

Environmental and Social Management System (ESMS)

TA-9467 PAK: Strengthening the Federal Public–Private Partnership Framework and Enabling Reforms for Infrastructure Financing Support

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Acronyms

ADB Asian Development Bank

APF Approvals and Process Flow

DPs Displaced Persons

E&S Environmental and social

EPA Environment Protection Agency

ESF Environmental and Social Framework

ESMP Environmental and Social Management Plan

ESMS Environmental and Social Management System

Federal P3A Federal PPP Authority

FI Financial intermediary

GOP Government of Pakistan

IAM Independent Accountability Mechanism

ICP Informed Consultation and Participation

IFC International Finance Corporation

IPs Indigenous Peoples

IPDP Indigenous Peoples' Development Plan

IR Involuntary resettlement

Land Acquisition and Resettlement Plan

MDB Multilateral development bank

NOC No Objection Certificate

PDF Project Development Facility

PEPA Pakistan Environment Protection Agency

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PPP	Public	private	partnership
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PSs Performance Standards

REA Rapid Environmental Assessment

SPC Special Purpose Company

SPS Safeguard Policy Statement

VGF Viability Gap Fund

WB World Bank

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Glossary

Biodiversity Biodiversity is the variability among living organisms from all sources including,

inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between

species, and of ecosystems.

Brownfield Brownfield activities relate to projects that modify existing facilities, equipment,

appliances, systems or processes. Where there is gradual replacement or retrofit of a whole facility dedicated to the same activity over a longer period of time, this

may be considered as a series of brownfield projects.

Cultural heritage

encompasses tangible and intangible heritage, which may be recognized and

valued at a local, regional, national or global level.

Economic displacement

Loss of land, assets, access to assets, income sources, or means of livelihood as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land

use or on access to legally designated parks and protected areas.

Eminent domain

The right of the state using its sovereign power to acquire land for public

purposes. National law establishes which public agencies have the prerogative to

exercise eminent domain.

Entitlement Resettlement entitlements with respect to a particular eligibility category are the

sum total of compensation and other forms of assistance provided to displaced

persons in the respective eligibility category.

ESMP Environmental and social management plan (ESMP) is an instrument that details

(a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental and social impacts, or to reduce them

to acceptable levels; and (b) the actions needed to implement these measures.

ESMS ESMS sets out policies and procedures to identify, assess, manage, and monitor

the environmental and social risks and impacts projects on an ongoing basis.

Greenfield Greenfield activities relate to projects in new sites or in existing facilities where the

vast majority of a plant and equipment is new and where, in the case of projects in existing facilities, all the critical items of equipment are decommissioned, or

projects that primarily acquire and deploy new appliances or equipment.

Host communities

Communities receiving physically displaced persons of a project as resettlers.

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Physical cultural resources

Movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

Physical displacement

Relocation, loss of residential land, or loss of shelter as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Relocation assistance

Support provided to persons who are physically displaced by a project. Relocation assistance may include transportation, food, shelter, and social services that are provided to the displaced persons during their relocation. It may also include cash allowances that compensate displaced persons for the inconvenience associated with resettlement and defray the expenses of a transition to a new locale, such as moving expenses and lost work days.

Replacement cost

Replacement cost involves replacing an asset at a cost prevailing at the time of its acquisition. This includes fair market value, transaction costs, interest accrued, transitional and restoration costs, and any other applicable payments, if any. Depreciation of assets and structures should not be taken into account for replacement cost. Where there are no active market conditions, replacement cost is equivalent to delivered cost of all building materials, labor cost for construction, and any transaction or relocation costs.

Security of tenure

Protection of resettled persons from forced evictions at resettlement sites. Security of tenure applies to both titled and non-titled displaced persons.

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1. Background

1.1 Overview

- The Federal Government has recognized the importance of public private partnerships (PPPs)
 as one of the ways to leverage private investments and private expertise for the development
 of essential economic and social infrastructure in the country, to resolve the infrastructure
 service gaps and to improve the quality of public services.
- 2. The Parliament promulgated the Public Private Partnership Authority Act 2017 as an Act to create an enabling environment for private sector participation in development projects and in the provision of public infrastructure and related services in Pakistan through public private partnership projects. Parliament amended the 2017 Act in 2021 through the Public Private Partnership Authority (Amendment) Act 2021.
- 3. The Act creates an enabling framework for the development, approval and implementation of PPPs in the country. As part of the framework, the Act has defined the approval process and the institutions that are responsible for approving a PPP project through different stages of its development process.
- 4. Federal PPP Authority (P3A) refers to the Authority established by the Government in conformance with the P3A Act 2017 for carrying out the purposes and objectives of the said Act. According to the Act, the Authority may take such measures and exercise such powers as may be necessary for promoting and facilitating realization of the concept and methods of public private partnership.
- 5. The Federal P3A is responsible for administering two segregated funds. The PDF is primarily used to support the preparation of project qualification proposals and project proposals by funding transaction advisory services and capacity building of personnel at the implementing agency dedicated to a PPP project. The Viability Gap Fund (VGF) is used to support eligible PPP projects that are socially or economically feasible, but not financially viable. Different Financing Sources may fund the PDF and the VGF. It is possible to access one or both Funds. In other words, receiving funding from PDF is not a pre-requisite to access VGF.

1.2 Purpose and Scope of the ESMS

6. The Federal P3A strives to ensure that the PPP projects financed through the Authority would avoid, minimize and / or manage adverse environment and social impacts and enhance positive impacts. The Federal ESMS Policy is established to address environment and social safeguard requirements in a systematic manner as a core function of the Federal P3A's management system. The Federal P3A's environment and social policy and principles adhere to the requirements of national legal and regulatory, and internationally ratified conventions and agreements. The Federal ESMS Policy is also aligned with international standards and international best practices, such as Asian Development Bank (ADB)'s Safeguard Policy Statement (SPS) 2009.

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- 7. In addition, the Federal P3A shall also comply with the respective environment and social policies of all those Financing Source(s) that fund the PDF and the VGF.
- 8. The ESMS defines safeguard requirements pertaining to various PPP project types, identifies different applicable national legal requirements relevant to these safeguard requirements, outlines internal procedures to be adopted in meeting these safeguard requirements.
- 9. This ESMS is applicable to all qualified PPP projects, as defined in the P3A Act 2017 (as amended) and any other PPP Projects that the Federal P3A intends to be included in the scope of application. The ESMS applies to all stages of a PPP project's life cycle, from project identification to expiry of the PPP Agreement. Therefore, the ESMS extends to the Implementing Agency and the Private Party as defined in the PPP Manual.

1.3 Approach towards Developing ESMS

10. Federal P3A has developed this ESMS in a compatible manner with international environment and social safeguard standards and best practices such as ADB's SPS, WB's Environmental and Social Framework (ESF) and IFC's Performance Standards (PSs). It entails: (i) collation of relevant national legal and regulatory requirements, and internationally ratified conventions and agreements, (ii) consultations with PPP Unit, potential donors, civil society, academia and potential Implementing Agencies for developing a draft ESMS, (iii) deliberations on draft ESMS, and (iv) finalizing the draft ESMS in line with feedback received.

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2. Definition of Environmental and Social Management System (ESMS)

- 11. Environmental and Social Management System (ESMS) defines policies, principles, processes, and institutional arrangements to identify, assess, manage and monitor the environmental and social risks and impacts of projects which are financed by the PDF and the VGF on an ongoing basis. ESMS requires projects to undergo appropriate environmental and social (E&S) due diligence and to be prepared and implemented in accordance with relevant environmental and social national, provincial and local laws and regulations.
- 12. The P3A established this ESMS as a part of its overall management system to meet E&S related national laws and regulations, and international conventions and agreements as well as international best practices.
- 13. The ESMS has the following elements:
 - i. environmental and social policy;
 - clearly defined procedures for the identification, assessment and management of the E&S risks and impacts of projects based on nature of activities, scale of operations, technology, locations, significance and severity of E&S risks and impacts;
 - iii. organizational structure and staffing including skills and competencies in environmental and social areas;
 - iv. training requirements;
 - v. monitoring and review of environmental and social risks of projects and the portfolio;
 - vi. external communications mechanism and grievance redress.
- 14. The ESMS is applicable to the entire portfolio of the Federal P3A, which includes current and/or proposed projects and is part of the overall management system of the Federal P3A. If parties involved in a PPP transaction have their own ESMS, consistency between the documents need to be achieved. In the absence of an ESMS, the involved parties are to adopt this ESMS.
- 15. The ESMS is commensurate with the nature and magnitude of environmental and social risks and impacts of portfolio projects. Therefore, it should be revised when the environmental and social risk profile of the portfolio changes significantly. In addition, the ESMS is to be updated when existing legal requirements are modified or new legislation is introduced. The annual review and revision (if any) will be the responsibility of the Federal P3A, who will inform the parties that have adapted this ESMS of the changes.
- 16. Expected outcomes of the ESMS are i) enhancement of environmental and social performance; ii) fulfilment of compliance obligations; iii) achievement of environmental and social management objectives.

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3. Environmental and Social Policy of P3A

3.1 Policy Statement

- 17. The Federal P3A is fully committed to effectively managing environmental and social risks, impacts, and ensuring gender equality, as well as enhancing positive impacts of its operations. The following policy principles are set in place to achieve this objective in planning, design, construction and implementation of PPP projects:
 - Complying with applicable national laws and regulations;
 - Complying with applicable international environmental & social laws, internationally ratified conventions and agreements;
 - Avoid or mitigate adverse impacts to people and the environment;
 - Conserve or rehabilitate biodiversity and natural habitats, and promote the efficient and equitable use of natural resources and ecosystem services;
 - Promote worker and community health and safety;
 - Ensure that there is no prejudice or discrimination toward project-affected individuals
 or communities and give particular consideration to minority groups, and those
 disadvantaged or vulnerable, especially where adverse impacts may arise or
 development benefits are to be shared; and
 - Address project-level impacts on climate change and consider the impacts of climate change on the selection, siting, planning, design and implementation and decommissioning of projects; and
 - Maximize stakeholder engagement through enhanced consultation, participation and accountability.
- 18. P3A recognizes need of social inclusion and gender equality and equity. The PDF and the VGF will not finance PPP projects that are included in the Prohibited Investment Activities List (PIAL) (Appendix I).
- 19. The procedures put in place to achieve these objectives, as described throughout the ESMS, will be integrated into terms of conditions of PPP agreements and reflected in the legal agreement.

3.2 Policy Principles for Environmental and Social Management

- 20. The ESMS adopts mitigation hierarchy approach to:
 - Anticipate and avoid environmental and social risks and impacts of projects;
 - Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels;

- Once risks and impacts have been minimized or reduced, mitigate; and
- Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.
- 21. The policy principles and actions required to avoid or mitigate E&S impacts are based on best practices and elaborated in table below.

S.No	Principles in Environment and Social Management	Description
		 Screening PPP projects for identification of environmental and social risks and impacts, and consequent categorization of PPP projects based on nature of activities, scale of operations, technology, locations, significance and severity of E&S risks and impacts;
		 Adopting measures to avoid or mitigate the identified risks and impacts in accordance with the mitigation hierarchy;
1	Environmental and Social Management System (ESMS)	 Following the procedures on governance, institutional arrangements including organizational structure and staffing with appropriate skills and competencies in environmental and social management, and institutional accountability by defining roles and responsibilities;
		Contributes towards gender inclusive and responsive stakeholder consultations undertaken by relevant the Implementing Agency/Private Party, and disclosure of environment and social safeguard documents prepared by the Implementing Agency/Private Party, and their internal and external audit reports through appropriate means of communication.
		 Recognizes the need for gender inclusive monitoring and reporting procedures.
		Objectives of policies and procedures pertaining involuntary resettlement are (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to the pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups.
2	Land Acquisition and Involuntary Resettlement	Recognizes that unless properly managed, people and communities displaced by PPP projects can suffer severe economic, social, and environmental distress, including the loss of their housing, productive lands, income sources and livelihoods as well as social tensions and diminished cultural identity. The vulnerable group and poor are more likely to be disproportionally affected, resulting in long-term hardship and impoverishment.
		 If involuntary resettlement is unavoidable, thorough due diligence will be conducted and compensation, assistance,

S.No	Principles in Environment and Social Management	Description
		benefit sharing, assessment of social impacts, resettlement planning, information disclosure, consultation, grievance redress mechanism, and monitoring and reporting will be set in place commensurate to risks.
		 Recognizes that aforementioned principle is to be applied irrespective of the ownership status; either titled or non-titled owner from land acquisition or restrictions on land use through the process of social and environmental assessment and no forced evictions will be carried out.
		 Recognizes the need for payment of compensation and provision of other resettlement entitlements before physical or economic displacement, in line with applicable governmental procedures / laws / rules.
3	Indigenous Peoples	 Recognizes the need for identification of all impacts (positive & negative) on Indigenous Peoples (IPs); social assessment, Informed Consultation and Participation (ICP) to Indigenous Peoples' Development Plan (IPDP);
		 Recognizes the need to anticipate and avoid, or when avoidance is not possible, minimize and/or compensate adverse impacts from a PPP project on communities of Indigenous Peoples as per applicable government policy and procedures; and
		 Applies to PPP projects that impact individuals or communities that meet the definition of IP as defined in this document.
		 Recognizes the need to protect human rights of men, women and children, and comply with national and international human rights standards, treaties, and due diligence practices in this regard.
4	Social Inclusion, Gender Equality and Equity	 Recognizes the need to protect women against discrimination that could limit equal opportunity by taking steps towards monitoring men and women participation in, decision-making and in accessing benefits.
		 Recognizes the protection of men, women and children against violence.
5	Labor and Working Conditions	 Recognizes the importance of compliance with national labor laws and internationally recognized International Labor Organization's (ILO) Core Labor Standards as follows:
		 Recognizes the need to promote the fair treatment, non- discrimination, and equal opportunity of workers for both men and women;
		 Recognizes the need for improvement worker-management relationship;
		 Recognizes the need to address issues of child labour, forced labour, migrant workers, workers engaged by third

S.No	Principles in Environment and Social Management	Description		
		parties, and workers in the concessionaire's supply chain; and		
		 Recognizes the need to promote safe and healthy working conditions and practices. 		
		Federal P3A recognizes that stakeholder engagement is an inclusive process conducted throughout the project life cycle and that it should be initiated at an early stage of the project development process.		
6 Information Discl		Hold meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation and to determine the level of stakeholder interest and support for the project; to enable stakeholders' views to be taken into account in project design and environmental and social performance.		
	Communication and Information Disclosure, and Grievance Redress	the importance of gender inclusive and gender responsive stakeholder consultations undertaken by the Implementing Agency/Private Party, and disclosure of environment and social safeguard documents prepared by the Implementing Agency/Private Party, and their internal and external audit reports through appropriate means of communication		
		Ensure that appropriate project information and relevant documents, including internal and external audit reports, on environmental and social risks and impacts is disclosed to stakeholders in timely, understandable, accessible and appropriate manner and format.		
		 Provide project-affected parties with accessible and inclusive means to raise issues and grievances, and respond to and manage such grievances. 		
	Cultural Property and Heritage	 Recognizes the importance of cultural property and heritage for current and future generations, consistent with UNESCO's Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972); and 		
7		Seeks to conserve physical cultural resources in the context of the project's area of influence and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of "chance find" procedures that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.		
		When a project may affect physical cultural resources, the Federal P3A will ensure affected communities who use, or have used them within living memory, for long-standing cultural purposes to identify physical cultural resources of importance are consulted and will incorporate the views of the affected communities into decision making process.		

S.No	Principles in Environment and Social Management	Description
8	Biodiversity Conservation and Natural Resource Management	 Recognizes the importance of protection, conservation and sustainable management of biodiversity and living natural resources; Recognizes the importance of maintaining the benefits from ecosystem services.
9	Pollution Prevention and Abatement and Climate Change	 Recognizes the importance of addressing pollution by prevention and management of impacts arising from PPP project activities; Recognizes the importance of cooperating with the Implementing Agency/Private Party in striving to conform with global good practice and standards by: Recognizing the importance of promoting more sustainable use of resources; and Recognizes that climate change issues associated with PPP project activities are assessed, mitigated and monitored.
10	Community Health, Safety and Security	 Recognizes the importance of avoiding or minimizing the risks and impacts to affected community's health, safety and security that may arise from PPP project activities. Understands that there may be ecosystem services that may result in adverse health and safety risks and impacts to affected communities due to the PPP project's direct impacts. Recognizes that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the affected communities; and Recognizes the need to cooperate with the Implementing Agency/Private Party about special requirements related to the safety of dams associated with PPP projects.

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4. Legal and Policy Framework

4.1 Overview

22. The Federal P3A is committed to addressing the risks and impacts of the projects in its portfolio. The Federal P3A will conduct E&S due diligence commensurate with risks and impacts of a project. The E&S risks and impacts of PPP projects, regardless of their magnitude, should be effectively managed during the PPP project's life cycle. Although the potential range of risks and impacts are wide, the below sections elaborate pertinent national laws and regulation, as well as internationally ratified conventions and agreements.

4.2 Applicability of Financing Sources' E&S Policy

23. The Federal P3A may receive project-specific funding from various Financing Sources, such as multilateral development banks (MDBs). Different Financing Sources have different E&S policies, safeguards and requirements. For example, the ADB follows SPS, 2009, while the WB implements its Environmental and Social Framework (ESF), 2017. As such, Federal P3A is to determine the appropriate policies for each project based on the Financing Source to supplement this ESMS. If multiple Financing Sources are supporting the same project, the most stringent of the policies will be implemented by the Federal P3A, subject to agreement of each Financing Source. PPP projects that do not require Financing Sources' funding, the P3A would only be required to comply with the national policies and regulations.

4.3 Environmental Safeguards

- 24. All project-related environmental risks and impacts need to be assessed and safeguarded against. These impacts include direct, indirect, cumulative, and induced impacts in the project's area of influence as well as transboundary impacts.
- 25. Each PPP project needs to be assesses based on its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. For clarification, environmental impacts include those related to the natural environment (air, water, and land), human health and safety, and transboundary and global environmental aspects. Environmental safeguards, policies and requirements, seek to avoid, minimize, or mitigate adverse environmental impacts.

4.3.1 National Environmental Legislation

26. This section provides an overview of the policy framework and legislation at a federal level that may be applicable for the effective mitigation of environmental impacts that result from project implementation. Any PPP project being considered for implementation needs to comply with all the applicable environmental policies, laws, guidelines, acts and legislations of Government of Pakistan (GOP).

