

Environmental Assessment and Review Framework

July 2017

PAK: Multitranches Financing Facility Central Asia
Regional Economic Cooperation Corridor
Development Investment Program

CURRENCY EQUIVALENTS

(as of 20 June 2017)

Currency Unit	–	Pakistani rupee (PKR)
PKR1.00	=	\$0.00954
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ABBREVIATIONS

ADB	–	Asian Development Bank
CSC	–	Construction Supervision Consultant
EA&RF	–	Environmental Assessment and Review Framework
EIA	–	Environmental Impact Assessment
EMP	–	Environmental Management Plan
EPA	–	Environmental Protection Agency
IEE	–	Initial Environmental Examination
MMF	–	Multitranches Financing Facilities
NHA	–	National Highway Authority
NGO	–	Non-Governmental Organization
PIU	–	Project Implementation Unit
PPP	–	Projects, Plans, Policies
RoW	–	Right of Way
SPS	–	Safeguard Policy Statement

WEIGHTS AND MEASURES

km (kilometer)	–	1,000 meters
m (meter)	–	0.001 kilometer

GLOSSARY

Ramsar site	–	Wetland designated for inclusion in the List of Wetlands of International Importance
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NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The proposed multi tranche financing facility (MFF) will enhance regional connectivity and trade via the CAREC Corridors in Pakistan by improving the efficiency for road traffic along the CAREC Corridors. For the purpose, the proposed MFF will rehabilitate and upgrade the road network of 747 km constituting the CAREC Corridors mainly in Sindh, Punjab, and Khyber Pakhtunkhwa. The government has requested an MFF in an amount up to \$800 million from ADB's ordinary capital resources to help finance a part of the investment program. The MFF will consist of several tranches, subject to the government's submission of related periodic financing requests, execution of the related loan and project agreements for each tranche, and fulfillment of terms and conditions and undertakings set forth in the framework financing agreement.

2. To adequately screen, assess, review, and monitor the environmental impacts of candidate subprojects under tranches of the proposed MFF, an Environmental Assessment and Review Framework is presented below. It includes assessment of legal framework and institutional capacity, anticipated environmental impacts, environmental assessment of subprojects and components, consultation, information disclosure, and grievance redress, institutional responsibilities, and monitoring and reporting.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

1. Environmental Legislation of Pakistan

3. The Constitution of Pakistan does not mention environmental protection per se, however, its Concurrent Legislative List had "Environment and Ecology" as a subject on which both the federal and provincial legislatures could make laws. After the 18th Constitutional Amendment in 2010, environment as a subject has been fully devolved to the provinces; hence making the environmental legislation a provincial responsibility. However, Pakistan has a rich history of environmental legislation. Its main legal and regulatory instruments include:

- (a) Pakistan Environmental Protection Act, 1997. Ministry of Environment, Government of Pakistan. Enacted 6 Dec 1997. It is currently applicable to the Islamabad Capital Territory, and the Federally Administered Tribal Areas (FATA).
- (b) Punjab Environmental Protection Act, 1997. Enacted through Punjab Environmental Protection (Amendment) Act, 2012. Notified on 18 Apr 2012.
- (c) Balochistan Environment Protection Act, 2012. Government of Balochistan. Enacted 15 Jan 2013.
- (d) Sindh Environmental Protection Act, 2014. Government of Sindh. Enacted 24 Feb 2014.
- (e) Khyber Pakhtunkhwa Environmental Protection Act, 2014. Government of Khyber Pakhtunkhwa. Enacted 11 Dec 2014.
- (f) Pakistan Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations, 2000. Notified 13 Jun 2000.
- (g) Pakistan Environmental Assessment Procedures, 1997. Pakistan Environmental Protection Agency, Government of Pakistan.
- (h) Guidelines for the Preparation and Review of Environmental Reports, 1997. Pakistan Environmental Protection Agency, Government of Pakistan.
- (i) Guidelines for Public Consultation, 1997. Pakistan Environmental Protection Agency, Government of Pakistan.

- (j) Guidelines for Sensitive and Critical Areas, 1997. Pakistan Environmental Protection Agency, Government of Pakistan.
- (k) National Environmental Quality Standards (NEQS) for industrial and municipal liquid effluents, industrial gaseous emissions, motor vehicle exhaust and noise, ambient air, drinking water quality and noise.

4. The abovementioned federal and provincial environmental laws provide for Environmental Protection Agency (EPA) to be established with the authority and responsibility for safeguarding environment through implementing the relevant Environmental Protection Act; making rules and regulations, and issuing guidelines; establishing National Environmental Quality Standards (NEQS); receiving, registering, reviewing and taking a decision on the environmental assessment reports; monitoring compliance of environmental approvals and Environmental Management Plans; checking the pollution, imposing penalties, and initiating litigation against them; and developing state of the environment report and raising awareness about environmental issues in their respective territorial jurisdictions.

5. In addition to the above legislation, which is specifically related to the environmental assessment process, other environment related policies, guidelines and legislation applicable in Pakistan are listed below.

