through local legal processes.
12. In parallel to the ECR, each GFP will maintain a record of the complaints received, and follow up on their rapid resolution. The EA will keep track of the status of all complaints through the contractor's monthly environmental monitoring reports, and ensure that they are resolved on time.