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- 27. The key relevant policies, guidelines, strategies, acts and laws pertaining to environmental protection and management are provided as Appendix III.
- i. Pakistan Environment Protection Act, 1997
- 28. The Pakistan Environment Protection Act, 1997 is comprehensive legislation and provides the legislative framework for protection, conservation, rehabilitation and improvement of the environment. The Act is applicable to a broad range of issues and extends to air, water, soil, marine and noise pollution, as well as the import and handling of hazardous waste. The discharge or emission of any effluent, waste, air pollutant or noise in an amount, concentration or level in excess of the National Environmental Quality Standards has been prohibited under the Act, and penalties have been prescribed for those contravening the provisions of the Act.
- 29. The section 12 of the national legislation requires that environmental examination will be carried out for all new projects. The legislation contains two schedules; where schedule-I contains the list of projects which require filing of Initial Environmental Examination (IEE) (see Appendix III) and schedule-II lists the typology of the projects with expected adverse environmental impacts, thus desiring a complete Environmental Impact assessment (EIA) (see Appendix IV).
- 30. The Federal Regulation (Review of IEE/EIA 2000) were prepared as an overarching document to be adapted by each province by their respective Environment Protection Agencies (EPAs), delegated under 18th amendment to the Constitution of Pakistan. Each province has their own environment protection act, derived from the national regulation (PEPA 1997) and the rules and guidelines for environmental assessments notified by Pak-EPA are currently being used for compliance.

ii. Pakistan Environmental Protection Rules

- 31. The Pakistan Environment Protection Act established the federal and provincial agencies giving them the authority and power to make the environment protection rules. The agencies have already made a number of rules such as:
 - Pakistan Environmental Protection Tribunal Rules
 - Self-Monitoring and Reporting by Industries Rules, 2001-Amended
 - Handling, Manufacture, Storage, Import of hazardous waste and hazardous substances Rules, 2016
 - Pakistan Biosafety Rules 2005
 - Environmental Samples Rules, 2001

iii. Pakistan Environmental Protection Tribunal Rules

32. The federal government established four environmental tribunals, one in each provincial capital, under the authority established by Section 20 of PEPA 1997. The environmental tribunals have comprehensive powers to take decisions. The tribunal includes a chairman, with a credential of qualified high court judge, one technical person with suitable professional qualifications and

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experience in the environment field, and one person with qualifications and experience in the discipline of law. For every sitting of the tribunal, the presence of the chairperson and not less than one member shall be necessary.

iv. Review of IEE / EIA Regulations, 2000

- 33. The Pakistan Environmental Protection Agency (Review of IEE and EIA) Regulations, 2000 (the Regulations) prepared by the Pakistan Environmental Protection Agency under the powers conferred upon it by the Act, provide the necessary details on preparation, submission and review of the IEE and the EIA. Categorization of Projects for IEE and EIA is one of the main components of the Regulations. Projects have been classified on the basis of expected degree of adverse environmental impacts. Project types listed in Schedule-I are designated as potentially less damaging to the environment and those listed in Schedule-II as having potentially serious adverse effects. Schedule-I Projects require an IEE to be conducted, provided they are not located in environmentally sensitive areas. For the schedule-II Projects, conducting an EIA is necessary.
- 34. These regulations define the applicability and procedures for preparation, submission and review of IEEs and EIAs. These Regulations also give legal status to the Pakistan Environmental Assessment Procedures prepared by the Federal EPA in 1997. Under the schedule II of 2000 Regulations, a list of possible projects has been provided that will require an EIA and pertain to Energy, Manufacturing and Processing, Mining and Mineral Processing, Transport, Water Management, Dams, Irrigation and Flood Protection, Water Supply and Treatment, Waste Disposal, Urban Development and Tourism and the projects in Environmentally Sensitive Areas. However, for any project EIA may be desired as per clause J of Schedule I and II which refers to sub regulation (2) of Regulation 5 which empowers the Federal EPA to direct the proponent of a project, whether or not listed in Schedule I or II to file an IEE or EIA, for reasons to be recorded in such direction; provided that no such direction shall be issued without the recommendation in writing of the Environmental Assessment Advisory Committee constituted under regulation 23.
- 35. The regulations comprehensively cover the process to be followed both for IEEs and EIAs, starting from the preparation, submission and review assigning the responsibilities to the project proponent and the EPA. EPAs then complete the initial scrutiny (in 10 days) and for EIAs they conduct a public hearing as well as soliciting the comments of relevant departments.
- 36. The complete review process is concluded within 60 days culminating at the issuance of No Objection Certificate (NOC) for construction of the project, conditional to compliance of submission of Environmental Management Plans (EMP).
- 37. Another approval is then sought from EPA before start of operations, which necessitates a written confirmation of compliance with the approval conditions and requirements as set in the IEE/EIA. The agency is expected to accord approval within 15 days. Annual monitoring reports are then submitted for the review of the EPA throughout the course of operation.

- v. Guidelines for the Preparation and Review of Environmental Reports, 1997. Pakistan Environmental Protection Agency, GOP
- 38. The regulations (Review of IEE/EIA 2000) are packaged with sectoral guidelines which are used for specific projects falling under their category. The application format is also given with the regulations as Schedule IV to be filed along with IEE/EIA.
- 39. An example of sectoral guidelines is that Pakistan Environmental Protection Agency has developed guidelines for Solid Waste Management. These guidelines describe present status of solid waste management in Pakistan and strategy for its improvement, solid waste management guidelines, solid waste management action plan, guidelines on solid waste disposal and landfill establishments, incineration guidelines and guidelines for treatment and disposal of hazardous waste.
- vi. National Environmental Quality Standards, 1997
- 40. The National Environmental Quality Standards (NEQS), specify the
 - i. Maximum allowable concentration of pollutants in municipal and liquid industrial effluents discharged into inland waters, sewage treatment facilities, and the sea
 - ii. Maximum allowable concentration of pollutants (16 parameters) in gaseous emissions from industrial sources.
 - iii. Maximum allowable concentration of pollutants (two parameters) in gaseous emissions from vehicle exhaust and noise emission from vehicles.
- 41. In addition, NEQS has also been issued for drinking water, ambient air, motor vehicle exhaust and noise, municipal and liquid industrial effluents, noise and treatment of liquid and disposal of biomedical waste.
- 42. NEQS could be found in Appendix I.
- vii. Guidelines for the Preparation and Review of Environmental Reports, 1997. Pakistan Environmental Protection Agency, GOP
- 43. The GOP has also framed guidelines for the preparation of EIA of projects in various developmental sectors. These guidelines are a package of regulations and guidelines which include:
 - Pakistan Environment Protection Act, 1997
 - Policy and procedure for filing and review and approval of environmental assessments
 - Guidelines for preparation and review of environmental reports
 - Guidelines for public participation
 - Guidelines for sensitive and critical areas
 - National Environmental Quality Standards (NEQS)

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Detailed sectoral guidelines

44. An example of sectoral guidelines is that Pakistan Environmental Protection Agency has developed guidelines for Solid Waste Management. These guidelines describe present status of solid waste management in Pakistan and strategy for its improvement, solid waste management guidelines, solid waste management action plan, guidelines on solid waste disposal and landfill establishments, incineration guidelines and guidelines for treatment and disposal of hazardous waste.

viii. Guidelines for Public Consultation, 1997. Pakistan Environmental Protection Agency, GOP

45. The guidelines on public consultation deals with possible approaches to public consultation and techniques for designing an effective program of consultation that reaches out to all major stakeholders and ensures the incorporation of their concerns in any impact assessment study. The guidelines on sensitive areas are more specific where these identify the officially notified protected areas in Pakistan, including critical ecosystems and archaeological sites.

ix. Guidelines for Sensitive and Critical Areas, 1997. Pakistan Environmental Protection Agency, GOP

46. The Federal Agency has the authority to designate any area as 'environmentally sensitive'. The agency will do so through an official notification issued in the Gazette. For any project falling in the sensitive and critical areas, the proponent of the project will be required to file and EIA. These areas can the ones which are designated as specially protected areas, or areas of international significance, such as Ramsar site, cultural heritage or archaeological site.

x. Pakistan Environmental Assessment Procedures, 1997

47. The guidelines on policy and procedures define the context of policy and the administrative procedures that will govern the environmental assessment process, from the project prefeasibility stage, to the approval of the environmental report. According to the procedures laid out in the policy guidelines, IEE's or EIA's are to be filed with the EPA of the province where the project is to be implemented. The federal EPA has, however, been given the right to review any environmental report at any time and the power to revoke the decision of the provincial EPA, if it deems necessary.

4.3.2 Other Environment Related Legislation

48. Other relevant national policies and legislation are detailed in Appendix I, while relevant multinational environmental agreements are listed in Appendix II.

4.4 Social Safeguards

49. Social safeguards relate to physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of PPP project-related land acquisition through: i) expropriation based

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- on eminent domain, ii) negotiated settlement, if expropriation would result upon failure of negotiation, iii) and/or clearance of assets established on the state land and Public Right of Ways required for the project; does not apply to physical displacement or resettlement resulting from voluntary land transactions.
- 50. The Federal P3A endeavours to avoid, minimize (where avoidance is not possible) and mitigate adverse social and economic risks and impacts that PPP projects may entail. Furthermore, if avoidance is not possible, it endeavours to mitigate all adverse social and economic impacts. The Constitution of Pakistan safeguards the interests of people related to their property rights, while the Land Acquisition Act, 1894 (LAA) provides for acquisition of land and disbursement of compensation to the titleholders.
- 51. The Federal P3A, through the application of this ESMS, endeavours to comply with both constitutional provisions (relevant to social safeguards) and LAA procedures (in cases where land needs to be expropriated) and the E&S principles and mitigation actions adopted by P3A in its Environment and Social Policy Statement.

4.4.1 Involuntary Resettlement

- i. National and Provincial Legislation on Involuntary Resettlement
 - a. Constitution of the Islamic Republic of Pakistan
- 52. The Constitution of Pakistan (1973) clearly addresses the protection of property rights (Article 24) such that "no person shall be deprived of his property save in accordance with law" (Article 24(1)), and "No property shall be compulsorily acquired or taken possession of save for a public purpose, and save by the authority of law which provides for compensation therefor and either fixes the amount of compensation or specifies the principles on and the manner in which compensation is to be determined and given" (Article 24(2)).
- 53. Further, Article 4(2a) reiterates the right of the people by stating that: "No action detrimental to the life, liberty, body, reputation or property of any person shall be taken except in accordance with law".

b. The Land Acquisition Act, 1894

- 54. The Land Acquisition Act of 1894 (LAA 1894), as amended from time to time, is the primary legislation governing the acquisition of land and compensation. The LAA 1894 is a Federal law but its implementation is with Provincial Boards of Revenue (BOR). The Act is meant for the acquisition of land only and it does not explicitly consider the social, cultural, economic, and environmental conditions of those needing to be resettled and/or rehabilitated.
- 55. The LAA 1894 requires that following notification of land acquisition, impacts assessment and valuation, land, structures, crops and other improvements are compensated in cash at market rate to titled landowners and registered land tenants/users. In addition, a 15% compulsory acquisition surcharge is provided.

- 56. Only legal owners and tenants registered with the land revenue department or with formal lease agreements are eligible for compensation / livelihood support. The LAA 1894 also does not openly mandate the provision of specific rehabilitation / assistance to poor and vulnerable groups, nor does it require rehabilitation of income / livelihood losses or resettlement costs. Section 17 of the LAA allows acquisition of land prior to compensation of DPs. There is also no requirement to monitor and assess resettlement outcomes and impacts, or disclosure of monitoring reports.
- 57. The land acquisition process officially starts with the publication of preliminary notification under Section 4 of the LAA. This is followed with the conducting of surveys, measurements, valuation, inquiry on objections, formal declaration of intent to acquire land, dispute resolution, payment of compensation and taking possession of the acquired land as reflected in table below.

Land Acquisition Procedure as per LAA 1894			
LAA Section	Details		
Preliminary Investig	ation		
Section 4: Publication of preliminary notification and powers of officers thereupon (land loosely specified)	 When a piece of land in any locality is needed or is likely to be needed for any public purpose or for a Company, a notification to that effect shall be published in the official Gazette by the Collector of the District, and he shall cause public notice of the substance of such notification to be given at convenient places in the said locality. Thereupon it shall be lawful for any officer, either generally or specially authorised by the Collector of the District in this behalf, and for his servants and workmen:— to enter upon and survey and take levels of any land in such locality; to dig or bore into the subsoil; to do all other acts necessary to ascertain whether the land is adapted for such purpose; to set out the boundaries of the land proposed to be taken and the intended line of the work (if any) proposed to be made thereon; to mark such levels, boundaries and lines by placing marks and cutting trenches; and, where otherwise the survey cannot be completed and the levels taken and the boundaries and lines marked, to cut down and clear away any part of any standing crop, fence or jungle: Provided that no person shall enter into any building or upon any enclosed court or garden attached to a dwelling-house (unless with the consent of the occupier thereof) without previously giving such occupier at least seven days' notice in writing of his intention to do so. The officer so authorised shall at the time of such entry pay or tender payment for all necessary damage to be done as aforesaid, and, in case of dispute as to the sufficiency of the amount so paid or tendered, he shall at once refer the dispute to the decision of the Collector or other chief revenue officer of the District, and such decision shall be final]. 		

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Section 5:

Notification that particular land is needed for a public purpose or for a Company (exact land

- A notification to that effect shall be published in the official Gazette, stating the district or other territorial division in which the land is situate, the purpose for which it is needed, its approximate area and situation, and where a plan has been made of the land, the place where such plan may be inspected, and the Collector shall cause public notice to be given of the substance of the notification at convenient places on or near the land to be acquired.
- 2. Procedural detail for issuance of notification: Where land is to be acquired for a public purpose, the Commissioner, and where land is to be acquired for a Company, the Provincial Government, is satisfied, after considering the result of the survey, if any, made under sub-section (2) of section 4, or if no survey is necessary, at any time, that any particular land included in a locality notified under sub-section (1) of section 4 is needed for a public purpose or a Company, as the case may be.

Objections

specification)

Section 5-A:

Hearing of objections

- 3. Any person interested in any land which has been notified under section 5 as being needed for a public purpose or for a Company may, within 30 days after the issue of the notification, object to the acquisition of the land or of any land in the locality, as the case may be.
- 4. Every objection under sub-section (1) shall be made to the Collector in writing, and the Collector shall give the objector an opportunity of being heard either in person or by pleader and shall, after hearing all such objections and after making such further inquiry, if any, as he thinks necessary, submit the case for the decision of the [Commissioner] together with the record of the proceedings held by him and a report containing his recommendations on the objections. The decision of the [Commissioner] on the objections shall be final.
- 5. Where land is needed for a Company, the Collector shall, after making such enquiries as he deems necessary, also make his recommendations to the [Commissioner] with regard to the area that in his opinion is reasonable for the purpose.
- 6. For the purpose of this section, a person shall be deemed to be interested in land who would be entitled to claim an interest in compensation if the land were acquired under this Act.]

Declaration of intended acquisition

Section 6:

Declaration that land is required for a public purpose

- 1. Subject, to the provisions of Part VII of this Act, [when the [Commissioner]] is satisfied, after considering the report, if any, made under section 5-A, sub-section (2)], that any particular land is needed for a public purpose, or for a Company, a declaration shall be made to that effect under the signature of [Commissioner] or of some officer duly authorised to certify [such] order:
- Provided that no such declaration shall be made unless the compensation to be awarded for such property is to be paid by a Company, or wholly or partly out of public revenues or some fund controlled or managed by a local authority.
- 2. The declaration shall be published in the official Gazette and shall state the district or other territorial division in which the land is situate, the purpose for which it is needed, its approximate area, and, where

Section 7:	 a plan shall have been made of the land, the place where such plan may be inspected. 3. The said declaration shall be conclusive evidence that the land is needed for a public purpose or for a Company, as the case may be and, after making such declaration, the [Commissioner] may acquire the land in manner hereinafter appearing. 4. When the area in respect of which the said declaration is made is less than the area previously notified under sub-section (1) of section 4, such previous notification, so far as it relates to the excess area, shall be deemed to have been superseded by the said declaration]. Whenever any land shall have been so declared to be needed for a public
After declaration Collector to take order for acquisition	purpose or for a Company, the Commissioner, or some officer authorised by the Commissioner in this behalf, shall direct the Collector to take order for the acquisition of the land.
Section 8: Land to be marked out, measured and planned	The Collector shall thereupon cause the land (unless it has been already marked out under section 4) to be marked out. He shall also cause it to be measured, and if no plan has been made thereof, a plan to be made of the same.
Section 9: Notice to persons interested	 The Collector shall then cause public notice to be given at convenient places on or near the land to be taken, stating that the Government intends to take possession of the land, and that claims to compensation for all interests in such land may be made to him. Such notice shall state the particulars of the land so needed, and shall require all persons interested in the land to appear personally or by agent before the Collector at a time and place therein mentioned (such time not being earlier than fifteen days after the date of publication of the notice), and to state the nature of their respective interests in the land and the amount and particulars of their claims to compensation for such interests and their objections (if any) to the measurements made under section 8. The Collector may in any case require such statement to be made in writing and signed by the party or his agent. The Collector shall also serve notice to the same effect on the occupier (if any) of such land and on all such persons known or believed to be interested therein, or to be entitled to act for persons so interested, as reside or have agents authorised to receive service on their behalf, within the revenue district in which the land is situate. In case any person so interested resides elsewhere, and has no such agent, the notice shall be sent to him by post in a letter addressed to him at his last known residence, address or place of business and registered under Part III of the Indian Post Office Act, 1866. The Collector shall also serve notice of the enquiry to be held under section 11 (such notice not being less than fifteen days prior to the date fixed under sub-section (2) for determination of claims and objections) on the Department of Government, local authority or

	Company, as the case may be, for which land is being acquired, and require it to depute a duly authorised representative to attend the enquiry on its behalf for the purpose of making objections (if any) to the measurement of the land, claims to any interest in the land or the amount of any compensation. Such authorised representative shall be a party to the proceedings].	
Section 10: Power to require and enforce the making of statements as to names and interests	 The Collector may also require any such person to make or deliver to him, at a time and place mentioned (such time not being earlier than fifteen days after the date of the requisition), a statement containing, so far as may be practicable, the name of every other person possessing any interest in the land or any part thereof as coproprietor, sub-proprietor, mortgagee, tenant or otherwise, and of the nature of such interest, and of the rents and profits (if any) received or receivable on account thereof for three years next preceding the date of the statement. Every person required to make or deliver a statement under this section or section 9 shall be deemed to be legally bound to do so within the meaning of sections 175 and 176 of the Pakistan Penal Code. 	
Enquiry into measu	rements, value and claims and award by the Collector	
Section 11: Enquiry and award by Collector	On the day so fixed, or on any other day to which the enquiry has been adjourned, the Collector shall proceed to enquire into the objections (if any) which any person interested [33][and a Department of Government, a local authority, or a Company, as the case may be], has stated pursuant to a notice given under section 9 to the measurements made under section 8, and into the value of the land [34][at the date of the publication of the notification under section 4, sub-section (1)], and into the respective interests of the persons claiming the compensation and shall make an award under his hand of— i. the true area of the land; ii. compensation which in his opinion should be allowed for the land; and iii. the apportionment of the said compensation among all the persons known or believed to be interested in the land, of whom, or of whose claims, he has information, whether or not they have respectively appeared before him.	
Possession		
Section 16	When the Collector has made an award under Section 11, he will then take possession and the land shall thereupon vest absolutely in the Government, free from all encumbrances.	
Land Acquisition un	der Emergency Clause	
Section 17	Emergency clause allows acquisition of land prior to compensation of DPs. This clause will not be applied in any project of P3A as it denies consultations with landowners and their right to appeal to the land prices and matters related to the acquisition of land.	