Legislation/Guideline	Description
National Environmental Policy (2005) (NEP)	NEP is the primary policy of Government of Pakistan addressing environmental issues. The broad Goal of NEP is, "to protect, conserve and restore Pakistan's environment in order to improve the quality of life of the citizens through sustainable development". The NEP identifies a set of sectoral and cross-sectoral guidelines to achieve its goal of sustainable development. It also suggests various policy instruments to overcome the environmental problems throughout the country.
The Forest Act (1927)	The Act empowers the provincial forest departments to declare any forest area as reserved or protected. It empowers the provincial forest departments to prohibit the clearing of forest for cultivation, grazing, hunting, removing forest produce, quarrying and felling, lopping and topping of trees, branches in reserved and protected forests. No protected forest is situated in the sub-project area.
Provincial Wildlife Protection Ordinances	It empowers the government to declare certain areas reserved for the protection of wildlife and control activities within in these areas. It also provides protection to endangered species of wildlife. As no activities are planned in these areas, no provision of this law is applicable to the proposed project.
The Antiquities Act (1975)	It ensures the protection of Pakistan's cultural resources. The Act defines "antiquities" as ancient products of human activity, historical sites, or sites of anthropological or cultural interest, national monuments, etc. The Act is designed to protect these antiquities from destruction, theft, negligence, unlawful excavation, trade, and export. The law prohibits new construction in the proximity of a protected antiquity and empowers the GOP to prohibit excavation in any area that may contain articles of archaeological significance. Under the Act, the subproject proponents are obligated to ensure that no activity is undertaken in the proximity of a protected antiquity, report to the Department of Archaeology, GOP, any archaeological discovery made during the course of the project.

Legislation/Guideline	Description
Pakistan Penal Code (1860)	It authorizes fines, imprisonment or both for voluntary corruption or fouling of public springs or reservoirs so as to make them less fit for ordinary use.
NATIONAL ENVIRONMENTAL AND CONSERVATION STRATEGIES	
Biodiversity Action Plan	The plan recognizes IEE/EIA as an effective tool for identifying and assessing the effects of a proposed operation on biodiversity.
Environment and Conservation	There is a well-established framework for environmental management in Pakistan. The Ministry of Environment deals with environment and biological resources. Within the ministry, the NCS unit established in 1992 is responsible for overseeing the implementation of the strategy. Two organizations, the Pakistan Environmental Protection Council (PEPC) and the Pak EPA are primarily responsible for administering the provisions of the PEPA, 1997. The PEPC oversees the functioning of the Pak EPA. Its members include representatives of the government, industry, non-governmental organizations and the private sector. The Pak EPA is required to ensure compliance with the NEQS, establish monitoring and evaluation systems, and both identify the need to and institution of legislations whenever necessary. It is thus the primary implementing agency in the hierarchy. The Provincial Environmental Protection Agencies are formed by the respective provinces.
INTERNATIONAL CONVENTIONS	
The Convention on Conservation of Migratory Species of Wild Animals (1981.21)	The Convention requires countries to take action to avoid endangering migratory species. The term "migratory species" refers to the species of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries. The parties are also required to promote or cooperate with other countries in matters of research on migratory species. There are no endangered species of plant life or animal life in the vicinity of the proposed sub-project.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)	The convention requires Pakistan to impose strict regulation (including penalization, confiscation of the specimen) regarding trade of all species threatened with extinction or that may become so, in order not to endanger their survival further.
International Union for Conservation of Nature and Natural Resources Red List (2000)	Lists wildlife species experiencing various levels of threats internationally. Some of the species indicated in the IUCN red list are also present in the wetlands of Pakistan.

6. The relevant Sections of the federal and provincial laws require all project proponents to file an Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA), whichever is applicable as per Schedule I or II of the Pakistan EPA Review of IEE and EIA Regulations, 2000 with the relevant environmental protection agency before commencing construction or operation. These Regulations set the procedures for environmental assessment, approval and post-approval monitoring and reporting. Following enactment of the provincial environmental protection laws, the provincial rules and regulations are also being framed. The Sindh and Punjab provinces have notified the provincial rules and regulations while rest of the provinces are in process of approving the same. Hence, the federal rules and regulations will remain applicable in the provinces until replaced by the provincial rules and regulations.

7. Once submitted, the relevant EPA reviews the IEE and accords its approval, or requires submission of an EIA by the proponent if the project has an adverse environmental effect. After reviewing the EIA, the EPA can accord its approval subject to such conditions as it may deem fit

to impose and require that the EIA be re-submitted after such modifications as may be stipulated, or can reject the project as being contrary to environmental objectives.

8. In Sindh, the Review of Initial Environmental Examination and Environmental Impact Assessment Regulations, 2014 have been issued under Section 37 of the Sindh Environmental Protection Act 2014. Projects listed under Schedule II of these Regulations require the proponents to conduct an EIA. Schedule II includes all 'Federal or Provincial highways or major roads (including rehabilitation or rebuilding or reconstruction of existing roads)'. Hence the Sindh components of the project's Tranche 1 i.e. Petaro-Sehwan Section and Ratodero-Shikarpur Section require EIAs to be conducted and approved by the Sindh Environmental Protection Agency (SEPA).

9. In the province of Khyber Pakhtunkhwa, where the third subproject of Tranche 1, Dara Adam Khel-Peshawar section is located, the provincial IEE/EIA regulations have not yet been formulated and the federal Pakistan Environmental Protection Agency (Review of IEE and EIA Regulations, 2000) apply. Under Schedule II of these Regulations, all 'federal or provincial highways or major roads (except maintenance, rebuilding or reconstruction of existing roads) with a total cost of Rs. 50 million or above' require an EIA to be prepared by the proponent and approved by the Khyber Pakhtunkhwa EPA. Since the cost of the subproject exceeds the stipulated amount of Rs 50 million, an EIA is required to be prepared and submitted to the Khyber Pakhtunkhwa EPA for approval.