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Section 18	In case of dissatisfaction with the award, DPs may request the LAC to refer the case onward to the court for a decision. This does not affect the Government taking possession of land.		
Assessment of Com	pensation		
Section 23	The award of compensation to the title holders for acquired land is determined at i) its market value of land, ii) loss of standing crops, trees and structures, iii) any damage sustained at the time of possession, iv) injurious affect to other property (moveable or immoveable) or his earnings, v) expanses incidental to compelled relocation of the residence or business and vi) diminution of the profits between the time of publication of Section 6 and the time of taking possession plus 15% premium in view of the compulsory nature of the acquisition for public purposes.		
Section 28	This section relates to the determination of compensation values and interest premium for land acquisition (6% per annum from the date of possession).		
Section 31	Section 31 provides that the Collector can, instead of awarding cash compensation in respect of any land, make any arrangement with a person having an interest in such land, including the grant of other lands in exchange.		
Timeframe for Completion of Acquisition and Award of Compensation			
Section 48 (A)	This clause of the revised Land Acquisition Act (1986) entitles the owner of land to receive compensation for the damage suffered by him in consequence of the delay in award of compensation (unless he has been to a material extent responsible for the delay), if the compensation has not been made within a period of one year from the date of publication of declaration under section 6 in respect of any land, and the Collector has not made an award under section 11 in respect to such land.		

ii. Eligibility and Entitlements of Displaced Persons (DPs)

- 58. In order to ensure that P3A fulfils both requirements of national legislation and international standards for compensating and assisting persons displaced by PPP projects funded through the PDF and VGF, a consolidated set of eligibility and entitlements for compensation and rehabilitation assistance for different categories of DPs to be adopted as referred in *Involuntary Resettlement Safeguards that is contained in the ADB's Safeguard Policy Statement (SPS) 2009, specifically in Para-10 of Appendix, "Safeguards Requirement 2: Involuntary Resettlement"* and other prevailing best practices. The types of losses typically encountered vary according to the nature and complexity of a project. Additional support may be provided to assist DPs in restoring their livelihood and living standards.
- 59. Moreover, for the process of compensation and disbursement of payments to the affectees, especially in terms of resettlement and rehabilitation, P3A will make endeavours towards the

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Implementing Agency and Private Parties acting in accordance with the best practices, acceptable to the Financing Source. Such best practice may be adopted by incorporating/referring to the approved involuntary resettlement documents, as publicly available on the Financing Source's website¹.

Eligibility and Entitlements for the Persons affected by PPP Projects					
Type of Loss	Specification	Eligible Person	Compensation Entitlement		
1. Agricultural land, including, uncultivable wasteland	All land losses	Legal and legalizable owner(s) of Land	 Cash compensation at replacement cost plus 15% Compulsory Acquisition Surcharge (CAS), free of taxes, registration and transfer costs; or 		
			 Land for land compensation through provision of plots of equal value and productivity as that of lost. 		
		Sharecropper/ tenant (registered or not)	Cash compensation equal to the market value of gross annual yield of lost land, proportionate to their share for two years.		
		Lessee (registered or not)	Cash equivalent of the market value of the gross yield of lost land for the remaining lease years, up to maximum of three years		
		Non-titled user (squatter, encroacher)	 No compensation for lost land Rehabilitation allowance equal to the market value of the gross annual yield of lost land in addition to standard crop compensation. (see Loss Type 7 below) 		
	Additional provision for DPs losing more than 10% their total operational agricultural	Owner / lessee/, sharecrop tenant/squatter/ encroacher	 Severe agricultural land impact allowance equal to the market value of the gross annual yield of lost land for one year. 		

¹ An example of a Land Acquisition and Resettlement Plan prepared for a project where ADB was the Financing Source can be found at https://www.adb.org/sites/default/files/project-documents/48404/48404-003-rp-en_2.pdf.

Eligibility and Entitlements for the Persons affected by PPP Projects					
Type of Loss	Specification	Eligible Person	Compensation Entitlement		
	holding				
2. Temporary impact on arable land	Land required temporarily during civil works	All eligible persons, as above, (with and without title)	Crop compensation for lost season (s) and reclamation of land to original use.		
3. Residential/ commercial land		Owner (legal/legalizable)	Cash compensation at replacement cost plus 15% compulsory acquisition surcharge (CAS) free of taxes, registration and transfer costs;		
		Renter/ Leaseholder	Cash compensation of a value proportionate to the duration of the remaining lease period.		
		Non-titled user (squatter, encroacher)	No compensation for lost land		
		Non-titled owners (squatters) occupying land for dwelling identified by the census (only those actually occupying the dwellings)	Self relocation allowance (equivalent to one year's income calculated at the prevailing official monthly minimum wage)		
		Non-titled owners (squatters) occupying land for shops/stalls/ kiosks identified by the census and inventory of lost assets (only those actually occupying the facilities)	Option to set up a stall through a space rental agreement with respective local governments or authority at a designated commercial area in public land and at a location comparable to the last location.		
4. Residential, commercial, agricultural and community structures		Owner(s), titled and non-titled of the structure and squatters (in case of squatters only those	 Cash compensation at replacement cost for affected structures by type of construction and other fixed assets. In case of partial loss cash assistance compensation will 		

Eligibility and Entitlements for the Persons affected by PPP Projects					
Type of Loss	Specification	Eligible Person	Compensation Entitlement		
		actually occupying the structures and in case of community structures the members of the community jointly)	be provided to restore the remaining structure. If more than 25% of the building's floor area is affected, cash compensation will be computed for the entire building/structure. Salvaged materials will be free of deductions. A lump sum transportation Allowance will be paid to relocating households, businesses, agricultural operations and mosques etc. for shifting their belongings, inventory, equipment and installations		
		Renter/ Leaseholder	Cash compensation equivalent to three months rent or a value proportionate to the duration of the remaining lease.		
5. Loss of livelihood during relocation	Residential structures affected	Head of the displaced household	Transition Allowance equivalent to 3 months of average monthly household income in the area.		
6. Loss of business and employment	Shops, stalls and kiosks.	Business owners; (including, renters and informal settlers and squatters) and employees identified by the census.	 Cash grant for net income loss for duration of business stoppage (6 months for permanent loss and no more than 3 months for temporary stoppage.) A one- time cash grant will be paid to affected employees equivalent to 2 month's official monthly minimum wage. 		
7. Crops	Affected crops	Cultivator of crops irrespective of status of tenure	Crop compensation in cash at the full market rate for one year's gross crop yield.		
8.Trees	All affected trees	Owners of fruit and wood trees	 Compensation for mature fruit- bearing trees will comprise of the market rate of the yearly yield multiplied 		

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Eligibility and Entitlements for the Persons affected by PPP Projects				
Type of Loss	Specification	Eligible Person	Compensation Entitlement	
			by the number of years required to grow such a tree to the same productive level it was cut; and for immature trees that are yet to bear fruit compensation will be based on the gross expense needed to reproduce the tree to the same age it was cut. Timber trees will be valued based on the market value of their dry wood volume. The wood of the fallen tree will remain with the owner and its value will not be deducted from the compensation.	
9. Affected Vulnerable households	Poor and female-headed households and other vulnerable households, including the elderly, identified through the Social Impact Assessment.	Head of the household	 Lump sum assistance allowance in cash equivalent to 3 months of average monthly household income in the area. Temporary or permanent employment during construction or operation of the facility that necessitated involuntary resettlement, where feasible. 	
10. Unidentified Losses	Unanticipated impacts	All DPs	Dealt with as appropriate during PPP project implementation according to the applicable Safeguard Policy.	

Note: The current national legislation on acquisition of land (i) largely does not recognize non-titled and non-registered DPs as eligible for compensation for structures and improvements made on land and to receive rehabilitation assistance; and (ii) provides no attention to displaced poor and vulnerable groups, which are required in policies of certain Financing Sources. The compensation entitlements in this table fulfil the involuntary resettlement safeguards requirements of both the national legislation and Financing Sources.

4.4.2 Indigenous Peoples

60. Pakistan has signed and ratified several international human rights treaties and declarations, including the International Covenant on Economic, Social and Cultural Rights (CESCR),

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International Convention on Civil and Political Rights (ICCPR), Convention on the Rights of the Child and the International Convention on the Elimination of All Forms of Racial Discrimination. Pakistan voted in favor of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) on September 13, 2007, however, the GOP does not acknowledge any Indigenous Peoples within Pakistan. The Constitution of Pakistan refers to "minority" several times but does not reference Indigenous Peoples. For example, Article 36 of the Pakistan Constitution requires the State to safeguard the legitimate rights and interests of minorities including their representation in the Federal and Provincial Services. UNESCO cites small groups of Indigenous Peoples in Pakistan, such as the Kihals and Mors and Indigenous Peoples from the Indus, the Buzdar from the Sulemain Mountains and the Kalasha.

- 61. Within Asia and the Pacific, individual indigenous communities reflect tremendous diversity in their cultures, histories, and current circumstances. The contexts in which such peoples live are varied and changing and no universally accepted definition of Indigenous Peoples exists. Indigenous Peoples may be referred to in different countries by such terms as indigenous ethnic minorities, indigenous cultural communities, aboriginals, hill tribes, minority nationalities, scheduled tribes, or tribal groups. These are groups with social or cultural identities distinct from that of the dominant or mainstream society.
- 62. The Pakistani Constitution states that adequate provisions shall be made so that minorities can freely practice their religions and develop their cultures. Article 33 of the constitution states that all citizens shall be accorded fundamental rights, including economic and political justice, and freedom of faith and worship. Further, communities that possess "a distinct 'language, script or culture' shall have the right to preserve the same".
- 63. In the light of the above, for the purposes of this ESMS, the Indigenous Peoples safeguards may be considered for a broader definition as:
- (i) descent from population groups present in a given area before modern states or territories were created,
- (ii) maintenance of cultural and social identities and cultural, social, economic and political traditions and institutions, distinct from the mainstream or dominant society;
- (iii) self-identification and identification by others as being part of a distinct indigenous cultural group, and the display of the desire to preserve their cultural identity;
- (iv) a linguistic identity different from that of the mainstream or dominant society;
- (v) an economic system oriented more toward a traditional system of production than toward the mainstream production system, and/or
- (vi) an unique tie with and attachment to traditional habitat and ancestral territory and its natural resources
- 64. And the IP safeguards protocol will be triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of Indigenous Peoples or affects the territories or natural or cultural resources that Indigenous Peoples own, use, occupy, or claim as their ancestral domain.
- 65. In addition, the Federal P3A, Implementing Agency and the Private Party will be guided by the Financing Sources' policies wherein PPP projects will be screened for potential impacts for

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Indigenous Peoples and will require that such PPP projects are designed and implemented in a manner that fosters full respect for indigenous peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the indigenous peoples themselves so that they (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse impacts as a result of projects, and (iii) can participate actively in sub-projects that affect them.

4.4.3 Addressing Gender Issues in Environment and Social Safeguards Management

- 66. Processes of compulsory land acquisition, physical displacement or any form of involuntary resettlement and their aftermath affect men and women differently. It is therefore imperative to have gender as a frame of analysis mainstreamed in ESMS. E&S due diligence process will be carried out with due regard to gender considerations. Gender analysis related to E&S risks and impacts will be conducted that will include collection of gender disaggregated data to identify and address gender issues safeguards management, Gender equity and equality will be ensured for both genders in the provision of entitlements, and other measures under the E&S safeguard instruments.
- 67. The P3A, IA and the Private Party will ensure meaningful participation of women in all consultations. Negative impacts of PPP projects on female-headed households will be taken up on a case-by-case basis and assistance to these households will be prioritized under the PPP projects. The specific measures will be formulated to ensure that socio-economic conditions, needs, and priorities of women are identified and the process of land acquisition and resettlement does not disadvantage women. During disbursement of compensation and resettlement and rehabilitation assistance, priority will be given to female-headed households. Joint ownership in the name of husband and wife will be encouraged, particularly in cases where land and other assets were acquired after marriages.
- 68. Potentially harmful impacts on people, including changes in livelihood, environmental degradation, and heightened violence directly or indirectly related to PPP projects will be identified and prevented. In case of substantial impacts on women, based on gender analysis, IA and/or the Private Party will develop a Gender Action Plan to address women and men issues separately. IA and/or the Private Party will pay adequate attention to gender concerns, including specific measures addressing the need of female headed households, gender-inclusive consultation, information disclosure, and grievance mechanisms, to ensure that both men and women receive adequate and appropriate compensation for their lost property and resettlement assistance, if required, as well as assistance to restore and improve their incomes and living standards. The resettlement plans will specify the gender inclusive income and livelihoods restoration plans.

<< May be revised based on P3A's own diversity targets once it is complete.>>

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4.4.4 Incorporating Social Dimensions and Social Protection in ESMS

69. The Federal P3A will endeavour to follow international standards for incorporating social protection elements in its ESMS to ensure that vulnerable groups (men, women and children) that maybe negatively affected by any of the PPP projects are adequately compensated and mitigation measures put in place to avoid creating further poverty, and endeavour to comply with internationally recognized core labor standards in the designing and implementation of subprojects, and monitor compliance. As an example of international best practice, ADB Social Protection Strategy (2001) is provided as Appendix IX.

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5. Organizational Responsibilities, Resources and Capacity

70. This chapter presents the institutional arrangements and role of the different organizations in development of PPP projects of the Federal P3A.

5.1 Roles and Responsibilities of Different Organizations within the PPP Framework

- 71. The Parliament promulgated the Public Private Partnership Authority Act 2017 as an Act to create an enabling environment for private sector participation in development projects and in the provision of public infrastructure and related services in Pakistan through public private partnership projects. Parliament amended the 2017 Act in 2021 through the Public Private Partnership Authority (Amendment) Act 2021.
- 72. The key institutions involved in development and approval of a PPP project are detailed in the PPP Manual. Among those, the ESMS is particularly relevant to:
 - a. PPP Authority
 - b. Implementing Agency
 - c. Transaction Advisory
 - d. PPP Working Party
 - e. Private Party
- 73. The roles and responsibilities of each of the aforementioned institution is described in the PPP Manual in detail. Below sections provide an overview to establish their responsibilities in relation to the ESMS.

5.1.1 Provincial Environmental Legislation

74. In addition to national policy, projects are required to adhere by relevant provincial laws and regulations. If there are laws and regulations pertaining same subject at both national and provincial level, the project is to follow whichever is most stringent. Projects that extend beyond provincial boundaries are to consider regulations of each relevant province (in addition to national legislation) and adopt whichever is most stringent.

5.1.2 Federal PPP Authority

75. P3A refers to the Authority established by the Government in conformance with the P3A Act 2017 for carrying out the purposes and objectives of the said Act. According to the Act, the Authority may take such measures and exercise such powers as may be necessary for promoting and facilitating realization of the concept and methods of public private partnership.

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5.1.3 Implementing Agency

76. According to the P3A Act 2017, "Implementing Agency" means any of the line ministries, attached departments, executive departments, sub-ordinate offices, body corporate, autonomous body of the Federal Government or any organization or corporation owned or controlled by the Federal Government. Implementing Agency (IA) is the government contracting authority and public sponsors that enters into the PPP agreement with the Private Party.

5.1.4 Transaction Advisory

77. The transaction advisor is appointed by the IA for supporting the preparation and procurement of the PPP project. The transaction advisor is tasked with among other thigs carrying out of a comprehensive feasibility study of the PPP project, covering all aspects of the project including social and environmental aspects, as well as preparing of bid documents.

5.1.5 PPP Working Party

78. P3WP is an independent approval body outside of the P3A. It consists of high-level government officials, and the motivation for its existence was so the federal government can ensure alignment of any proposed PPP projects with the governments national strategic priorities.

5.1.6 Private Party

79. According to the P3A Act 2017, "Private Party" means a person who is eligible to bid for a project with an implementing agency in accordance with the rules and regulations prescribed under this Act. In general, Private Party refers to a corporate entity which has dominantly private sector ownership (majority shareholding). For the purpose of this ESMS, Private Party refers to the private sector entity that enters into (or forms a Special Purpose Company (SPC) to enter into) the PPP Agreement with the IA for the purpose of implementing the PPP project, governed by the terms and conditions of the PPP Agreement.

5.2 Resources Available for PPP Projects

5.2.1 Project Development Facility (PDF)

- 80. Clause 12 of the P3A Act 2017 establishes the PDF to be managed, controlled and administered by the P3A. According to the Clause 12, the PDF shall be a pool of funds, including contributions from international donor agencies, which shall be utilized, inter alia, to support the preparation of any proposals for qualified projects. The PPP Manual details eligible projects and activities to access PDF.
- 81. Upon approval of the Project Concept Proposal (PCP) by P3WP, the IA may prepare and apply for PDF, if in its opinion it requires financial support for development of the project for PPP implementation. To expedite the process, an IA may choose to submit the PDF application

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along with the PCP (if PCP is being submitted for the project). In this case, the PDF application will be considered only if the PCP is approved.

5.2.2 Viability Gap Fund (VGF)

<<To be elaborated based on feedback received on the PPP Manual >>

5.2.3 Role of Financing Sources

- 82. Financing Sources may allocate funding for PDF and/or VGF. The funding from Financing Sources may replenish either of the Funds and allow P3A to allocate them to projects in its portfolio, or the Financing Source may provide project-specific funding via PDF and/or VGF.
- 83. Depending on the purpose of the funds received from the Financing Source, P3A's E&S reporting responsibilities to the Financing Source will vary. In case of Fund replenishment (non-project-specific funding), the P3A will report E&S risk categorization of all projects within the portfolio of PDF / VGF. Financing Source may request additional documents from any one of the projects in the portfolio, especially those that are high risk, in which case, P3A will disclose all necessary information to the Financing Source.
- 84. If Financing Source provides project-specific funding via PDF and/or VGF, the organization may perform its own E&S due diligence of the project. In such case, the IA and P3A would share all necessary E&S documents completed as part of this ESMS and respond to queries of the Financing Source.

5.3 Roles and Responsibilities of Different Organizations with regards to the ESMS

5.3.1 Federal PPP Authority (P3A)

- 85. E&S responsibilities of P3A are as follows:
 - a. Ensure that the proposed projects are not on the PIAL;
 - Assess the capacity of the IA in undertaking E&S due diligence, and risk and impact assessment, including having designated E&S staff with appropriate qualifications and a grievance mechanism;
 - Ensure that E&S risks and impacts are identified appropriately and E&S mitigation measures are commensurate to risks;
 - Advise, facilitate and actively support the IA to develop and structure, as needed, the
 qualified projects at all stages of the project cycle such as identification, planning,
 tendering, bidding and contract award and implementation;
 - e. Standardize contractual provisions and develop E&S specific provisions; and
 - f. Interact, collaborate and liaise with international agencies.

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5.3.2 The Implementing Agency

- 86. Each IA is required to have an ESMS. The IA may choose to adopt this ESMS and make adjustments as necessary, or develop its own ESMS in line with policies and procedures outlined in this document.
- 87. The IA has varying roles depending on the phase of the project. From PCP Phase to Project Proposal Approval, the IA is the active implementer of the ESMS. Once project is awarded, the Private Party is required to comply with the relevant sections of the ESMS, while IA assumes a monitoring and auditing role of the Private Party's E&S compliance in line with the ESMS.
- 88. Appoint a Transaction Advisor suitable to conduct E&S due diligence commensurate to the risks of the project and to support the IA with responsibilities described in below clause.
- 89. Pre-project award responsibilities of the IA include:
 - a. Ensure that the proposed projects are not on the PIAL;
 - b. Identification of the E&S risks and impacts, and risk categorization of the project to be elaborated in the PCP:
 - c. Responding to P3A's E&S related queries and request for additional information related to PCP;
 - d. If submitting an application for PDF funding, and if the PDF funding is provided on a
 project-specific basis by Financing Source, than ensuring the Financing Source's
 E&S policies are incorporated into the ESMS;
 - e. Procurement and selection of Transaction Advisors (TA) for undertaking project development, transaction structuring and bid process management, and ensuring the selected TA has the required E&S capabilities;
 - f. Assessment of environmental and social impacts, risk allocation required for the preparation of the Project Qualification Proposal (PQP);
 - g. Responding to P3A's E&S queries and request for additional information related to PQP;
 - h. If submitting an application for Viability Gap Fund (VGF) funding, and if the funding is provided on a project-specific basis by Financing Source, than ensuring the Financing Source's E&S policies are incorporated into the ESMS;
 - Analysis required for finalisation for project feasibility, development of bid documents and drafting of PPP Agreement, which includes all necessary E&S clauses;
 - Preparation and submission of Project Proposal (PP) to P3A and ECNEC (if applicable)
 - k. Management of the bid process and selection of the Private Party

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- Submission of application for approval of variations (if any) in the PPP Agreement, post selection of the Private Party
- m. Execution of the PPP Agreement with the SPC formed by the Private Party for this purpose
- 90. If the IA is applying for both PDF and VGF, it should be noted that the Financing Source of PDF and VGF may be different. In which case, IA is required to ensure requirements of each Financing Source is applied at the relevant stage of the project.
- 91. Post-project award responsibilities of the IA include:
 - a. Management of the PPP Agreement during its tenure;
 - b. Monitoring and management of the E&S performance of the SPC; and
 - Taking handover of the Project assets and facilities at the expiry of the PPP
 Agreement, and becoming the implementor of the ESMS

5.3.3 Transaction Advisory

92. The Transaction Advisor is appointed by the IA for supporting the preparation and procurement of the PPP project. The Transaction Advisor supports the IA with any and all E&S related tasks and responsibilities described in the contract between the IA and the Transaction Advisor.

5.3.4 Private Party

- 93. Among the key responsibilities of the Private Party is to comply with legal and regulatory requirements, environmental and social safeguards and other conditions that are applicable to the project. Given that the Private Party is responsible for the construction, operations and maintenance of the project in line with the terms and conditions of the PPP Agreement until the handover of the project assets and facilities to the IA at the expiry of the PPP Agreement, the Private Party is required to comply with E&S requirements outlined in this ESMS. The key responsibilities of the Private Party may include the following:
 - a. Identification of the E&S risks and impacts, and risk categorization of the project to be elaborated in the PCP (in case of an unsolicited offer)
 - b. Responding to P3A's E&S related queries and request for additional information related to PCP;
 - c. Preparation and submission of PQP to P3A (in case of an unsolicited offer)
 - d. Assessment of environmental and social impacts, risk allocation required for the preparation of the Project Qualification Proposal (PQP);
 - e. Responding to P3A's E&S queries and request for additional information related to PQP;

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- f. Submission of the technical and commercial offer to the IA, either on unsolicited basis or in response to a bid process undertaken by the IA, ensuring the offer includes the required E&S capabilities and budget;
- g. Incorporation of the SPC for entering into the PPP Agreement with the IA;
- h. Procuring all required approvals and permits that are required for the construction, operations and maintenance of the project;
- i. Complying with legal and regulatory requirements, environmental and social safeguards and other conditions that are applicable to the project; and
- j. Handover of the project assets and facilities, along with E&S related responsibilities, to the IA at the expiry of the PPP Agreement.

5.3.5 PPP Working Party (P3WP)

- 94. Section 13A of the P3A Act 2017 provides for the establishment of the PPP Working Party (P3WP). The P3WP has the following responsibilities as part of the PPP development and approval process:
 - a. Appraisal of PCP and consideration of recommendations of P3A regarding the same
 - b. Approval / rejection of PCP, in line with the P3A Act and this PPP Manual
 - c. Appraisal of PQP and consideration of recommendations of P3A regarding the same
 - d. Approval / rejection of PQP, in line with the P3A Act and this PPP Manual; and
 - e. Approval / rejection of VGF applications.

5.4 Staffing

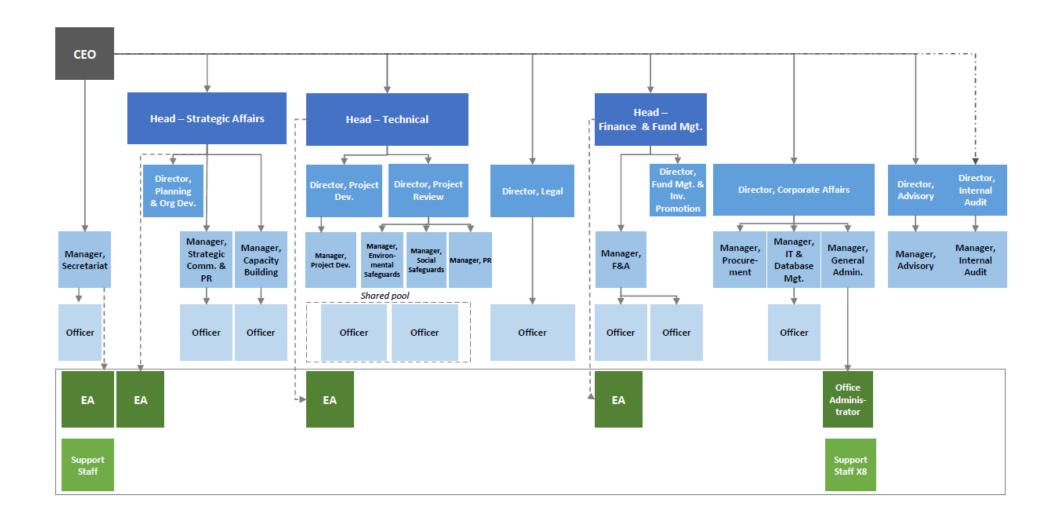
- 95. P3A has established three sub-committees that reports to the Chief Executive Officer (CEO) of the P3A:
 - i. Strategic Affairs,
 - ii. Technical, and
 - iii. Finance and Fund Management.
- 96. Within the Technical Committee are Project Development and Project Review divisions. E&S related responsibilities are completed by Project Review division, more specifically by the Environmental Safeguards Manager and Social Safeguards Manager. They ensure that IA and the Private Party are compliant with the E&S policies and procedures outlined in this ESMS, as well as those of Financing Sources.
- 97. Organizational structure of the P3A is depicted in the diagram below.

<<To be further elaborated based on deliberations of P3A.>>

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5.5 Training and Capacity Building

- 98. The P3A shall take necessary measures to:
 - i. Develop the capacity within the P3A, the IA and Private Party, to effectively manage the adverse E&S impacts of PPP projects;
 - ii. Endeavour to ensure effective PPP project implementation and results monitoring; and
 - iii. Support awareness and capacity building workshops, training and consultations with PPP project stakeholders from the public and private sectors.
- 99. Capacity building will be carried out in the area of review and monitoring of environmental and social safeguards, particularly for Category A and Category B projects. Certain Financing Sources might choose to provide support in capacity development by providing experts to conduct trainings and arrange exposure visits etc. for the focal safeguards staff at the P3A, IA and Private Party. The proposed loan will be accompanied by a technical assistance to address skill and resource gaps in the relevant government agencies.



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6. Operational Procedures for Environmental and Social Compliance

- 100. The operational procedures for E&S compliance are applicable to the entire project life cycle, therefore each stage of the life cycle entails performing different tasks to ensure E&S risks and impacts are managed effectively. The key stages of a PPP project's life cycle are:
 - Project Concept Proposal Stage
 - Project Qualification Proposal Stage
 - Project Proposal Stage
 - Project Implementation and Operations Stage
- 101. Environmental Safeguards Manager and Social Safeguards Managers (together referred to as E&S Managers) of the Federal P3A are to liaise with E&S staff of the IA, Transaction Advisor and the Private Party to ensure E&S compliance of each project.
- 102. If E&S staff of the IA and the Private Party require support in applying the below procedures, E&S Managers of the Federal P3A are to provide assistance and, if necessary, training on how to apply them.
- 103. The following sections detail the operational procedures for E&S compliance at each stage of the project life cycle.

6.1 Stage 1: Project Concept Proposal Stage

- 104. The objective of the PCP stage is the selection of a project for further development as a PPP. The preliminary analysis done in the PCP does not result in a definite assessment on the suitability of the project to be undertaken as a PPP. However, it will determine whether the project shows sufficient promise to justify the expenses of a feasibility study.
- 105. The PCP can be prepared by the IA, or a Private Party in accordance with the P3A Approvals and Process Flow (APF) Regulations (as explained in the PPP manual). The PCP shall include a brief description and explanation of any significant environmental and social risks and impacts anticipated as a result of or in connection with the project in accordance with the procedures described below. It is the responsibility of the IA to submit the PCP (including those received from a Private Party) to the Federal P3A. The Federal P3A is to provide feedback to the IA if any shortcomings have been identified. Only after P3WP approval can the project proceed to the Project Qualification Proposal (PQP) stage.
- 106. The procedural flow for screening and consequent categorization of PPP projects is shown below.

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6.1.1 Procedures for Screening and Risk Identification

- 107. All PPP projects are required to be screened, reviewed and categorized for potential environmental and social risks and impacts at the PCP stage. Screening will place particular attention on adverse risks and impacts of involuntary resettlement, on Indigenous Peoples, the environment, community health and safety, labor and working conditions, biodiversity or cultural heritage.
- 108. Other areas of risk may also be relevant to the delivery of E&S mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or security.
- 109. The Federal P3A is committed to following international standards for the management of its environment and social system including gender aspects, by following international best practices. Therefore, the Federal P3A has adopted the PIAL of the ADB, which is largely consistent with the IFC Exclusion List (2007) and can be found in Appendix II. The PIAL can be expanded by the Federal P3A, if necessary. Prior to making any specific investment, the E&S Managers within the Federal P3A will verify that the proposed PPP project is not on P3A's PIAL.
- 110. Once it has been ascertained by the E&S Managers that the proposed PPP project does not fall under any of the activities listed in the PIAL, the party preparing the PCP (IA or the Private Party) will undertake a detailed screening exercise for the proposed PPP project. ADB's Rapid Environmental Assessment (REA) Checklist is a valuable resource to aid the screening process. There are generic REA Checklists for the different sectors, which are provided in Appendix III.
- 111. An outline of an Environment and Social Due Diligence Report is provided in Annexure XVIII. This report is prepared to support the environment and/or social safeguard checklists. In addition, this report is to be prepared for any existing facilities that might be present to assess their compliance status for E&S safeguards in relation to both the national regulations and Financing Source specific policies.
- 112. Federal P3A is to confirm whether the REA Checklist is acceptable by Financing Sources other than the ADB, if applicable. If IA is to receive project-specific funding from a Financing Source, who has its own procedure, the Federal P3A, IA and the Private Party are to follow the procedures of the Financing Source. Federal P3A will inform the IA on the deliberation of the Financing Source. Each project that does not require Financing Sources' funding is to complete REA Checklist. The IA will submit the completed checklist as part of the PCP to the Federal P3A for review.

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113. In addition to REA, separate forms are needed to explicitly elaborate risks and impacts associated with involuntary resettlement and Indigenous Peoples which can be found in Appendix IV and V respectively.

6.1.2 E&S Risk Categorization

- 114. Risk categorization system is an essential component of the ESMS, which determines the scope and nature of E&S due diligence and risk management of projects. It also enables actions aiming to avoid and/or mitigate E&S risks to be commensurate with the nature and magnitude of those risks. The risk categorization takes sector, type, location, scale, sensitivity, local context, as well as financial instrument into account. It accounts for direct, indirect, cumulative, and induced potential impacts in the project's area of influence. The overall system allows to analyse the aggregate risk of the Federal P3A portfolio.
- 115. The categorization system of the Federal P3A includes three categories as described below:
 - Category A: High or Substantial Risk. PPP projects that constitute potential significant adverse E&S risks and/or impacts that are diverse, irreversible, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works.

All projects listed under Schedule II of the Pakistan EPA Review of IEE & EIA Regulations, 2014 and those sited within a declared environmentally sensitive area are included in this category. In this case, the PPP project shall be subject to both national environmental regulations along with any specific environmental and social safeguard policies from the Financing Source. The Financing Source prior review and approval will be required.

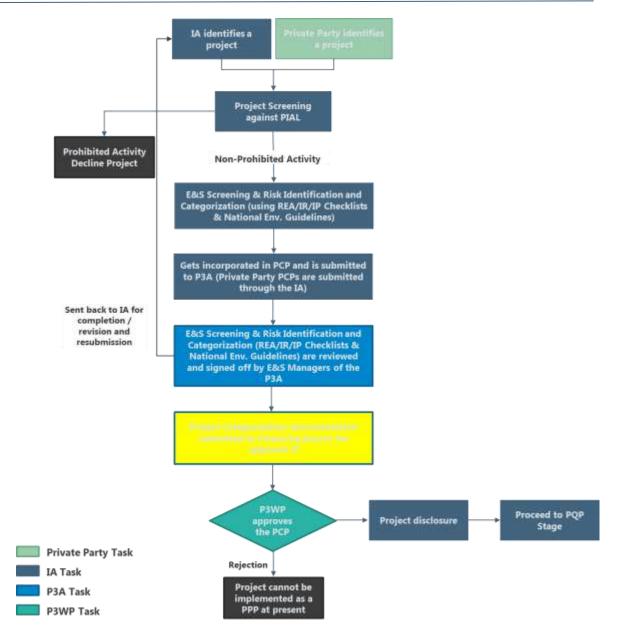
With respect to IR, PPP projects where 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating) should be assigned as Category A.

As for IPs, if the PPP project is expected to have a significant affect on language use, cultural practices, institutional arrangements, and religious or spiritual beliefs, livelihood systems that Indigenous Peoples view as essential to their identity or well-being than the project should be assigned as Category A.

• Category B: Moderate Risk. PPP projects with potential limited adverse environmental or social risks and/or impacts that are few in number, site-specific, few if any of them are irreversible, and readily addressed through mitigation measures.

All projects listed under Schedule I of the Pakistan EPA Review of IEE/EIA Regulations, 2000 are included in this category. An Initial IEE is required for such PPP projects in accordance with the Pakistan EPA Review of IEE and EIA Regulations, 2000 along with any specific E&S safeguard requirements of the Financing Source(s) that might apply.

- Category C: Low Risk. PPP projects that have minimal or no adverse environmental or social risks and/or impacts.
- 116. The REA and additional screening will inform the E&S Risk Categorization.
- 117. The E&S risk categorization is to be recommended by the entity preparing the PCP, whether it is the IA or a Private Party. Once PCP is received, the Federal P3A will assess whether the recommended risk category is commensurate to E&S risks identified for the project. If the IA is seeking funding from the PDF and that project-specific funding is received from a Financing Source, the assigned risk category will be approved by the Financing Source.
- 118. The Federal P3A will disclose the risk category and the basis for that classification on the Federal P3A website as soon as P3WP approves the project proposal.
- 119. The E&S Managers of the Federal P3A will review E&S risks and impacts on a regular basis, including during implementation. At any given stage of the project, changes in the risk profile should be reflected on the risk classification to ensure that it continues represent risks and impacts of the project. If any, Financing Source will be made aware of the category change in a timely manner (if the project received finding from a Financing Source). Any change to the classification will also be disclosed to the public.



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6.2 Stage 2: Project Qualification Proposal Stage

- 120. The PQP can be prepared by the IA in accordance with the P3A APF Regulations. PQP submitted by any of these entities will be reviewed by the Federal P3A. Post review, the P3A will forward the PQP along with its recommendations and comments to the P3WP for its action.
- 121. PQP among other things shall cover the following information:
 - a. a pre-feasibility and an outline of the transaction structure of the project;
 - a technical study explaining the bankability of the project as well as affordability for end-users;
 - c. analyses with respect to environmental, social and gender impact of the project considering applicable international best practices;
 - d. detailed information as to any government support which may be required in connection with the project including funding through the PDF and/or the VGF; and
 - e. reports from stakeholder consultations conducted, including market sounding.
- 122. In case the IA had submitted a PCP for the project and it was approved, it can start preparing the PQP immediately on the approval of the PCP. However, as per the PPP Manual, submission of PCP is not a mandatory pre-condition to prepare and submit a PQP and hence the IA can decide to directly prepare and submit the PQP. In this case, the PQP is required to contain all E&S related the information and documents that are requested under PCP as described above.
- 123. PPP manual states that if the IA submits a PCP and it is rejected, it cannot submit a PQP for the same project with the same scope and structure, unless it submits a revised PCP which is subsequently approved.
- 124. PQP is the stage where the relevant E&S assessments are conducted, such as assessment of potential environmental and social risks and impacts of the project.
- 125. In addition, PQP is include an Environmental and Social Action Plan (ESAP).

6.2.1 Environmental and Social Assessment

- 126. Party preparing the PQP will carry out an E&S assessment of the project. The E&S assessment will be commensurate to E&S risk category assigned to the project.
- 127. The E&S assessment will be based on current information, including an accurate description and delineation of the project and any associated aspects, and E&S baseline data at an appropriate level of detail sufficient to inform characterization and identification of risks and impacts and mitigation measures. The assessment will evaluate the project's potential E&S risks and impacts in detail; examine project alternatives; identify ways of improving project selection, siting, planning, design and implementation in order to apply the mitigation hierarchy

for adverse environmental and social impacts and seek opportunities to enhance the positive impacts of the project.