2. ADB's Safeguard Policy Statement (SPS) and other relevant policies

10. The goal of the ADB's Safeguard Policy Statement (SPS) is to promote the sustainability of project outcomes by protecting the environment and people from projects' potential adverse impacts. Among the objectives of ADB's safeguards are:

- (i) avoidance of adverse impacts of projects on the environment and affected people, where possible;
- (ii) minimizing, mitigating, and/or compensating for adverse project impacts on the environment and affected people when avoidance is not possible.

11. ADB's SPS sets out the policy objectives, scope and triggers, and principles for three key safeguard areas:

- (i) environmental safeguards,
- (ii) involuntary resettlement safeguards, and
- (iii) Indigenous Peoples safeguards.

12. ADB Policy Principles are summarized in a table below:

	Policy Principle	Summary
1	Screening and categorization	Initiate screening process early to determine the appropriate extent and type of environmental assessment.
2	Environmental assessment	Conduct an environmental assessment to identify potential impacts and risks in the context of the project's area of influence.
3	Alternatives	Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts, including no project alternative.

	Policy Principle	Summary
4	Impact mitigation	Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts. Prepare an environmental management plan (EMP).
5	Public consultations	Carry out meaningful consultation with affected people and facilitate their informed participation. Involve stakeholders early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account. Continue consultations with stakeholders throughout project implementation. Establish a grievance redress mechanism.
6	Disclosure of environmental assessment	Disclose a draft environmental assessment in a timely manner, in an accessible place and in a form and language(s) understandable to stakeholders. Disclose the final environmental assessment to stakeholders.
7	Environmental management plan	Implement the EMP and monitor its effectiveness. Document monitoring results, and disclose monitoring reports.
8	Biodiversity	Do not implement project activities in areas of critical habitats.
9	Pollution prevention	Apply pollution prevention and control technologies and practices consistent with international good practices. Adopt cleaner production processes and good energy efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges. Avoid the use of hazardous materials subject to international bans or phaseouts.
10	Occupational health and safety. Community safety.	Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease. Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks to the health and safety of local communities
11	Physical cultural resources	Conserve physical cultural resources and avoid destroying or damaging them. Provide for the use of "chance find" procedures.

13. ADB's Public Communication Policy (2011) aims to enhance stakeholders' trust in and ability to engage with ADB, and thereby increase the development impact of ADB operations. The policy promotes transparency, accountability, and participatory development. It establishes the disclosure requirements for documents ADB produces or requires to be produced.

14. ADB's Accountability Mechanism Policy's (2012) objectives is to provide an independent and effective forum for people adversely affected by ADB-assisted projects to voice their concerns and seek solutions to their problems, and to request compliance review of the alleged noncompliance by ADB with its operational policies and procedures that may have caused, or is likely to cause, them direct and material harm. The Accountability Mechanism a "last resort" mechanism.

15. A comparative analysis, based on a summary equivalence assessment which compared Pakistan's legal and regulatory framework to the ADB Safeguard Policy (2009),¹ found that the law and regulations provide little detail on principles of environmental impact assessment, the environmental impact assessment procedures for preparation of environmental assessment reports, and requirements for implementation of environmental terms and conditions of approvals. This is left to the Guidelines for the Preparation and Review of Environmental Reports, 1997,

¹ The analysis was conducted under TA 7548-REG: Improving the Implementation of Environmental Safeguards in Central and West Asia.

Guidelines for Public Consultation, 1997; and Guidelines for Sensitive and Critical Areas, 1997. In addition, more technical guidance is provided in various sector guidelines.

16. The analysis found that the Pakistan Environmental Safeguards System has full equivalence with the Environment Safeguards of the ADB SPS with respect to (i) objective; (ii) scope and triggers; (iii) examination of alternatives; and (iv) disclosure of draft and final environmental assessment reports (including the environmental management plan). At the same time, partial equivalence was found with respect to (i) screening; (ii) conducting an environmental impact assessment, (iii) avoiding, minimizing, mitigating and/or offsetting adverse impacts, enhancing positive impacts, and preparing an environmental management plan; (iv) carrying out meaningful consultation; (v) implementing the environmental management plan and monitoring its effectiveness; (vi) prohibiting implementation of projects in areas of critical habitats; (vii) applying pollution prevention and control technologies; (viii) provision of occupational health and safety, and establishing preventative and emergency preparedness and response measures; and (ix) conserving physical cultural resources.

17. To meet the requirements for screening and categorization; preparation of environmental impact assessments; environmental planning and management, disclosure; consultation and participation, the Executing Agency and or Implementing Agency (EA/IA) will follow ADB SPS (2009) principles and requirements.

18. To meet the requirements for environmental management of implementation, environmental and social management systems are to be established in the EAs/IAs.

3. World Bank Group Environmental Health and Safety Guidelines (EHS Guidelines)

19. During the design, construction, and operation of the project the NHA will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines². These standards contain performance levels and measures that are normally acceptable and applicable to projects. When Pakistan regulations differ from these levels and measures, NHA will achieve whichever is more stringent.

4. Capacity of NHA in Environmental Assessment and Environmental Management

20. NHA has a previous experience of working with ADB on many transport projects and has knowledge of environmental requirements of ADB. However, further capacity building in environmental assessment and environmental management is strongly recommended through training workshop, on-site training, study tours and so on. The budget for capacity building needs to be included in the EMPs for Tranches.