- 128. The E&S assessment will include stakeholder engagement as an integral part of the assessment.
- 129. E&S assessment and compliance requirements per risk category is listed below:

E&S Assessment and Compliance Requirements				
Risk Category	Environment	Involuntary Resettlement	Indigenous Peoples	
Category A: High or Substantial	Comply with Pakistan national legal requirements, and Financing Source requirements.	Comply with Pakistan national legal requirements, and Financing Source requirements.	Comply with Pakistan national legal requirements, and Financing Source requirements.	
	An environmental impact assessment (EIA) that fulfils both national and Financing Source environmental regulatory requirements is required.	A culturally appropriate and gender-sensitive social impact assessment (SIA) is required.	A culturally appropriate and gender-sensitive social impact assessment (SIA) is required.	
	The Draft EIA report shall be made publicly available (for example at P3A and IA's website as well as the Financing Source's website, if so desired, and locally) a minimum of 120-days prior to the PPP project's approval by the P3WP.	Land Acquisition and Resettlement Plan (LARP) or Livelihood Restoration Plan (LRP) to be prepared as per Appendix XI. The Financing Source's prior review and issuance of clearance of the LARP will be required.	An Indigenous Peoples Plan (IPP), including assessment of social impacts, is required as per Appendix XII. Likewise, Financing Source's prior review and issuance of clearance is needed.	
Category B: Moderate	Comply with Pakistan national legal requirements, and Financing Source requirements.	Comply with Pakistan national legal requirements, and Financing Source requirements.	Comply with Pakistan national legal requirements, and Financing Source requirements.	
	Environmental examination (IEE) is required. Final version of the IEE report needs to be disclosed on the P3A/IA/Financing Source's websites once the report has been cleared by both PEPA and its NOC has been	LARP or LRP to be prepared as per Appendix XI. The Financing Source's clearance is not required.	An IPP, including assessment of social impacts, is required. Where IPs are the overwhelming majority of direct project beneficiaries, the elements of the IPP could be integrated into the project design in	

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	issued and clearance has been obtained from the Financing Source.		lieu of preparing a separate IPP. Financing Source's prior review is not needed.
Category C: Low	No environmental assessment is required although environmental implications need to be reviewed. Such PPP projects may be required to follow the sectoral E&S guidelines issued by the PEPA along with any specific E&S safeguard requirements of the Financing Source(s) that might apply.	Social Due Diligence Report (SDDR) to be prepared and clearance will be obtained from P3A. The SDDR is to fulfil Financing Source requirements.	SDDR to be prepared to fulfil Financing Source requirements.

- 130. Category A and Category B projects should include inventory of lost assets, census and socioeconomic assessment of physically / economically displaced household with applicable entitlements.
- 131. Due to the ongoing COVID-19 pandemic, different financing sources have made it mandatory for all sub-projects being proposed for financing to be screened from a COVID-19 aspect for both the E&S safeguards activities that need to be conducted as part of the project preparation. Sample COVID-19 screening forms required by the ADB for both Environment and Social safeguards are provided as Annexures XXIII and XXIV respectively.
- 132. The procedural flow for the E&S safeguards management process as part of the PQP stage for the different PPP projects based on their respective categorization is provided in Figure 5.2 below.
- 133. For a project involving involuntary resettlement, a resettlement plan will be prepared that is commensurate with the extent and degree of the impacts. The degree of impacts shall be determined by (i) the scope of physical and economic displacement, and (ii) the vulnerability of the affected persons.

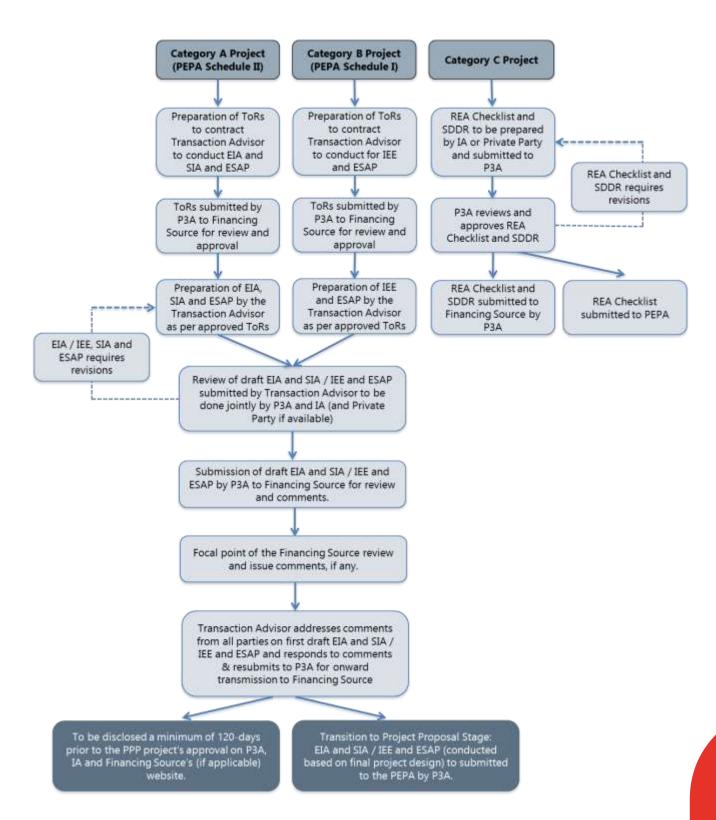
6.2.2 Environmental and Social Action Plan

134. An Environmental and Social Action Plan (ESAP) will be developed based on the findings of EIA and SIA to identify strategies and actions for i) mitigation of identified E&S risks and impacts of the project, and ii) compliance with E&S safeguards, regulations, national standards and Financing Source's policies.

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 - 135. It will set out the material measures and actions required for the project to meet Pakistan national legal requirements and Financing Source requirements over a specified timeframe. If deemed relevant and was prepared, LARP, LRP and/or IPP will be chapters in the ESAP.
 - 136. The ESAP will be developed with the meaningful participation of project-affected parties.
 - 137. The ESAP is to be a time-bound phased with a budget allocation to achieve such a plan.
 - 138. The P3A will require the IA and the Private Party to implement a process that allows for adaptive management of potential project changes or unforeseen circumstances. The agreed adaptive management process will be set out in the ESAP. The process will specify how such changes or circumstances are to be managed and reported, and how any necessary changes will be made to the ESAP and the management tools used by the IA and the Private Party.
 - 139. The ESAP is to be made publicly available (for example at P3A and IA's website as well as the Financing Source's website, if so desired, and locally) a minimum of 120-days prior to the PPP project's approval by the P3WP.

6.2.3 Procedures for E&S Assessment of PPP Projects

- 140. The Federal P3A will assess scope of E&S assessment studies and required human (expert staff positions) for conducting detailed impact assessments and preparation of requisite EIA, IR and IP planning documents commensurate with the complexity of the investment. The E&S Managers in P3A will facilitate the IA to develop and include TOR for E&S safeguards assessment advance requests in the bidding documents for hiring Transaction Advisors. And advance requests for allocating release of required funds and resources for preparation of requisite E&S safeguards due diligence documents including LARPs, LRPs and IPPs if so needed.
- 141. The P3A and IA will endeavour to ensure that the Transaction Advisor should mobilize adequately qualified staff and resources to conduct E&S assessment and preparation of requisite LARP, LRP and IPP (if so needed). The PPP Nodes will ensure that the project location and ROW alignment is fixed and Section-4 of LAA 1894 is published before commencing measurement surveys, socio-economic assessment and consultations with the affected households.
- 142. The detailed environmental review and assessment procedures for PEPA along with other Financing Sources, and timelines for approval of the three different categories of projects are provided as Appendix XIX and XX respectively.



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6.3 Stage 3: Project Proposal Stage

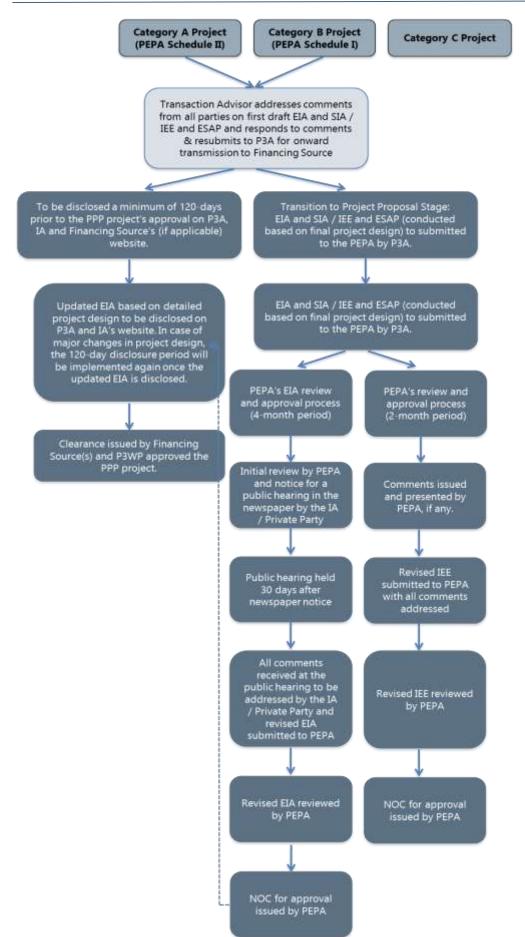
- 143. Project Proposal is the detailed proposal submitted by the IA to the Federal P3A after it has received approval of the PQP prepared in respect of a qualified project.
- 144. Project Proposal defines the key structure, and technical and commercial terms of the PPP Contract to be executed between the IA and the Private Party. It shall cover:
 - a. A detailed feasibility study;
 - b. Draft bidding documents including a draft public private partnership agreement; and
 - c. such related documentation or information as the Authority may, from time to time, require.
- 145. The feasibility study constitutes a comprehensive assessment of the qualified project to provide the basis for:
 - a. Approval of the project to proceed to the procurement stage;
 - b. Finalisation of the PPP arrangement and the commercial principles of the PPP Contract;
 - c. Approval of the government support measures and budgeting for these measures; and
 - d. Definition of the evaluation criteria for the selection of the Private Party.
- 146. The Federal P3A is to ensure that all concession agreements for PPP projects financed through the VGF will contain adequate E&S protection covenants requiring, among other things, that concessionaires / private parties comply with:
 - a. All applicable laws and regulations of Pakistan;
 - b. The Financing Sources' E&S safeguard policies;
 - c. Core labor standards and the applicable laws and regulations of Pakistan, including, but not limited to, the requirements relating to
 - i. workplace occupational safety norms;
 - ii. no use of child labor;
 - iii. no discrimination against workers in respect of employment and occupation; and
 - iv. no use of forced labor;
 - d. Timeline for informing the IA of E&S related incidents;
 - e. Obligations of the IA to support the implementation of the ESAP;
 - f. Establishment and maintenance of a grievance mechanism.
- 147. If this phase leads to significant changes in the project design, the EIA and the SIA or the EEI, as well as the ESAP is to be revised to reflect the design changes. Based on detailed project design to be disclosed on P3A, IA and Financing Source's (if applicable) website. In

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case of major changes in project design, the 120-day disclosure period will be implemented again once the updated EIA is disclosed.

- 148. EIA and SIA / IEE and ESAP (conducted based on final project design) to submitted to the PEPA by P3A.
- 149. The P3A E&S Managers will coordinate with IA, review and assess progress on land acquisition and social assessment, conduct site visits (as needed) and guide the safeguards staff in IA and Transaction Advisors on noted gaps, safeguards due diligence scope and level of assessment required based on feasibility level and/or final design.
- 150. The P3A and IA will endeavour that the land acquisition process and the notification under Section 5 (at least) is issued and published before finalizing the LARP based on detailed design. Ideally, the social safeguards due diligence for project processing should stick to the outlined procedures and implementation ready LARPs based on detailed design should be delivered to conclude social safeguards due diligence before appraisal of the project. However, if the detailed design and land acquisition is to be completed by the Private Party after appraisal of the project, the P3A and IA will ensure that the draft LARP prepared at feasibility level design should be submitted for P3A's review, acceptance and confirmation of the IR and IP category of the investment.
- 151. The P3A shall review the E&S safeguards due diligence documents prepared at feasibility stage, identify potential risks and ESMS compliance gaps, recommend measures and conditions in project appraisal documents and PPP agreement(s) for causing proponents to ensure LARPs and IPPs are finalized, implemented and monitored through project cycle.
- 152. It will be ensured that the social due diligence documents, including (draft) LARP (if the detailed design was not completed at project appraisal) and implementation ready final LARP (based on detailed design) are disclosed by the IA to the affected persons and by the P3A on its websites before P3AWP's meeting for review and approval of the project. The P3A endorsed draft and final LARPs/IPPs LARPs/IPPs for all Category A projects will be subject to review, acceptance and disclosure by the Financing Source.
- 153. The procedural flow for the E&S safeguards management process for the different PPP projects based on their respective risk categorization is provided in the figure below.
- 154. The detailed environmental review and assessment procedures for PEPA along with other Financing Sources and timelines for approval of the three different categories of projects are provided as Annexure XIX and XX respectively. The procedural flow for the social assessment process is reflected in figure below.

² Publication of Section 6 is formal declaration about acquired land for public purpose that is followed by announcement of land awards and disbursement of compensation.

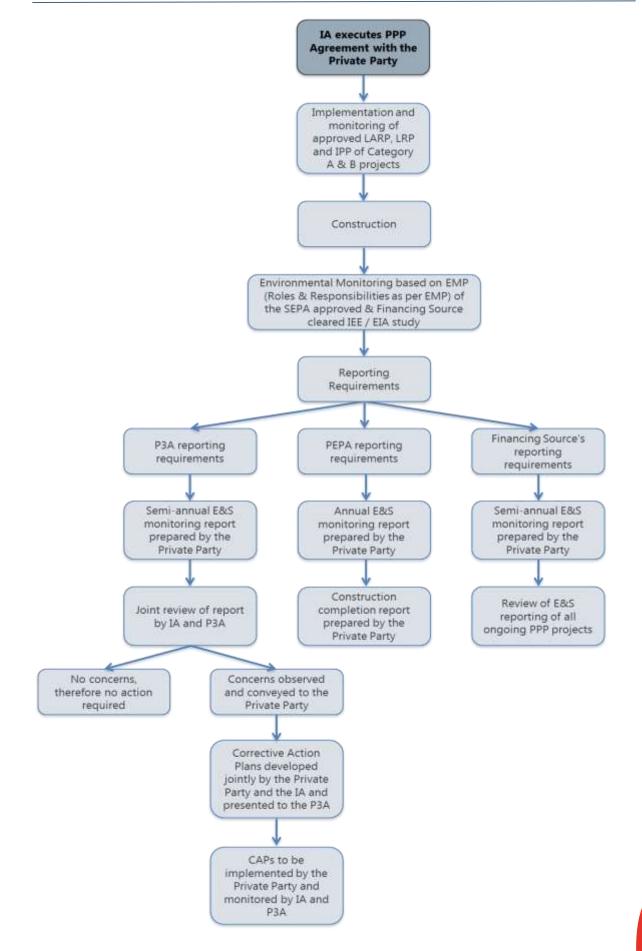


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6.4 Stage 4: Project Implementation and Operations Stage

- 155. Once PPP Agreement is signed, the IA is the main body to monitor E&S compliance of the Private Party. Nonetheless, while having a broader role in the assessment and monitoring of all project-related activities, the P3A will be continuously involved in the periodic monitoring and reporting until the completion of the particular PPP project.
- 156. The IA and the Private Party will ensure that all operations are monitored with the meaningful participation of project-affected parties.
- 157. The P3A will require the IA and the Private Party to implement the measures and actions identified in the ESAP diligently, in accordance with the timeframes specified in the ESAP, and to review the status of implementation of the ESAP as part of its monitoring and reporting.
- 158. The P3A will cause the IA to ensure early release of funds for completing land acquisition as well as implementation of LARPs and IPPs in a manner consistent with the ESMS provisions, national laws and social safeguards requirements of the Financing Source(s). It will be ensured that the requisite safeguards management staff is deployed in the Project Management/Implementation Units of the Private Party; LARP implementation, monitoring and reporting is in line with the LARP/IPP provisions and ESMS requirements; and periodic E&S monitoring reports are prepared and submitted to the IA and P3A for their review and acceptance.³
- 159. The P3A and IA will ensure that the civil works implementation schedule is synchronized with the land acquisition and implementation of LARPs and construction works will only be allowed in sections where land acquisition is completed and implementation of LARP is confirmed. The sections with on-going land acquisition and LARP implementation will not be allowed and opened for construction until LARP implementation achieved. The IA will prepare and submit periodic monitoring reports through P3A's review and acceptance.
- 160. The Federal P3A through its Social Safeguards Manager shall conduct project site visits and monitoring of the implementation of LARPs and IPPs for Category A and Category B projects. The IA and P3A safeguards teams will: conduct progress review missions, assess compliance with the social management requirements of ESMS, identify gaps and recommend corrective actions to be implemented by the IA, Project Management Units and the Private Party to ensure project implementation remain compliant with ESMS provisions, land acquisition laws and social safeguards requirements of the Financing Source(s). Based on reviewed social safeguards progress, annual social safeguard monitoring reports as outlined in Appendix XXI will be compiled by the P3A to demonstrate ESMS compliance status of ongoing projects.

³ An example in case of ADB (as Financing Source) could be the following documents, specifically but not limited to Section G and H of its Chapter-VIII: https://www.adb.org/sites/default/files/project-documents/48404/48404-003-rp-en_2.pdf



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6.4.1 Pakistan EPA Requirements

- 161. The Review of IEE/EIA (2000) Regulations provide for pre-approval inspections and post-approval monitoring. The EPA while granting approval to the IEE/EIA, may impose two types of conditions. The first condition relates to the compliance by the proponent, with the conditions provided in the IEE/EIA i.e., conditions of design and mitigatory and other measures as provided in the IEE/EIA. The second one is more generic and gives the EPA the authority to impose any other conditions. The proponent is required to accept these conditions by executing an undertaking as provided in Schedule VII of the Regulations.
- 162. Before commencing the operations, the proponent is required to obtain written confirmation (accompanied by an Environmental Management Plan (EMP), from the Agency that the conditions of approval are duly complied with.
- 163. The proponent is required to submit a report to the EPA on completion of construction of the project followed by an annual report summarising operational performance of the project, with reference to conditions of approval and maintenance and mitigatory measures adopted by the project.
- 164. The duly authorised staff of the EPA has the authority to enter and inspect the project site, and the proponent is required to ensure full cooperation to facilitate the inspection. The proponent is obliged to provide any information required by the EPA.

6.4.2 Labor and Working Conditions

- 165. The aspect of social protection of labor who will be hired on P3A projects, and their working conditions, the P3A will ensure that the IA and the Private Party comply with applicable labor laws in relation to the Investment. The IA and the Private Party should take the following measures to comply with the core labor standards:
 - a. Carry out its activities consistent with the intent of ensuring legally permissible equal opportunity, fair treatment and non-discrimination in relation to recruitment and hiring, compensation, working conditions and terms of employment for its workers (including prohibiting any form of discrimination against women during hiring and providing equal work for equal pay for men and women);
 - b. Do not restrict its workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and
 - c. Engage contractors and other providers of goods and services:
 - (i) Who do not employ child labor⁴ or forced labor⁵;

⁴ Child labour means the employment of children whose age is below the statutory minimum age of employment in the Pakistan Labour Policy 2010, or employment of children in contravention of International Labour Organization Convention No. 138 'Minimum Age Convention" (www.ilo.org).

⁵ Forced labour means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty. {The bonded Labour System (Abolition) Act 1992}

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 - (ii) Who have appropriate management systems that will allow them to operate in a manner which is consistent with the intent of (A) ensuring legally permissible equal opportunity and fair treatment and non-discrimination for their workers, and (B) not restricting their workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and
 - (iii) Whose subcontracts contain provisions which are consistent with paragraphs (i) and (ii) above.
 - 166. The above measures should be incorporated in the ESMP. The monitoring and reporting requirements should also state that the (i) the IA and the Private Party will provide P3A with an annual report on its compliance with the measures identified above. P3A should monitor the compliance of the IA and the Private Party and include this in the Semi-Annual Environmental and Social Performance Report.