III. DESCRIPTION OF THE PROGRAM

21. The Programs roads planned under each tranche and their cost estimates are summarized in Table 1.

² http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

Table 1: CAREC Corridors Development Investment Program

Tranche	Project Road	Length (km)	Estimated Cost (\$ million)
T1	Petaro-Sehwan (building additional 2-lane carriageway)	66	86.4
	Ratodero-Shikarpur (building additional 2-lane carriageway)	43	60.0
	Dara Adamkhel-Peshawar (rehabilitating existing 4-lane carriageway)	34	40.3
	Capacity development	–	8.3
	Subtotal	143	195.0
T2	Shikarpur-Rajanpur (building additional 2-lane carriageway)	224	302.0
	Capacity development	–	8.0
	Subtotal	224	310.0
T3	DG Khan-DI Khan (building additional 2-lane carriageway)	207	290.0
	Petaro-Sehwan (rehabilitating existing 2-lane carriageway)	130	97.0
	Ratodero-Shikarpur (rehabilitating existing 2-lane carriageway)	43	30.0
	Capacity Development	–	3.0
	Subtotal	380	420.0
	Total	747	925.0

IV. ANTICIPATED ENVIRONMENTAL IMPACTS

22. It is anticipated that the CAREC Investment Program will have environmental impacts characteristic of road rehabilitation/reconstruction projects. The magnitude of those impacts will vary depending on sensitivity of the environment including ecological environment or availability of archeological or historical sites in project area. The potential adverse environmental impacts during construction can include, by not be limited by:

- *Physical Environment.* Potential impacts to area topography are likely to occur in the construction stage due to the possibilities of cut and fill, borrow pits, and quarries. Earth-moving operations can cause soil erosion. Potential air quality impacts of the subprojects during the construction phase can be anticipated due to fugitive dust generation in and around construction activities and related activities such as plants for crushing rocks, hot-mix and asphalt plants. Large water extraction volumes for construction purposes and camps can affect the availability of water for domestic or agricultural use. Fuel and lubricants used for road construction can contaminate groundwater and surface water if they are not properly stored and disposed. Potential impacts are also related to wastewater from construction camps. Noise and vibration impacts, generated by construction activities can affect noise-sensitive receptors such as hospitals, schools in settlements and wildlife in specially protected areas;
- *Biological Resources.* Potential impacts related to biological resources include a risk of habitat fragmentation and loss, improved accessibility and increase in poaching, physical disturbance of wildlife, removal of roadside trees, road accidents involving wildlife etc. The alignments under subprojects can run in vicinity of existing or proposed protected areas;
- *Socio-Economic Environment.* Potential impacts to the social environment can include both adverse impacts such as loss of roadside community business for

bypassed communities, resettlement, transmission of diseases, and positive impacts on income and unemployment trends. The subprojects can impact existing infrastructure such as oil and gas pipelines, electric and communication lines, and water supply. Potential impacts on archaeological, historical and cultural assets located within RoW can occur due to construction activities.

23. Among potential adverse environmental impacts during operation are:

- Increased noise levels and vehicular emissions can have health impacts on the local population in settlements. Runoffs from roads can contaminate water streams. Solid waste accumulated along the roads can potentially contaminate soil and impact aesthetics. The project can cause community health and safety issues for road-side communities due to potential traffic accidents. It also can cause split and bypassed communities.

V. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS AND/OR COMPONENTS

24. The following general criteria will be adopted for selection of the subprojects for the MFF:

- (i) The subprojects shall only be selected from NHA's CAREC priority roads list.
- (ii) The subprojects shall only involve activities that follow all the government regulations.
- (iii) Subprojects including activities listed in ADB's Prohibited Investment Activities List (ADB SPS's Appendix 5) do not qualify for ADB's financing.
- (iv) Subprojects which have not prepared an EIA or an IEE in accordance with this EARF and Safeguard Requirements 1 of SPS 2009, identified all the key potential environmental and social impacts and risks, and incorporated effective measures to avoid, minimize, mitigate or compensate for the adverse impacts into an EMP and project design do not qualify for ADB's financing.³
- (v) Subprojects that are deemed highly complex and sensitive in accordance with SPS do not qualify for ADB's financing.

25. A final check on conformity with the selection criteria will be the submission of selected subprojects for ADB's clearance. Any subproject, which does not meet the general criteria listed above may be rejected.

26. Preliminary assessment of the MFF assumes both Category B and Category A subprojects. All subprojects will be subject to environmental assessment process (Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA)). Depending on the significance of project impacts and risks, the assessment may comprise a full-scale environmental impact assessment (EIA) for category A projects, an initial environmental examination (IEE) or equivalent process for category B projects, or a desk review for Category C projects.

³ Based on a preliminary assessment it is anticipated that Tranche 1, and consecutive tranches will not be located within or in proximity to environmental sensitive areas.

A. Requirements to Environmental Screening and Classification

27. All subprojects to be included in MFF will be screened to determine their environmental category. Categorization is to be undertaken using Rapid Environmental Assessment (REA) checklists (template of the REA is given in Appendix 1), consisting of screening questions relating to (i) the sensitivity and vulnerability of environmental resources in project area, and (ii) the potential for the project to cause significant adverse environmental impacts. Projects are classified into one of the following environmental categories:

- (a) Category 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. An environmental impact assessment (EIA) is required.
- (b) Category 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 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. An initial environmental examination (IEE) is required.
- (c) Category 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.