6.4.3 Use of Security Forces

167. Certain projects may require use of security forces, for example to ensure assets are not harmed. In such cases, the community health, safety, and security need to be considered with diligence. International best practice in use of security forces is detailed in the IFC's Good Practice Handbook: Use of Security Forces: Assessing and Managing Risks and Impacts (2017). The document provides project-level guidance for private sector companies operating in emerging markets to better understand and implement the security-related provisions. Private party in a PPP agreement, who is deploying security forces or are engaging with them, is responsible to review this document and take necessary precautions to protect community health, safety, and security. Precautions include appropriate screening, training, equipping and monitoring of direct or contracted workers providing security services.

6.5 Information Disclosure and Grievance Redress Mechanism

- 168. The Federal P3A is to disclose each project in its portfolio after P3WP approval of the PCP together with appropriate information and documentation as described in aforementioned sections. The information disclosure shall be updated with additional documentation as project progresses and should reflect any changes in the risk category, if any.
- 169. If funding is received from Financing Source(s), this information shall also be made available to the public along with name and contact information of the grievance redness mechanism (GRM) of the Financing Source(s) and its independent accountability mechanism, if any.⁶

⁶ Independent Accountability Mechanisms Network provides such information: http://independentaccountabilitymechanism.net/

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 - 170. The Federal P3A has established a GRM to address and resolve E&S related concerns, complaints and grievances of project affected peoples and/or their representatives, such as civil society organizations in a gender sensitive manner.⁷
 - 171. The Federal P3A website contains an online form where grievances can be shared. In addition, the Federal P3A has placed a physical mailbox where grievances can be sent. The address is: xxxxxx.
 - 172. Both the online and physical mailboxes are to be monitored regularly, at least once a week.
 - 173. The GRM provides the option to make the submissions anonymously for those who are concerned of retaliation and/or discrimination. In addition, the GRM response will seek to prevent any and all retaliation and/or discrimination should the project affected people or their representative chose to share their identity or provide information that reveals their identity.
 - 174. The respective Financing Source(s) will be requested to provide all required support to the P3A in endeavouring towards further development and implementation of the GRM for the first few PPP projects.
 - 175. P3A also requires each IA, as well as Private Party to establish a project-based GRM for speedy and amicable resolution of community concerns and grievances about E&S related issues.
 - 176. The GRM, to be set up and managed by the IA and Private Party (each) will: receive, review and resolve any grievances that are received from any PPP project affected persons, including physically and economically displaced persons and thereby, facilitate the efficient and effective implementation of the ESMS by the IAs and Private Parties.
 - 177. The IA- and Private Party-based GRM will maintain records of the following:
 - i. Details of information disclosure and consultations, if any, with affected people, local communities, civil society groups, and other stakeholders; and
 - ii. Complaints, grievances, or protests received from local communities;
 - iii. Recording dates and organizations involved;
 - iv. Actions taken to resolve grievances, any outstanding issues;
 - v. Proposed measures for resolution;

Guidance on this subject can found in a series of publications of the Compliance Advisor Ombudsman, the independent accountability mechanism of the International Finance Corporation and Multilateral Investment Guarantee Agency of the World Bank Group: a) *Getting Started with Dispute Resolution*, https://www.cao-ombudsman.org/resources/reflections-practice-series-1-getting-started-dispute-resolution b) *Representation*, https://www.cao-ombudsman.org/resources/reflections-practice-series-3-joint-fact-finding d) *Guidance Note: How to Adopt a Gender-Inclusive Approach to Dispute Resolution* https://www.cao-ombudsman.org/sites/default/files/2021-06/CAODisputeResolutionGenderGuidanceNoteFINAL%20%281%29.pdf

- vi. Details of approach/methodology on addressing the concerns and issues raised at consultations.
- 178. The P3A, at its part, will also maintain the summarized / brief record of the all the GRM activities carried out at IA's level GRM.
- 179. The GRM framework between P3A, IA, and Private Party follows a tiered approach based on the notion that problems are often resolved more easily, cheaply, and efficiently when they are dealt with early and locally.
- 180. Preferably, project affected peoples or their representatives first approach the GRM of either the IA or the Private Party based on the project life cycle stage the grievance occurs in. If the grievance is unresolved after the actions of the Private Party and/or the IA, then approaches the P3A.
- 181. The project affected peoples and/or their representatives also have the option to approach the GRM of the Financing Source and/or the independent accountability mechanism (IA) of the Financing Mechanism, as well as the court of law of Pakistan.
- 182. In addition to the GRM, the complainant may also approach the Environmental Protection Tribunal, established under Section 21 of the Pakistan EPA, 1997 and the Environmental Tribunal (procedures and functions) Rules, 2008. A case can be filed with the environment tribunal after giving 30 days' notice of the contravention to the relevant environmental protection agency and his or her intention to make a complaint to the environmental tribunal.
- 183. If still the grievance remains unaddressed, the complainant may directly approach the Green Bench of the High Court or the Supreme Court⁸.
- 184. While the preferred flow is depicted in the figure below, the project affected peoples and their representatives have the right to escalate the process as they see fit.
- 185. The GRM of the P3A is triggered upon directly receiving a grievance from project affected peoples and/or their representatives or when IA or the Private Party requests support from the P3A in addressing a grievance.
- 186. If P3A GRM receives a direct submission, the E&S Managers are to view the submission and determine whether it is pertaining a project within the portfolio of the P3A. If it is, E&S Managers will determine whether IA and/or the Private Party has also received a complaint, unless concerns over retaliation from IA and/or the Private Party does not render disclosing the complaint to the IA or the Private Party appropriate. 9 Based on the nature of the

⁸ Under the Constitution, the Supreme Court of Pakistan exercises original, appellate, and advisory jurisdiction. It exercises its original jurisdiction concurrently with the High Courts for the enforcement of fundamental rights where a question of public importance is involved (Article 184 (3)). The Supreme Court entertains the environmental cases under Article 184 (3).

⁹ Guidance on how to address threats and reprisals are can be found at:

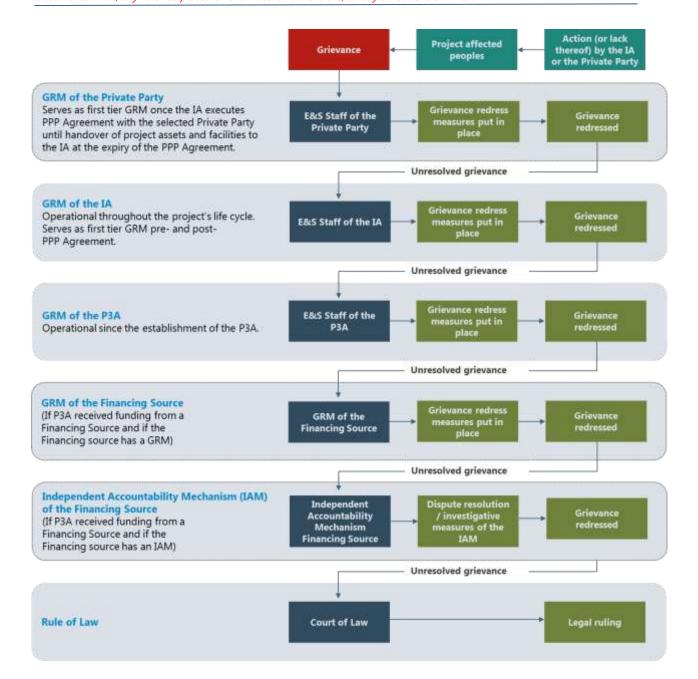
http://independentaccountabilitymechanism.net/ocrp002p.nsf/0/ce43d67170fcd8f3482583a20026ab13/\$file/guide for iams on measures to address the risk of reprisals in complaints management february 2019.pdf

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grievance, the P3A will determine appropriate action and take necessary steps to address and resolve the issue in cooperation with the IA and Private Party.

- 187. The P3A will endeavor to ensure that all project agreements for PPP projects contain provisions enabling: (a) Representatives of the Financing Source to inspect the PPP projects and any relevant records and documents; and (b) The Financing Source, in case of any breach in any PPP project being financed by them to require concessionaire to bring the PPP projects into compliance with all applicable laws and regulations of Pakistan and the laws applicable.
- 188. Moreover, the P3A will endeavor to monitor the performance and compliance of ESMS guidelines / policies, pertaining to ESAP implementation, in the grievance redress process being conducted by IAs and Private Party, and may conduct field visits (if required) in this regard. It is pertinent that the overall responsibility to run the GRM successfully while meeting the desired results, will be upon the IA and the Private Party prior to opting the court option by the affected person / party. P3A will also be involved in communicating the information, specifically EIAs and ESAP (approved by Financing Source), in coordination with the IA and the Private Party.

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6.6 Internal ESMS Audit Procedure

- 189. The IA and the Private Party are required to follow comply with this ESMS. As such, the P3A reserves the right to conduct an audit to:
 - Assess the IA and the Private Party's ability to address relevant E&S risks and impacts of the project;
 - ii. Review the performance and compliance with respect of applicable to laws and regulations related to E&S matters, and

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 - iii. Identification of the IA's, the Private Party's and other relevant stakeholder groups and ongoing stakeholders' engagement activities for the project.
 - 190. The IA and the Private Party are expected to cooperate with the P3A in providing information and documents necessary to complete the audit.
 - 191. If non-compliance or points of improvement are detected, the IA and Private Party will agree on the follow-up action for each of the audit findings and agree on a timeframe to implement the follow-up actions.

6.7 Track Record in Environmental and Social Management

192. To assess the performance of the P3A portfolio with regards to E&S compliance of past PPP projects, this section shall be updated based on the track record in implementation of E&S safeguards for the respective PPP projects.

6.8 External ESMS Audit Procedure

- 193. The P3A may be subjected to an annual independent auditing of its ESMS, limited to the PPP projects financed by the respective Financing Source, that will include:
 - iv. An assessment of the P3A's ability to address relevant E&S risks and impacts of its business and operations;
 - v. Review of performance in respect of applicability to laws and regulations related to E&S matters, and
 - vi. Identification of the P3A's and other relevant stakeholder groups and ongoing stakeholders' engagement activities. The audit will cover the ESMS within the P3A as well as selected PPP projects for their implementation compliance to safeguard requirements.
- 194. External and independent resource persons will be identified as ESMS auditors and will undertake this audit. The ESMS auditors will have the experience to do both management systems audits as well as audits of PPP projects. Resource persons either as individuals or agencies certified as auditors by reputed accreditation bodies will be employed. P3A shall ensure that the audit team has a good mix of both auditing and subject knowledge/experience on environmental and social safeguards.
- 195. The P3A will provide required information on their activities to the auditor and provide proper support and cooperation in the conduct of the audit. All PPP projects that are categorized to have high impact (Category A) will be covered in these audits as long as disbursements from the Financing Source(s) have been made in the current or the previous year. Approximately 25% of other PPP projects will be selected, and will necessarily include at least one PPP project from different project types.

196. ESMS auditors will submit an audit report to the P3A for follow-up. The P3A CEO will agree on the follow-up action for each of the audit findings and agree on a timeframe to implement the follow-up actions.

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Appendix I: National Policies and Legislations relevant to Environmental and Social Safeguards

Policy/Legislation	Description
Pakistan Penal Code 1860	This outlines the penalties for violations concerning pollution of air, water bodies and land. Sections 272 and 273 of this Act deal with the adulteration of food or drink. Noise pollution has been covered in Section 268, which defines and recognizes noise as a public nuisance. "A person is guilty of a public nuisance who does any act or is guilty of an illegal omission which causes any common injury, danger or annoyance to the public or to the people in general who dwell or occupy property in the vicinity, or which must necessarily cause injury, obstruction, danger or annoyance to persons who may have occasion to use any public right
Colonization of Government Lands Act, 1912	This Act, unless the Provincial Government, otherwise directs, applies to land to which the provisions of the Government Tenants (Punjab) Act 1893, have been applied and to any other land to which the Provincial Government may by notification in the Official Gazette apply it and which at the time of the notification was the property of the Provincial Government, provided that unless the Provincial Government by general or special order otherwise directs nothing in Sections 20, 21, 22 and 23, or in the proviso to section 14, of this Act shall, apply to tenancies specified in Schedule I of this Act, or to any class of tenancies created hereafter which the Provincial Government may declare to be scheduled tenancies under this section.
Forest Act 1927	The act authorizes government department to establish forest reserves and protected forests and imposes restrictions on activities with the forest. The department is then given authority to make rules for activities allowed or prohibited in forest reserves and forest produce ranging from notification for pasturing lands, agriculture or cutting of trees. The government can notify new areas as forest reserves or de-notify a previously declared forest.
Pakistan Antiquities Act 1975	The Antiquities Act of 1975 ensures the protection of cultural resources in Pakistan. The act is designed to protect antiquities from destruction, theft, negligence, unlawful excavation, trade and export. Antiquities have been defined in the Act as ancient products of human activity, historical sites, or sites of anthropological or cultural interest, national monuments, etc. 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.	
The Bounded Labour System (Abolition) Act, 1992	According to this act, forced labour is any type of work or kind of service in which someone engages involuntarily and under implied coercion a manifest threat of a party or oppression measures. The bonded labour can exist in following forms under different situations:	
	Bonded labour in exchange of advance/an amount of money given before services are rendered, received by a person or his family.	
	Bonded labour as a consequence of some social or customary obligations.	
	Bonded labour in exchange of an economic benefit/consideration received by a person or his family,	
	Bonded labour of a guarantor in exchange for debtor who was unable to pay off his debt.	
	Bonded labour is prevalent in agriculture sector, brick kilns, domestic work and begging	
National Conservation Strategy 1992	Pakistan National Conservation Strategy is one of the key documents which served as the basis for developing policy documents on environmental issues in Pakistan. This strategy outlines Pakistan's primary approach towards encouraging sustainable development, conserving natural resources and improving efficiency in the use and management of resources.	
National Environment Policy (2005)	The National Environmental Policy (hereinafter referred to as "NEP") was adopted in 2005 by the Federal Government driven from the National Environment Action Plan (approved in 2001) by Pakistan Environmental Protection Council. The NEP provides an overarching framework for addressing the environmental issues facing Pakistan, particularly, pollution of freshwater bodies and coastal waters, air pollution, lack of proper waste management, deforestation, loss of biodiversity, desertification, natural disasters and climate change. It also gives directions for addressing the cross-sector issues as well as the underlying causes of environmental degradation and meeting international obligations.	
Pakistan Labour Policy, 2010	Pakistan's Labour Policy aims at attaining its objectives in a manner best suited to the resources of the country and the present state of economy. The Policy covers the equitable adjustment of rights between workers and employers to be ensured in an atmosphere of harmony, mutually beneficial to workers and the management. It prohibits the use of Child	

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Labour. Article 11(3) of the constitution of Pakistan prohibits employment of children below the age of 14 years in any factory, mine, or any other hazardous employment. In accordance with this article, the Employment of Child Act 1991 disallows such child labour in the country. The Act states that no child shall be employed or permitted to work in any of the occupations set forth in the Act (such as transport sector, railways, construction, and ports) or in any workshop wherein any of the processes defined in the act is carried out.

National Sustainable Development Strategy, 2012

National Sustainable Development Strategy (NSDS) envisions to evolve a just and harmonious society in the country through promotion of a vibrant and equitable economic growth without overexploitation of natural resources with fair distribution of development dividends to all; in particular to the marginalized, poor and vulnerable in the society and to future generations. The NSDS is an attempt to define sustainable development and the pathway to a "green economy" in Pakistan's context. It lays out an adaptive system and approach that can be continuously improved, through regular updates, to respond to evolving challenges. The focus has been on integrating not only across the three overall dimensions of economic, social and environment but also integrating the goals with the existing development paradigm with the aim of shifting it on to a more sustainable pathway.

National Disaster Risk Reduction Policy, 2013

This policy introduces a proactive and anticipatory approach by laying special emphasis on risk assessment, prevention, mitigation and preparedness, with the aim of creating a resilient nation. The policy contains four chapters: (i) risk awareness and preparedness in Pakistan, (ii) the National Disaster Management Authority's (NDMA) vision for capacity development in Pakistan, with a focus on vulnerable populations; (iii) NDMA's plan for policy interventions, particularly for development in the areas of risk knowledge, mitigation, and preparedness; (iv) NDMA's implementation framework to mainstream DRR in Pakistan, including plans for financing, monitoring, and educating students on disaster preparedness.

Framework for Implementation of Climate Change Policy, 2013

The development of this Framework for Implementation of NCCP is a follow-up of the National Climate Change Policy (NCCP), the parent document providing broader framework concerning how to adapt to the changing impacts of climate and how to play a role in its mitigation. The framework for Implementation of NCCP is developed keeping in view the current and future anticipated climate change threats to Pakistan's various sectors. Furthermore, appropriate actions relating to disaster preparedness, capacity building, institutional strengthening; and

	awareness raising in relevant sectors has also been part of this document.
National Forest Policy, 2015	The goal of the policy is to expand the national coverage of forests, protected areas, natural habitats and green areas for restoration of ecological functions and maximizing economic benefits while meeting Pakistan's obligations to international agreements related to forests. The policy puts into focus the forests and rangelands together with the biodiversity that inhabit these ecosystems as part of the ecology and economy of Pakistan, and an important national heritage that needs to be conserved for present and future generations. The policy emphasizes on the sustainable management of natural resources through active partnership with communities and various stakeholders for goods and services to support community livelihood systems; not considering the revenue generation as principal motive for their management. Ecosystems and habitats that are unique in their biodiversity and face extinction need to be conserved through a well-managed protected area management system and legislation.
Pakistan Climate Change Act, 2017	This Act is aimed to meet Pakistan's obligations under international conventions relating to climate change and address the effects of climatic change. The Act, consisting of 19 sections divided into five Chapters and one Schedule, establishes the requirements to meet Pakistan's obligations under international conventions relating to climate change and address the effects of climate change. The Act set up three relevant institutions: Pakistan Climate Change Council, Pakistan Climate Change Authority, and Pakistan Climate Change Fund. This section shall evaluate the relevant provisions of the Climate Change Act, in light of these institutions.
National Climate Change Policy, 2021	The National Climate Change Policy was established in 2012 to ensure that climate change is mainstreamed in the economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development. The policy focuses on development sectors such as water resources, agriculture and livestock, forestry, human health, disaster preparedness, transport and energy.
	The goal of the policy is to ensure that climate change is mainstreamed in the economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development. Some of the measures include flood forecasting warning systems, local rainwater harvesting, developing new varieties of resilient crops, health impact assessment of changing weather patterns, promotion of renewable energy sources and efficient mass transport systems.

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National Wildlife Policy, 2021

National Wildlife Policy of Pakistan aims to promote conservation of wildlife resources including species, habitats and protected areas. The policy would provide the right direction and framework to conserve wildlife heritage promoting ecological, social, cultural and economic values of wildlife through sustainable management practices and to ensure good governance, including scientific management, accountability and transparency in all affairs of wildlife conservation. The prime goal of this policy was to maintain and improve the health and diversity of wildlife heritage and to promote its sustainable use for the benefit of future generations.

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Appendix II: Relevant Multilateral Environmental Agreements

Convention on Biological Diversity (CBD)

a. Pakistan Biosafety Rules, 2005

Pakistan Biosafety Rules, notified under SRO (I) 336(I)/2005 by Federal GOP, are applicable to;

- Manufacture, import and storage of microorganisms and genetic technological products for research whether conducted in laboratories for teaching and research, research and development institutes or private companies involved in the use and application of Genetically Modified Organisms (GMOs) and products thereof.
- All work involved in the field trial of genetically manipulated plants, animals (including poultry and marine life), microorganisms and cells.
- Import, export, sale and purchase of Living Modified Organisms (LMOs), substances or cells and products thereof for commercial purposes.

The rules also detail the various Committees constituted viz., National Biosafety Committee (NBC), Technical Advisory Committee (TAC), Institutional Biosafety Committee (IBC) at the institutional level, their functions, approvals required for various categories of material, etc.

b. National Biosafety Guidelines, 2005

Recognizing the potential benefits of the biotechnology in agriculture, health, industry, environment and energy sectors; and the concerns about the possibility of natural imbalance created due to mixing of genes from unrelated organisms; and likely hazards caused thereof if manipulated genes or products are allowed to move around freely in nature; and considering the apprehensions that certain transgenic organisms may be harmful or become harmful to economic plants, animals and human being; and discharging the obligations of the Convention of Biological Diversity (CBD) and Cartagena Protocols to which Pakistan is a signatory; the Minister of Environment, Pakistan constituted a National Biosafety Expert Committee that prepared guidelines after detailed deliberations with stakeholders to regulate the safe release of Genetically Modified Organisms (GMOs) and products thereof. The objective of these guidelines is to prevent unintentional negligence leading to misuse and irresponsibility by laboratory workers/researchers as well as the end- users.

These guidelines were prepared keeping in view the relevant guidelines by UNIDO, FAO, WHO, UNEP, and developed and developing countries with modification to suit Pakistan's unique and specific socioeconomic and geographic environment.

The guidelines consist of two parts; the first part relates to regulated work in laboratory research and field trials; and the second part deals with procedures for approvals which must be obtained to deregulate the regulated materials to allow their free movement and commercial uses.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention).

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted by the United Nations Environment Programme on 22 March 1989 and entered

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into force after due approval on 5 May 1992. The text of Basel Convention has since been updated multiple times taking into consideration the changing global needs and technological advances. The convention was negotiated as a result of transboundary toxic materials' dumping practices of developed countries in the wake of relatively stringent environmental laws in the developed world and lack of laws or implementation capacity constraints in the African, Eastern Europe and other developing countries. Pakistan became a signatory to the Convention in 1994 and is hence bound by the obligations of the text ever since.

Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention).

The Convention requires parties to adopt a general policy on the protection of the natural and cultural heritage, to set up services for such protection, to develop scientific and technical studies, to take appropriate legal, technical, scientific, and administrative measures and to foster training and education for such protection.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The Convention is set to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

Convention on the Conservation of Migratory Species of Wild Animals (CMS).

Bonn Convention on the Conservation of Migratory Species of Wild Animals aims to conserve terrestrial, marine and avian migratory species throughout their range. It is concerned with the conservation of wildlife and habitats on a global scale.

Convention on the International Maritime Organization (IMO).

The Convention is the one of the oldest international organizations. Its purpose is to provide machinery for cooperation among Governments on regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade. The organization encourages and facilitates the general adoption of the highest practicable standards in matters concerning the maritime safety, efficiency of navigation and prevention and control of marine pollution from ships and deal with the legal and administrative matters.

The Convention encourages the removal of all discriminatory and unnecessary restrictions by the Governments affecting shipping engaged in international trade so as to promote the availability of shipping services to the commerce of the world without discrimination.

Convention on Wetlands of International Importance (Ramsar Convention).

Convention on Wetlands of International Importance especially the Waterfowl Habitat and associated protocols and amendments promote conservation and sustainable use of wetlands. The Ramsar list of wetlands of international importance includes almost 1,800 sites (known as Ramsar Sites). There are currently 19 Ramsar sites in Pakistan.

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International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

Adopted by the Conference of the Food and Agriculture Organization of the United Nations (FAO) in November 2001 and entering into force in June 2004, the ITPGRFA is the only legally binding international agreement that specifically deals with the conservation and sustainable management of plant genetic resources for food and agriculture (PGRFA).

The objectives of this Treaty are the conservation and sustainable use of PGRFA and the fair and equitable sharing of the benefits arising from their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security. It also emphasizes the importance of national commitments and encourages international cooperation in this effort. The functions of the Governing Body of the ITPGRFA are promotion of the Treaty's full implementation, keeping in view its objectives. A technical group is also formed to advise on implementing farmers rights and develop options for promoting and guiding their realization on national level.

a. Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Eastern Region of its Distribution Area in South-West Asia

The agreement established a Commission for international cooperation for control of the desert locust through sharing of information, take measures necessary to control the plague of desert locust in their countries, maintain constant control mechanism and encourage training, survey and research work.

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides International Trade (PIC)

The Rotterdam Convention is an international treaty designed to facilitate informed decision-making by countries with regard to trade in hazardous chemicals. It establishes a list of covered chemicals and requires parties seeking to export a chemical on that list to first establish that the intended importing country has consented to the import. It also requires that a party seeking to export a chemical that is not listed under the Convention but that is subject to a ban or severe restriction in its own territory must provide notice to the importing country of the proposed export. The Convention applies to industrial chemicals and pesticides that meet the criteria for listing under the Convention, generally because they have been banned or severely restricted in party countries or are severely hazardous pesticide formulations. Chemicals are subject to the PIC procedure if they are included in Annex III of the Convention.

South Asia Co-operative Environment Programme (SACEP).

An inter-governmental organization, SACEP was established in 1982 by the governments of South Asia to promote and support protection, management and enhancement of the environment in the region. SACEP member countries are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. SACEP supports national government's efforts for environmental protection and sustainable development. Since its creation, SACEP has implemented a number of projects and programmes in the areas of environment education, environment legislation, biodiversity, air pollution, and the protection and management of the coastal environment. SACEP is also secretariat for the South Asian Seas Programme.

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Basel Convention on Control of Trans-boundary Movement of Hazardous Wastes and their Disposal

Basel Convention regulates the transboundary movement of hazardous waste and other waste with a stated purpose to protect human health and the environment against the adverse effects from generation and management of hazardous waste and other waste. The Convention provides for three sets of measures with binding obligations. These are strict control of the transboundary movement of hazardous waste; environmentally sound management of hazardous waste; and enforcement and implementation of the provisions of the convention at international and national levels.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Stockholm Convention seeks to protect human health and the environment from POPs, which are chemicals that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife.

United Nations Convention to Combat Desertification (UNCCD).

The UNCCD is the only legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid, and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. When land is degraded and usable land becomes scarce, women are differentially and disproportionately affected given their substantial role in agriculture and food production, greater vulnerability to poverty, and typically weaker legal protections and social status. The Conventions stresses the important role played by women in regions affected by desertification and/or drought, particularly in rural areas of developing countries, and the importance of ensuring men's and women's full participation in efforts to combat desertification and mitigate the effects of drought.

United Nations Framework Convention on Climate Change (UNFCCC).

United Nations Framework Convention on Climate Change sets the primary objective on stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Pakistan as a signatory to the treaty ratified it on national level in 1994.

Kyoto Protocol to the UNFCCC (Kyoto Protocol). Accessed 11 Jan 2005.

Kyoto Protocol to the United Nations Framework Convention on Climate Change was enabled through UNFCCC. It has more powerful and legally binding measures. It sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions.

Vienna Convention for the Protection of the Ozone Layer (Vienna Convention).

Vienna Convention for the Protection of the Ozone Layer - acts as a framework for the international efforts to protect the ozone layer with a primary objective to protect human health and the environment against adverse effects resulting from human activities that modify or are likely to modify the ozone layer.

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Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol).

The Montreal Protocol on Substances that Deplete Ozone Layer and associated amendments was enabled by the Vienna Convention, it is designed to protect the ozone layer by phasing out the production and consumption of several substances believed to be responsible for ozone depletion.

International Plant Protection Convention.

International Plant Protection Convention (Revised Text 1997) is targeted to prevent the international spread of pests and plant diseases. It requires maintenance of lists of plant pests, tracking of pest outbreaks, and coordination of technical assistance between member nations.

Agreement on the Network of Aquaculture Centres in Asia and the Pacific.

Under this agreement, an organisation is set-up to consolidate the establishment of an expanded network of aquaculture centres to share the responsibility of research, training and information exchange essential to aquaculture development in the region. Moreover, the organization is to conduct disciplinary and interdisciplinary research on selected aquafarming systems for adaptation or improvement of technologies and for development of new technologies.

Plant Protection Agreement for the South-East Asia and Pacific Region.

The agreement establishes the Asia and Pacific Plant Protection Commission which is authorized to review and promote the region's progress in the implementation of the Agreement. Trade-in plants and plant products are regulated by certification, prohibition, inspection, disinfection, quarantine, destruction, etc., as necessary

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Appendix III: ADB Safeguard Policy Statement

Environmental Safeguards

The ADB's SPS is approved by its Board of Governors and is required to be fully implemented on all ADB funded projects since June 2009. The SPS combines the three safeguard policies comprising the Involuntary Resettlement Policy (1995); the Policy on Indigenous Peoples (1998); and the Environment Policy (2002). The goal of SPS is to promote the sustainability of project outcomes by protecting the environment and people from project's potential adverse impacts. The objectives of ADB's safeguards are to:

- i. Avoid adverse impacts of projects on the environment and affected people, where possible;
- ii. Minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and
- iii. Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks.

For environmental safeguards, ADB has defined its policy objective as "to ensure the environmental soundness and sustainability of projects and to support the integration of environmental considerations into the project decision-making process." As per Policy, "the environmental safeguards are triggered if a project is likely to have potential environmental risks and impacts". The SPS outlines 11 policy principles for environmental safeguards compliance, which are provided in **Table 1** below. These Policy Principles elaborate the process of environmental assessment and management to be followed by proponents of projects and the Bank borrowers.

Table 1: ADB Policy Principles

	Policy principle	Summary	
1	Screening and categorization	Screening process initiated 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.	
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).	

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	Policy principle	Summary	
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.	
	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	
	Physical cultural resources	Conserve physical cultural resources and avoid destroying or damaging them. Provide for the use of "chance find" procedures.	

Comparison between GoP & ADB Safeguard policies

Most of the GoP and ADB requirements pertaining to environmental safeguard policies are similar. The environmental related steps for both types of policies i.e. EIA, IEE and Environmental Checklist preparation for Category A, B and C type of projects respectively in ADB terminology are equivalent to Schedule I, II and III type of projects in GoP terminology.

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The only difference is that while the GoP have categorically issued specific project types along with details regarding capacities and/or capital investments in order to classify projects into Schedule I, II or III, the ADB policies require the REA Checklist to be completed and assessed by ADB staff to officially issue a categorization of the project under consideration.

Social Safeguards

Development projects that tend to or cause change in patterns of use of land and, water and other natural resources may entail adverse impacts on people who use these resources for their livelihoods. The projects involve acquisition of land and assets through expropriation (using eminent domain) or other regulatory measures that affect housing, public and community structures and systems, social networks and social services which can be disrupted and productive assets including land, income sources and livelihoods of people can be lost. The people affected have no option except to rebuild their lives, incomes and asset base elsewhere.

The ADB's SPS 2009 requires that adverse land acquisition and resettlement (LAR) impacts of development projects are avoided or minimized (if avoidance is not possible), and mitigated and compensated in accordance with IR and IP policy principles and implementation and monitoring procedures. Pakistan's legal system also safeguards the interests of people related to project-induced acquisition of private land and assets fixed to the land through a set of legal instruments and laws that are explained below.

The SPS 2009 is based on the following objectives: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups. The following principles are applied to reach these objectives:

Table 2: SPS Scope Triggers and Policy Principles

Scope and Triggers:	The involuntary resettlement safeguards covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary.
Policy Princi	Screen the project early on to identify past, present, and future involuntary
	resettlement impacts and risks. Determine the scope of resettlement planning

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	through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.
2	Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
3	Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement
	value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that
	cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.
4	Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable
	access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
5	Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access

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	to adequate housing.
6	Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
7	Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets.
8	Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
9	Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.
10	Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.
11	Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.
12	Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

Comparison of LAA 1894 and ADB's SPS 2009

A comparison of Pakistan's LAA and ADB's SPS 2009 (**Table 3** below) shows that there exist major differences in the two instruments. The objective of this comparison is to identify if and where the two sets of procedures are in conformity with each other and more importantly where there are differences and gaps. The key ADB Policy Principles are (i) the need to screen the project early on the planning

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stage (ii) carry out meaningful consultation (iii) at the minimum restore livelihood levels to the pre-project conditions and improve the livelihoods of the affected vulnerable groups (iv) prompt compensation at full replacement cost is to be paid (v) provide displaced people with adequate assistance (vi) ensure that displaced people who have no statutory rights to the land that they are working are eligible for resettlement assistance and compensation for the loss of no-land assets and (vii) disclose all reports. **Table 3** below presents a gap-analysis between the Pakistan's LAA and ADB's SPS 2009.

Table 3: Comparison of LAA and ADB's SPS 2009

Pakistan LAA 1894		Proposed Measures to Address the Gaps
Compensation for land and other assets is based on average values and department unit rates that do not ensure replacement market value of the property acquired. However, LAA requires that a 15% compulsory acquisition surcharge supplement the assessed compensation.	DPs are to be compensated for all their losses at replacement cost, including transaction cost and other related expenses, without deducting for depreciation.	1. Land valuation is to be based on current replacement (market) value with an additional payment of 15%. The valuation for the acquired housing land and other assets is the full replacement costs keeping in view the fair market values, transaction costs and other applicable payments that may be required.
No provision for resettlement expenses, income/livelihood rehabilitation measures or allowances for displaced poor and vulnerable groups.	Requires support for rehabilitation of income and livelihood, severe losses, and for vulnerable groups.	Provision should be made to pay for 2. resettlement expenses (transportation and transitional allowances), 3. compensate for loss of income, and 4. provide support to vulnerable persons and 5. those severely impacted (considered to be those losing more than 10% of their productive assets).
Lack of formal title or the absence of legally constituted agreements is a bar to compensation/rehabilitation. (Squatters and informal tenants/leaseholders are not entitled to	a bar to compensation	Squatters, informal tenants/ leaseholders are entitled to compensation for 1. loss of structures and 2. livelihood and for relocation.

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Pakistan LAA 1894		Proposed Measures to Address the Gaps
compensation for loss of structures, crops).	compensation of all non- land assets.	
Land acquisition and compensation process is conducted independently by the Land Acquisition Collector following a lengthy prescribed legal and administrative procedure. There are emergency provisions in the procedure that can be leveraged for civil works to proceed before compensation is paid.	Involuntary resettlement is conceived, planned and executed as part of the project. Affected people are supported to re-establish their livelihoods and homes with time-bound action in coordination with the civil works. Civil works cannot proceed prior to compensation.	Respective EAs will prepare land acquisition and resettlement plans, as part of project preparation based on an inventory of losses, livelihood restoration measures, Pakistan law and principles enumerated in SPS. Where gaps exist in the interpretation of Pakistan law and resettlement practices, requirements of ADB's involuntary resettlement policy will prevail. Civil works may only proceed after the resettlement plan is implemented and compensation for loss of assets
No convenient grievance redress mechanism except recourse of appeal to formal administrative jurisdiction or the court of law.	Requires the establishment of accessible grievance redress mechanisms to receive and facilitate the resolution of DPs' concerns about displacement and other imposts including	EAs will establish easily accessible grievance redress mechanism available throughout project implementation that will be widely publicized within respective project area and amongst the DPs.

Remedial Measures to Bridge the Gaps

The following principles (LAR Policy for PPP Projects) have been adopted in this ESMS to address any gaps in ADB's SPS and applicable national laws, regulations and acts, etc.

i. LAR Policy for PPP Projects

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All projects/subprojects funded under the PPP project with ADB's funding are required to comply with Pakistan's LAA and the IR and IPs requirements (SR 2 & 3) of ADB's SPS 2009. Further in case of any gaps (as identified in **Table 3** above) in SPS 2009 and Pakistan's LAA 1894, the following LAR principles/policy measures will be applied to address them:

ii. Involuntary Land Acquisition and Resettlement:

- Avoid, minimize, mitigate or compensate all adverse impacts resulting out from acquisition of land and/or resettlement impacts (including economic and physical displacement of those affected by the projects/subprojects) in accordance with LAA 1894, and ADB's SPS 2009 (SR 2).
- ii. All projects/subprojects will be screened against ADB's Prohibited Investment Activities List (PIAL), and IR and IPs impacts, and accordingly categorized per SPS's IR/IP impacts significance criterion. Any project/subproject involving business activities included in the PIAL will not qualify for FI support using ADB funds.
- iii. For projects/subprojects that involve LAR impacts, LARPs will be prepared, implemented and monitored in accordance with SPS 2009 (SR 2) and applicable national/provincial laws, and monitoring reports provided to ADB and disclosed to DPs.
- iv. Non-title holders are also eligible for compensation at replacement costs (SR 2, para 10) for the loss of assets other than land, such as dwellings, and other improvements to the land provided they have been occupying/using the land or structure prior to establishing the project/subproject's cut-off date for eligibility for compensation/resettlement assistance. Special efforts will be made to identify the displaced persons losing livelihood (who are considered vulnerable) and will be provided with appropriate targeted assistance to help improve their standard of living or enable restoration to at least the pre-project conditions. No forced evictions will be carried out except in accordance with the provisions/entitlements and agreements with DPs as provided in the project-specific LARP and SPS 2009.

iii. Indigenous Peoples Impacts

Any project/subproject involving impacts on indigenous peoples who are defined in SPS as distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees; (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the protected areas and to the natural resources in these habitats and territories; (iii) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (iv) a distinct language, often different from the official language of the country or region.

i. An Indigenous People Plan (IPP) will be prepared, implemented and monitored in accordance SPS 2009 (SR 3) for all projects/subprojects that involve impacts on IPs as described in item v above.

ii. All projects/subprojects involving both IR and IPs impacts will be screened (for IR, IPs and PIAL) and categorized, based on the SPS's impacts significance threshold, first by PPP nodes (through environment and resettlement specialists deputed or to be hired by PPP nodes), LARPs and/or IPPs prepared, reviewed by PPP Cell and PSF (through environment and resettlement specialists deputed or to be hired), and implemented and monitored with monitoring reports provided to ADB on a semi-annual basis and disclosed to DPs by PPP Cell.

ADB's Indigenous Peoples Safeguards

Objectives: To design and implement projects in a way that fosters full respect for Indigenous Peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the Indigenous Peoples themselves so that they (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse impacts as a result of projects, and (iii) can participate actively in projects that affect them.