28. Categorization is to be based on the most environmental sensitive component, which means that if one subproject is with potential for significant adverse environmental impacts, then the Tranche is to be classified as Category A regardless of potential environmental impacts of other aspects of the project. In general, criteria that can trigger project's 'Category A' are as follows:

- (i) subproject is a new road alignment (typically more than 10 km for bypasses);
- (ii) subproject requires a complex mitigation measure that needs to be prepared through an in-depth assessment of the impacts and detailed study for preparing mitigation measures;
- (iii) subproject will have an impact on an ecologically sensitive area, particularly if the project is in buffer or core zone of any designated specially protected areas, or area of international significance (such as Ramsar site) or cultural heritage and archaeological sites designated by UNESCO and Ministry of Culture.
- (iv) considerable growth of traffic and vehicular emissions on a subproject causing significant impacts on sensitive receptors.

29. Road upgrading and rehabilitation subprojects that do not fall into the above category are classified as B.

B. Requirements to Environmental Assessments and Environmental Management Plans

30. Environmental assessment of the project will be fulfilled in accordance with the Safeguard Requirement 1 (Environment) of ADB's SPS.⁴ At an early stage of each subproject preparation,

⁴ <https://www.adb.org/sites/default/files/institutional-document/32056/safeguard-policy-statement-june2009.pdf>.

the NHA will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people, women, and concerned NGOs. If potentially adverse environmental impacts and risks are identified, the NHA will undertake an environmental assessment as early as possible in the project cycle. For subprojects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, the NHA will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the subproject location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental costs and benefits of the various alternatives considered into account. The "no action" alternative will be also considered.

31. Environmental assessment should include description of environmental and social baseline to provide an understanding of current conditions forming the benchmark against which project impacts are assessed. Both primary and secondary data can be used in environmental assessment. Baseline information should be provided in quantitative terms to the extent possible.

32. Impacts and risks will be analyzed in the context of each subproject's area that encompasses:

- (i) the primary subproject site(s) and related facilities;
- (ii) associated facilities that are not funded as part of the CAREC Investment Program, and whose viability and existence depend exclusively on the subproject and whose goods or services are essential for successful operation of the sub-project;
- (iii) areas and communities potentially affected by cumulative impacts of the CAREC Investment Program, and other sources of similar impacts in the geographical area; and
- (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the sub-project that may occur later or at a different location.

33. Environmental impacts and risks will also be analyzed for all relevant stages of the project cycle, including preconstruction, construction, operations, decommissioning, and post closure activities such as rehabilitation or restoration.

34. The NHA will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. 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. The structure and composition of the typical EMP is provided in Appendix 2.

35. The NHA should ensure that ADB be given access to undertake environmental due diligence for all subprojects. However, NHA has the main responsibility for undertaking environmental due diligence and monitoring the implementation of environmental mitigation measures for all subprojects. The due diligence report as well as monitoring reports on implementation of the environmental management plan needs to be documented systematically and be available to the public, if requested.

VI. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM

A. Public Consultation

36. For each of the subprojects the NHA will organize consultations with project affected people and other stakeholders. The types and level of consultation need to be commensurate with the impacts on affected communities. Consultation will be based on the following principles:

- (i) Early start in the subproject preparation stage and continuation throughout the subproject cycle;
- (ii) Timely disclosure of relevant information in a comprehensible and readily accessible to affected people format;
- (iii) Ensuring the absence of intimidation or coercion during public consultation;
- (iv) Gender inclusive and responsive with focus on disadvantaged and vulnerable groups, and
- (v) Enabling the integration of all relevant views of affected people and stakeholders into decision-making.

37. NHA has organized public consultations for Tranche 1 of the Investment Program for all 3 subprojects. The materials of the consultations have been documented and included in the IEE report for the Tranche 1.

B. Information Disclosure

38. NHA and ADB agree that in disclosing environmental information for each of the subproject to the public:

- (i) NHA is responsible for ensuring that all environmental assessment documentation, including the environmental due diligence and monitoring reports, are properly and systematically kept as part of an NHA project-specific record;
- (ii) all environmental documents are subject to public disclosure, and therefore be made available to public;
- (iii) for ADB's category-A subprojects, the draft EIAs will be disclosed to the public through ADB's websites 120 days prior ADB board consideration. The EIA/IEE should be reviewed by ADB before it is disclosed to the public; and
- (iv) NHA will ensure that meaningful public consultations, particularly with project affected persons, are undertaken during the IEE/EIA preparation process for the future subprojects, and the relevant EIAs/IEEs are locally disclosed (in libraries, local administrations, etc)

C. Grievance Redress Mechanism

39. A mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance will be established for each of subprojects. Complaints escalated from the subproject level will be resolved at the project's level. The grievance mechanism should be scaled to the risks and adverse impacts of the subproject. 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 Pakistan's judicial or administrative remedies. NHA will appropriately inform the affected people about the mechanism.

VII. INSTITUTIONAL ARRANGEMENT AND RESPONSIBILITIES

40. To prepare the follow-up subprojects and to comply with ADB's Safeguard Policy Statement (2009) and the Pakistan environmental legislation, NHA and ADB agreed on the following:

- (i) NHA will take the following responsibilities:
 - (a) Prepare environmental screening checklists and classify potential subprojects;
 - (b) Based on the environmental classification of the subprojects, prepare the terms of reference to conduct an IEE or an EIA study (outline of an environmental assessment report is shown in Appendix 2);
 - (c) Hire an environmental consultant or firm to prepare an IEE or EIA report, including an EMP for disclosure;
 - (d) Undertake an initial review of the IEE or EIA;
 - (e) Submit the IEE or EIA report and the review form to ADB as part of the approval of subproject;
 - (f) Ensure that all regulatory clearances are obtained before starting civil works for the subproject.
 - (g) Submit to ADB all the required clearances/certificates obtained from the relevant Government authorities.
 - (h) Ensure that all the mitigation measures required to be implemented during construction are included in the bidding document;
 - (i) Establish an Environment and Social Unit within PMU to monitor the contractors and the implementation of the environmental management measures required for each sub-project;
 - (j) Require the contractor to prepare site-specific EMPs for operations that includes a sub-plan for each of the work areas.
 - (k) Ensure that no land will be released to the contractor until the SS EMP for that area has been prepared and approved.
 - (l) Require that the contractor employ a suitably qualified or experienced environment specialist on a full-time basis to supervise the implementation of the EMP.
 - (m) Require that the contractor provide awareness training in environmental management for all employees working on the project.
 - (n) Ensure that an environmental management plan, including all proposed mitigation measures and monitoring programs, are properly implemented.
 - (o) Monitor the implementation of environmental management plan and prepare an environmental monitoring report every six months, to be delivered to the ADB.
 - (p) In the case of unpredicted environmental impacts occurring during project implementation, require the contractor to provide and implement a corrective action plan.
 - (q) In case a subproject needs to have its alignment changed or its environmental category upgraded, consult with ADB to decide whether a supplementary IEE or EIA study is required. If it is required, prepare the

terms of reference for undertaking a supplementary IEE or EIA and hire an environment consultant to carry out the study.

- (r) Ensure that meaningful public consultation be undertaken with affected groups, women, and NGOs.
- (ii) ADB will take the following responsibilities:
 - (a) Review the IEE or EIA reports as a basis for the approval of each sub-project.
 - (b) Disclose the final IEE or draft full EIA (at least 120 days prior to ADB Board consideration) and Final EIA, and/or environmental assessment and review framework before project appraisal, a new or updated EIA/IEE and corrective action plan prepared during project implementation, if any, as well as environmental monitoring reports on the ADB website
 - (c) Monitor the implementation of the EMP and due diligence as part of overall project review mission.
 - (d) Assist NHA, if required, in carrying out its responsibilities and safeguard capacity building.
 - (e) Facilitate the required consultations with project affected groups and local NGOs, and to ensure that the borrower or project sponsor provides relevant information on the project's environmental issues in a form and language(s) accessible to those being consulted.

A. Staffing Requirements and Budget

41. NHA will recruit environmental consultant(s) or firm as part of engineering design team to prepare Initial Environmental Examination / Environmental Impact Assessment reports for each subproject associated with this Investment Program.

42. The subprojects' environmental costs need to incorporate a budget and resources to (i) implement the environmental review and screening procedure, (ii) undertake the IEE/EIA studies for the follow-up subprojects, (iii) conduct stakeholder's consultations, (iv) monitor the implementation of EMPs, and (v) undertake environmental mitigation measures as required. The estimated budget is shown in the Appendix 3.

43. The costs of conducting training, undertaking monitoring, procuring laboratory equipment for instrumental monitoring, hiring environmental consultants, and implementing the environmental impact assessment and review framework needs also to be incorporated in the subprojects' budgets.

VIII. MONITORING AND REPORTING

44. The extent of monitoring activities, including their scope and periodicity, will be commensurate with the project's risks and impacts. NHA is required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic monitoring reports (see the template in Appendix 4) on their implementation performance. ADB will require NHA to:

- (i) establish and maintain procedures to monitor the progress of implementation of EMPs;
- (ii) verify the compliance with environmental measures and their progress toward intended outcomes;
- (iii) document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports;
- (iv) follow up on these actions to ensure progress toward the desired outcomes,
- (v) retain qualified and experienced external experts or qualified NGOs to verify monitoring information for projects with significant impacts and risks; and
- (vi) submit periodic monitoring reports on safeguard measures as agreed with ADB.

45. ADB will carry out the following monitoring actions to supervise subprojects implementation:

- (i) conduct periodic site visits for projects with adverse environmental or social impacts;
- (ii) conduct supervision missions with detailed review by ADB's safeguard specialists/officers or consultants for sub-projects with significant adverse social or environmental impacts;
- (iii) review the periodic monitoring reports submitted by NHA to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
- (iv) work with NHA to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to reestablish compliance as appropriate; and
- (v) prepare project completion reports that assesses whether the objective and desired outcomes of the EMPs have been achieved, considering the baseline conditions and the results of monitoring.

IX. APPENDIX 1: REA CHECKLIST

Rapid Environmental Assessment (REA) Checklist

ROADS AND HIGHWAYS

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
A. Project Siting			
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. Potential Environmental Impacts			
Will the Project cause			

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> ▪ encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries? 			
<ul style="list-style-type: none"> ▪ encroachment on precious ecology (e.g. sensitive or protected areas)? 			
<ul style="list-style-type: none"> ▪ alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site? 			
<ul style="list-style-type: none"> ▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction? 			
<ul style="list-style-type: none"> ▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing? 			
<ul style="list-style-type: none"> ▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation? 			
<ul style="list-style-type: none"> ▪ noise and vibration due to blasting and other civil works? 			
<ul style="list-style-type: none"> ▪ dislocation or involuntary resettlement of people? 			
<ul style="list-style-type: none"> ▪ dislocation and compulsory resettlement of people living in right-of-way? 			
<ul style="list-style-type: none"> ▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups? 			
<ul style="list-style-type: none"> ▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? 			
<ul style="list-style-type: none"> ▪ hazardous driving conditions where construction interferes with pre-existing roads? 			

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> ▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations? 			
<ul style="list-style-type: none"> ▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents? 			
<ul style="list-style-type: none"> ▪ accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials? 			
<ul style="list-style-type: none"> ▪ increased noise and air pollution resulting from traffic volume? 			
<ul style="list-style-type: none"> ▪ increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road? 			
<ul style="list-style-type: none"> ▪ social conflicts if workers from other regions or countries are hired? 			
<ul style="list-style-type: none"> ▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)? 			
<ul style="list-style-type: none"> ▪ 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? 			
<ul style="list-style-type: none"> ▪ 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. 			

X. APPENDIX 2. OUTLINE OF AN ENVIRONMENTAL ASSESSMENT REPORT

This outline is part of the Safeguard Requirements 1. An environmental assessment report is required for all environment category A and B projects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. A typical EIA report contains the following major elements, and an IEE may have a narrower scope depending on the nature of the project. The substantive aspects of this outline will guide the preparation of environmental impact assessment reports, although not necessarily in the order shown.

A. Executive Summary

This section describes concisely the critical facts, significant findings, and recommended actions.

B. Policy, Legal, and Administrative Framework

This section discusses the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

C. Description of the Project

This section describes the proposed project; its major components; and its geographic, ecological, social, and temporal context, including any associated facility required by and for the project (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the project's layout and components, the project site, and the project's area of influence.

D. Description of the Environment (Baseline Data)

This section describes relevant physical, biological, and socioeconomic conditions within the study area. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives

This section examines alternatives to the proposed project site, technology, design, and operation - including the no project alternative - in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. It also states the basis for selecting the particular project design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

G. Information Disclosure, Consultation, and Participation

This section:

- (i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;
- (ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and
- (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

H. Grievance Redress Mechanism

This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

I. Environmental Management Plan

This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

- (i) Mitigation:
 - (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
 - (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and

- (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.
- (ii) Monitoring:
 - (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and
 - (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.
- (iii) Implementation arrangements:
 - (a) specifies the implementation schedule showing phasing and coordination with overall project implementation;
 - (b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and
 - (c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.
- (iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment and provides recommendations.

XI. APPENDIX 3. OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES FOR ENVIRONMENTAL ASSESSMENT

A. Objectives

The objective of the consulting services is ensuring the environmental soundness and sustainability of the project and supporting the integration of environmental considerations into the project-making process in accordance with ADB's SPS 2009 (Safeguard Requirement 1: Environment), and considering WB Group EHS Guidelines. This will be achieved by conducting environmental impact assessment (EIA) or initial environmental examination (IEE) of the proposed subproject to identify potential environmental impacts on physical, ecological, socioeconomic, and physical cultural resources, and preparing EIA/IEE report with environmental management plan in accordance with the ADB's Safeguard Policy Statement (2009). The indicative duration of an EIA study is 4-6 months⁵ and an IEE study – 1.5 – 3 months.

B. Scope of Work

The consultant's scope of work will include the following tasks:

- Analysis of the background materials. Background materials of the earlier studies including ecological, geotechnical, hydrogeologic, and other relevant studies for each sub-project will be collected from the relevant organizations and analyzed;
- Assessment of Environmental Impacts and Development of Mitigation Measures. An EIA or IEE study to assess potential direct, indirect, cumulative, induced, as well as transboundary and global impacts of the project to physical, biological, socioeconomic, and physical cultural resources during design, construction and operation stages will be conducted. Adverse environmental impacts will be avoided, or where it is not possible
- Examination of Alternatives. Alternatives to the project's location, design, technology, as well as "no project" alternative will be assessed;
- Public consultations. Meaningful public consultations with affected people (at least two rounds consultations for EIA and one consultation for IEE) ensuring participation of all stakeholders including non-governmental organizations, women will be conducted. The list of people attended the consultation, time and locations, subjects discussed during consultation will be recorded in systematic manner and attached in the EIA/IEE report as an appendix;
- Grievance Redress Mechanism will be established;
- Preparation of IEE/EIA report. An EIA/IEE report including executive summary, policy, legal, and environmental framework, description of the project, baseline data, expected environmental impacts and mitigation measures, analysis of alternatives, information disclosure, consultation and participation, grievance redress mechanism, in accordance with ADB's Safeguard Policy Statement (2009);
- Preparation of EMP. Site-specific environmental management plan will be prepared within the framework of this activity.

⁵ More time should be planned for EIA preparation if seasonal (winter/summer) data needs to be collected.

C. Team Composition and Organization

Composition of an environmental assessment team will depend on the level of environmental assessment required (IEE or EIA), as well as location, type and magnitude of the project. In general, it will be based on the following requirements:

- both international and domestic specialists will be involved in environmental assessment process;
- in case of an IEE, the team will be composed of, in most cases, environmental specialists;
- in case of an EIA, sub-specialists such as biologists, hydrologists, botanists, etc will be brought into the process depending on the subproject sensitive field;
- the Team Leader (International Environmental Specialist) will have 10-15 years of experience in environmental assessment, environmental management and monitoring, construction supervision of projects including road construction, team management skills, experience working in teams of multi-discipline experts and leading a national team of consultants, understanding of administrative, procedural, and technical requirements of environmental assessment;
- Domestic Specialists will be graduates in environmental science, environmental engineering, geological science, engineering hydrology, biology or related discipline with significant experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures.

D. Budget

The estimated costs for preparation of IEE and EIA are provided in Tables below. A team of International and national specialists are recommended for these studies.

Estimate of the Preparation of the IEE report for a subproject

	Months	per month	Amount
Remuneration, accomodation, per diem			
Environmental Specialist, International	2	25000	\$50,000
Environmental Specialist, Domestic	2	4000	\$8,000
		Sub-total	\$58,000
Out of pocket expenses			
Land transport			\$5,000
Report preparation, transmission			\$2,000
Public consultations			\$2,000
Administrative and support cost			\$3,000
		Sub-total	\$12,000
Contingency (10%)			\$7,000
		Total:	77,000

Estimate of the Preparation of the EIA report for a subproject

	Months	per month	Amount
Remuneration, accomodation, per diem			
Environmental Specialist, International	4	25000	\$100,000
Environmental Specialist, Domestic	4	4000	\$16,000
Ecologist, Domestic	3	4000	\$12,000
Other specialists (biologists, geologists, archeologists, etc)	6	3000	18000
Sub-total			\$146,000
Out of pocket expenses			
Field studies and analysis			\$10,000
Land transport			\$7,000
Report preparation, transmission			\$2,000
Public consultations			\$4,000
Administrative and support cost			\$5,000
Sub-total			\$28,000
Contingency (10%)			\$17,400
Total:			191,400

XII. APPENDIX 4. OUTLINE OF ENVIRONMENTAL MONITORING REPORT

{Environmental and/or Social} Monitoring Report

{Annual/Semestral/Quarterly} Report
{Month Year}

{Short Country Name}: {Project Title-Subproject}

Prepared by {complete and accurate name of implementing agency or external monitoring agency} for the {complete name of the borrower} and the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of {Day Month Year})

{The date of the currency equivalents must be within 2 months from the date on the cover.}

Currency unit	–	{currency name in lowercase (Symbol)}
{Symbol}1.00	=	\${_____}
\$1.00	=	{Symbol_____}

ABBREVIATIONS

{AAA}	–	{spell out (capitalize only proper names)}
{BBB}	–	{spell out}
{CCC}	–	{spell out}

{WEIGHTS AND MEASURES}

{symbol 1 (full name 1)}	–	{Definition 1}
{symbol 2 (full name 2)}	–	{Definition 2}
{symbol 3 (full name 3)}	–	{Definition 3}

{GLOSSARY}

{Term 1}	–	{Definition 1}
{Term 2}	–	{Definition 2}
{Term 3}	–	{Definition 3}

NOTE{S}

- (i) The fiscal year (FY) of the Government of {name of borrower} {and its agencies} ends on {day month}. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2011 ends on {day month} 2011. {Note: If FYs are not referred to within the text, delete the entire note and change NOTES to NOTE.}
- (ii) In this report, "\$" refers to US dollars. {Note: If a second \$ currency is referred to in the text, e.g., NZ\$ or S\$, add: unless otherwise stated. In the text, use "\$" for US dollars and the appropriate modifier, e.g., NZ\$ or S\$, for other currencies that use the "\$" symbol.}

This {environmental and/or social} monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

{Read and delete:

- (i) **Guidelines:** Following requirements of the ADB Safeguard Policy Statement (2009) and the *Operations Manual* section on safeguard policy (OM F1), borrowers/clients are required to establish and maintain procedures to monitor the status of implementation of safeguard plans and ensure progress is made toward the desired outcomes. Borrowers/clients are required to submit the following monitoring reports for ADB review:

Project Category	Frequency of Reports
Environment category A	<ul style="list-style-type: none"> • Semi-annual monitoring reports during project construction • Annual monitoring reports during project operation
Environment category B	<ul style="list-style-type: none"> • Periodic monitoring reports as deemed appropriate
Involuntary resettlement category A and B	<ul style="list-style-type: none"> • Semiannual monitoring reports
Indigenous peoples category A and B	<ul style="list-style-type: none"> • Semiannual monitoring reports
Highly complex and sensitive deemed by ADB	<ul style="list-style-type: none"> • Quarterly monitoring reports

The level of detail and comprehensiveness of a monitoring report is commensurate with the complexity and significance of social and environmental impacts. A safeguard monitoring report may include the following elements:

- (a) Background/context of the monitoring report (adequate information on the project, including physical progress of project activities, scope of monitoring report, reporting period, and the monitoring requirements including frequency of submission as agreed upon);
- (b) Changes in project scope and adjusted safeguard measures, if applicable;
- (c) Qualitative and quantitative monitoring data;
- (d) Monitoring parameters/indicators and methods based on the monitoring plan/program previously agreed upon with ADB;
- (e) Monitoring results compared against previously established benchmarks and compliance status (e.g., national environmental emission and ambient standards and/or standards set out in the WB's EHS guidelines; timeliness and adequacy of environmental mitigation measures; IR compensation rates and timeliness of payments, adequacy and timeliness of IR rehabilitation measures including serviced housing sites, house reconstruction, livelihood support measures, and training; budget for implementing EMP, RP, or IPP, timeliness and adequacy of capacity building, etc.);
- (f) Monitoring results compared against the objectives of safeguards or desired outcomes documented (e.g. IR impacts avoided or minimized; livelihood restored or enhanced; IP's identity, human right, livelihood systems and cultural uniqueness fully respected; IP not

suffer adverse impacts, environmental impacts avoided or minimized, etc.);

- (g) If noncompliance or any major gaps identified, include a corrective action plan;
- (h) Records on disclosure of monitoring information to affected communities;
- (i) Identification of key issues, or complaints from affected people, or recommendations for improvement;
- (j) Monitoring adjustment measures recommended based on monitoring experience/trends and stakeholders response;
- (k) Information about actual institutional arrangement for implementing the monitoring program/plan provided or adjusted, as may be required;
- (l) Proposed items of focus for the next report and due date.

(ii) **Page limit:** Not applicable.