Table 4: ADB's Indigenous Peoples (IP) Policy Principles

S#	Policy principle	Summary	
1	Screening and categorization	Screen early on to determine (i) whether Indigenous Peoples are present in, or have collective attachment to, the project area; and (ii) whether project impacts on Indigenous Peoples are likely.	
2	Impact assessment	Undertake a culturally appropriate and gender-sensitive social impact assessment or use similar methods to assess potential project impacts, both positive and adverse, on Indigenous Peoples. Give full consideration to options the affected Indigenous Peoples prefer in relation to the provision of project benefits and the design of mitigation measures. Identify social and economic benefits for affected Indigenous Peoples that are culturally appropriate and gender and intergenerationally inclusive and develop measures to avoid, minimize, and/or mitigate adverse impacts on Indigenous Peoples.	
3	Meaningful Consultations	Conducted meaningful consultations with affected Indigenous Peoples communities and concerned Indigenous Peoples organizations to solicit their participation (i) in designing, implementing, and monitoring measures to avoid adverse impacts or, when avoidance is not possible, to minimize, mitigate, or compensate for such effects; and (ii) in tailoring project benefits for affected Indigenous Peoples communities in a culturally appropriate manner. To enhance Indigenous Peoples' active participation, projects affecting them will provide for culturally appropriate and gender inclusive capacity development. Establish a	

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S#	Policy principle	Summary	
		culturally appropriate and gender inclusive grievance mechanism to receive and facilitate resolution of the Indigenous Peoples' concerns.	
4	Information disclosure	Ascertain the consent of affected Indigenous Peoples communities to the following project activities: (i) commercial development of the cultural resources and knowledge of Indigenous Peoples; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of Indigenous Peoples. For the purposes of policy application, the consent of affected Indigenous Peoples communities refers to a collective expression by the affected Indigenous Peoples communities, through individuals and/or their recognized representatives, of broad community support for such project activities. Broad community support may exist even if some individuals or groups object to the project activities.	
5	Mitigation Measures	Avoid, to the maximum extent possible, any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected Indigenous Peoples communities participate in the design, implementation, and monitoring and evaluation of management arrangements for such areas and natural resources and that their benefits are equitably shared.	

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S#	Policy principle	Summary	
impact assessment with the assistance of qualic experts and that draw on indigenous knowledged the affected Indigenous Peoples communities. framework for continued consultation with the attended Peoples communities during project implement measures to ensure that Indigenous Peoples reappropriate benefits; identifies measures to avoor compensate for any adverse project impacts appropriate grievance procedures, monitoring attended.		Prepare an Indigenous Peoples plan (IPP) that is based on the social impact assessment with the assistance of qualified and experienced experts and that draw on indigenous knowledge and participation by the affected Indigenous Peoples communities. The IPP includes a framework for continued consultation with the affected Indigenous Peoples communities during project implementation; specifies measures to ensure that Indigenous Peoples receive culturally appropriate benefits; identifies measures to avoid, minimize, mitigate, or compensate for any adverse project impacts; and includes culturally appropriate grievance procedures, monitoring and evaluation arrangements, and a budget and time-bound actions for implementing the planned measures.	
7	Disclosure of Disclose a draft IPP	Disclose a draft IPP, including documentation of the consultation process and the results of the social impact assessment in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected Indigenous Peoples communities and other stakeholders. The final IPP and its updates will also be disclosed to the affected Indigenous Peoples communities and other stakeholders.	
8	An action plan Brepare an action plan for legal recognition of customary rights to and territories or ancestral domains when the project involves (i) activities that are contingent on establishing legally recognized relationship lands and territories that Indigenous Peoples have traditionally or customarily used or occupied, or (ii) involuntary acquisition of lands.		
9	Monitoring of Implementation of IPP	Monitor implementation of the IPP using qualified and experienced experts; adopt a participatory monitoring approach, wherever possible; and assess whether the IPP's objective and desired outcome have been achieved, taking into account the baseline conditions and the results of IPP monitoring. Disclose monitoring reports.	

Incorporating Social Dimensions and Social Protection

ADB Social Protection Strategy (2001) requires ADB to (a) ensure that vulnerable groups that maybe negatively affected by an ADB intervention are adequately compensated and mitigation measures put in place to avoid creating further poverty, (b) comply with internationally recognized core labor standards

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in the design and formulation of loans, and (c) as part of its regular loan reviews, monitor that these are complied with ADB's Social Protection Strategy (2001).

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Appendix IV: Prohibited Investment Activities List (PIAL)

Prohibited Investment Activities List (PIAL) of the ADB, which is largely consistent with the IFC Exclusion List (2007) is adopted in this ESMS. Accordingly, the following project activities do not qualify for P3A financing:

- (i) production or activities involving harmful or exploitative forms of forced labor¹⁰ or child labor;¹¹
- (ii) production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phaseouts or bans, such as (a) pharmaceuticals, ¹² pesticides, and herbicides, ¹³ (b) ozone-depleting substances, ¹⁴ (c) polychlorinated biphenyls ¹⁵ and other hazardous chemicals, ¹⁶ (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, ¹⁷ and (e) transboundary trade in waste or waste products; ¹⁸
- (iii) production of or trade in weapons and munitions, including paramilitary materials;
- (iv) production of or trade in alcoholic beverages, excluding beer and wine; 19
- (v) production of or trade in tobacco; 10
- (vi) gambling, casinos, and equivalent enterprises; 10
- (vii) production of or trade in radioactive materials, ²⁰ including nuclear reactors and components thereof:
- (viii) production of, trade in, or use of unbonded asbestos fibers;²¹
- (ix) commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests;
- (x) marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

¹⁰ Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

¹¹ Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).

¹² A list of pharmaceutical products subject to phaseouts or bans is available at http://www.who.int.

¹³ A list of pesticides and herbicides subject to phaseouts or bans is available at http://www.pic.int.

¹⁴ A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at http://www.unep.org/ozone/montreal.shtml.

¹⁵ A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.

¹⁶ A list of hazardous chemicals is available at http://www.pic.int.

¹⁷ A list is available at http://www.cites.org.

¹⁸ As defined by the Basel Convention; see http://www.basel.int.

¹⁹ This does not apply to project sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a project sponsor's primary operations.

²⁰ This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.

²¹ This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

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Appendix V: Initial Environmental Examination (IEE)

PEPA - Projects requiring an IEE

A. Agriculture, Livestock and Fisheries

- 1. Poultry, livestock, stud and fish farms
- 2. Projects involving packaging, formulation, cold storage and warehouse of agricultural products.

B. Energy

- 1. Hydroelectric power generation less than 50 MW
- 2. Thermal power generation less than 100 MW
- Coal fired power plants with capacity less than 50 MW
- 4. Transmission lines less than 11 KV, and grid station
- 5. Waste-to-energy generation projects including bio-mass less than 25 MW
- Solar project
- Wind project

C. Oil and Gas projects:

- 1. Oil and gas 2D/3D Seismic survey and drilling activities
- 2. Oil and gas extraction projects including exploration and production located outside the environmentally sensitive areas
- Construction of LPG storage facilities
- Construction of LPG, CNG filling station and petrol pumps

D. Manufacturing and processing

- 1. Ceramics and glass units less than 500 million
- 2. Food processing industries with total cost less than Rs. 200 million
- Pharmaceutical units.
- 4. Marble units
- 5. Carpet manufacturing units
- 6. Rice mills, ghee/oil mills,
- 7. Brick kilns
- 8. Stone crushing units
- 9. Man-made fibers and resin projects with total cost less than Rs. 200 million

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- Manufacturing of apparel, textile garments unit, including dyeing, bleaching and printing, with total cost less than Rs.50 million
- 11. Wood products with total cost more than Rs.100 million
- 12. Steel re-rolling mills
- Recycling plants

E. Mining and mineral processing

- Commercial extraction of sand, gravel, limestone, clay, sulphur and other minerals not included in Schedule II with total cost less than Rs.100 million
- 2. Crushing, grinding and separation processes
- 3. Smelting plants with total cost less than Rs100 millions

F. Transport

1. Flyovers, underpasses and bridges having total length less than 500 meters

G. Water management, dams, irrigation and flood protection

- 1. Dams and reservoirs with storage volume less than 25 million cubic meters of surface area less than 4 square kilometers
- Small-scale irrigation systems and drainage system with total cost less than Rs. 100 million

H. Water supply and filtration

1. Water supply schemes and filtration plants with total cost less **than 100 million** (Including projects of maintenance, up gradation, reconstruction of existing projects.)

I. Waste disposal and treatment

- 1. Solid and non-hazardous waste with annual capacity less than 10,000 tons
- 2. Waste water treatment for sewage treatment facility with total cost less than **200 million**
- 3. Industry specific Waste water treatment facility for Industrial effluent (small scale plant)

J. Urban development

- 1. Housing schemes less than 10 acres
- 2. Multi-story buildings having residential and commercial setup on the total plot size is less than 2000 sq. yards
- Hospitals with capacity of 50 beds, health care unit/laboratories with 500 OPD/day.
- 4. Construction of Educational, Academic institutions on land less than 10 acres.

K. Other projects

1. Any other project for which filing of an IEE is required by the Agency under sub-regulation (2) of Regulation.

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Appendix VI: Projects Requiring an Environmental Impact Assessment

PEPA - Projects requiring an Environment Impact Assessment

A. Energy

- 1. Hydroelectric power generation over 50 MW
- 2. Thermal power generation over 100MW
- Coal power projects above 50 MW
- 4. Transmission lines (11 KV and above) and distribution projects.
- 5. Nuclear power plants
- 6. Wind energy projects if falls under any sensitive, protected area.

B. Oil and Gas projects

- 1. Petroleum refineries.
- LPG and LNG Projects (including LNG Terminals, re-gasification units) except LPG filling stations
- 3. Oil and gas transmission systems
- 4. Oil and gas gathering system, separation and storage.

C. Manufacturing and processing

- 1. Cement plants
- 2. Chemical manufacturing industries
- 3. Fertilizer plants
- Steel Mills
- 5. Sugar Mills and Distilleries
- 6. Food processing industries including beverages, dairy milk and products, slaughter houses and related activities with total cost more than Rs. 200 Million
- 7. Industrial estates (including export processing zones)
- 8. Man-made fibers and resin projects with total cost of Rs 200M and above
- 9. Pesticides (manufacture or formulation)
- 10. Petrochemicals complex
- 11. Synthetic resins, plastics and man-made fibers, paper and paperboard, paper pulping, plastic products, textiles (except apparel), printing and publishing, paints and dyes, oils and fats and vegetable ghee projects, with total cost more than Rs. 10 million
- 12. Tanning and leather finishing projects

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13. Battery manufacturing plant

D. Mining and mineral processing

- 1. Mining and processing of coal, gold, copper, sulphur and precious stones
- 2. Mining and processing of major non-ferrous metals, iron and steel rolling
- 3. Smelting plants with total cost of Rs. 100 million and above

E. Transport

- 1. Airports
- 2. Federal or Provincial highways or major roads (including rehabilitation or rebuilding or reconstruction of existing roads)
- 3. Ports and harbor development
- 4. Railway works
- 5. Flyovers, underpasses and bridges having total length of more than 500m

F. Water management, dams, irrigation and flood protection

- 1. Dams and reservoirs with storage volume of 25 million cubic meters and above having surface area of 4 square kilometers and above
- 2. Irrigation and drainage projects serving 15,000 hectares and above
- 3. Flood Protection

G. Water supply and filtration

1. Large Water supply schemes and filtration plants.

H. Waste Disposal and treatment

- 1. Handling, storage or disposal of hazardous or toxic wastes or radioactive waste (including landfill sites, incineration of hospital toxic waste)
- 2. Waste disposal facilities for municipal or industrial wastes, with total annual capacity of 10,000 tons and above.
- 3. Waste water treatment facility for industrial or municipal effluents.

I. Urban development and tourism

- 1. Housing schemes above 10 acres
- 2. Residential/commercial high rise buildings/apartments from15 stories and above.
- 3. Land use studies and urban plans (large cities)
- 4. Large scale public facilities.
- 5. Large-scale tourism development projects

J. Environmentally Sensitive Areas

1. All projects situated in environmentally sensitive areas

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K. Other projects

- Any other project for which filing of an EIA is required by the Agency under sub-regulation
 (2) of Regulation 5.
- 2. Any other project likely to cause an adverse environmental effect.

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Appendix VII: Pakistan Environmental Protection Agency (IEE and EIA) Regulations

- 1. This describes the Pakistan Environmental Protection Agency (IEE and EIA) Regulations. Since the 18th amendment in the Constitution of Pakistan, the subject of 'environment protection' has been given to the Provinces. Each of the four provinces has developed their regulations to assess the development projects which may have environmental impacts.
- 2. The Punjab EPA [2012] have stated schedules I and II categorizing the proposed projects requiring Initial Environmental Examination [IEE] and/or Environmental Impact Assessment [EIA].
- 3. The Sindh EPA [2014] have stated schedules I, II and III categorizing the proposed projects requiring Checklist, Initial Environmental Examination [IEE] and/or Environmental Impact Assessment [EIA].
- 4. The Khyber Pakhtunkhwa EPA 2014, has stated Strategic Environmental Assessment [Section 12] and Initial Environmental Examination [IEE] and Environmental Impact Assessment [EIA] [Section 13] to list the requirements of proposed project.
- The Baluchistan EPA 2012, has stated Strategic Environmental Assessment [Section 13] and Initial Environmental Examination [IEE] and Environmental Impact Assessment [EIA] [Section 15] to list the requirements of proposed project.

Punjab Environmental Protection Act Regulations 2000, Schedule I & II77

SCHEDULE I SCHEDULE II [EIA] [IEE] A. Agriculture, Livestock and Fisheries A. Energy Poultry, livestock, stud and 1. Hydroelectric power generation over fish farms with total cost more 50 MW than Rs.10million 2. Thermal power generation over 200 2. Projects involving repacking, formulation or 3. Transmission lines (11 KV and warehousing of agricultural above) and grid stations 4. Nuclear power plans products 5. Petroleum refineries B. Energy B. Manufacturing and processing 1. Hydroelectric power generation 1. Cement plants less than 50 MW 2. Chemicals projects 2. Thermal power generation less 3. Fertilizer plants than 200 KW 4. Food processing industries including 3. Transmission lines less than 11 sugar mills, beverages, milk and dairy KV, and large distribution projects products, with total cost of 4. Oil and gas transmission systems Rs.100 million and above

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- Oil and gas extraction projects including exploration, production, gathering systems, separation and storage
- 6. Waste-to-energy generation projects
- 5. Industrial estates (including export processing zones)
- 6. Man-made fibers and resin projects with total cost of Rs.100 M and above
- 7. Pesticides (manufacture or formulation)
- 8. Petrochemicals complex
- Synthetic resins, plastics and manmade fibers, paper and paperboard, paper pulping, plastic products, textiles (except apparel),printing and publishing, paints and dyes, oils and fats and vegetable ghee projects, with total cost more than Rs.10 million
- 10. Tanning and leather finishing projects

C. Manufacturing and processing

- 1. Ceramics and glass units with total cost more than Rs.50 million
- Food processing industries including sugar mills, beverages, milk and dairy products, with total cost less than Rs.100 million
- 3. Man-made fibers and resin projects with total cost less than Rs.100 million
- 4. Manufacturing of apparel, including dyeing and printing, with total cost more than Rs.25 million
- 5. Wood products with total cost more than Rs.25 million

C. Mining and mineral processing

- 1. Mining and processing of coal, gold, copper, sulphur and precious stones
- Mining and processing of major nonferrous metals, iron and steel rolling
- 3. Smelting plants with total cost of Rs.50 million and above

D. Mining and mineral processing

- Commercial extraction of sand, gravel, limestone, clay, sulphur and other minerals not included in Schedule II with total cost less than Rs.100 million
- 2. Crushing, grinding and separation processes
- 3. Smelting plants with total cost less than Rs.50 million

D. Transport

- 1. Airports
- Federal or Provincial highways or major roads (except maintenance, rebuilding or reconstruction of existing roads) with total cost of Rs.50 million and above
- 3. Ports and harbor development for ships of 500 gross tons and above
- 4. Railway works

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F. Tourness of Long Surface Con-				
E. Transport 1. Federal or Provincial highways	 E. Water management, dams, irrigation and flood protection 1. Dams and reservoirs with storage volume of 50 million cubic meters and above or surface area of 8 square kilometers and above 2. Irrigation and drainage projects serving 15,000 hectares and above 			
F. Water management, dams, irrigation	F. Water supply and treatment			
and flood protection				
 Dams and reservoirs with storage volume less than 50 million cubic meters of surface area less than 8 square kilometers Irrigation and drainage projects serving less than 15,000 hectares Small-scale irrigation systems with total cost less than Rs.50 million 	Water supply schemes and treatment plants with total cost of Rs.25 million and above			
G. Water supply and treatment	G. Waste Disposal			
Water supply schemes and treatment plants with total cost less than Rs.25 million	 Waste disposal and/or storage of hazardous or toxic wastes (including landfill sites, incineration of hospital toxic waste) Waste disposal facilities for domestic or industrial wastes, with annual capacity more than 10,000 cubic meters 			
H. Waste disposal 1. Waste disposal facility for domestic or industrial wastes, with annual capacity less than 10,000 cubic meters	 H. Urban development and tourism 1. Land use studies and urban plans (large cities) 2. Large-scale tourism development projects with total cost more than Rs.50 million 			
I. Urban development and tourism	I. Environmentally Sensitive Areas			
 Housing schemes Public facilities with significant off- site impacts (e.g. hospital wastes) Urban development projects 	All projects situated in environmentally sensitive areas			
J. Other projects	J. Other projects			
Any other project for which filing of an IEE is required by the Federal Agency under subregulation (2) of Regulation 5	 Any other project for which filing of an EIA is required by the Federal Agency under sub-regulation (2) of Regulation 5. Any other project likely to cause an adverse environmental effect 			

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Sindh Environmental Protection Act Regulations 2000, Schedule I, II & $\rm III^{22}$

SC	HEDULE I [IEE]	SCHEDULE II [EIA]	SCHEDULE III [CHECKLIST]
A.	Agriculture, Livestock and Fisheries 1. Poultry, livestock, stud and fish farms 2. 2. Projects involving packaging, formulation, cold storage and warehouse of agricultural products.	A. Energy 1. Hydroelectric power generation over 50 MW 2. Thermal power generation over 100 MW 3. Coal power projects above 50 MW 4. Transmission lines (11 KV and above)	a) Construction of, offices and small commercial buildings (1-6 story),home industrial units, ware houses, marriage / banquet facilities, large scale motor vehicles workshops, restaurants / food outlets, large baking unit subject to
		 and distribution projects. 5. Nuclear power plants 6. 6. Wind energy projects if falls under any sensitive, protected area. 	the compliance with existing zoning laws. b) b. Reconstruction / rehabilitation of roads (small roads in urban area and farm to market roads more than 2 km).
B.	 Energy Hydroelectric power generation less than 50 MW Thermal power generation less than 100MW Coal fired power plants with capacity less than 50 MW Transmission lines less than 11 KV, and grid station Waste-to-energy generation projects including bio-mass less than 25 MW Solar project Wind project 	 B. Oil and Gas Projects Petroleum refineries. LPG and LNG Projects(including LNG Terminals, regasification units) except LPG filling stations Oil and gas transmission systems Oil and gas gathering system, separation and storage. 	 c) On-farm dams and fish farms. d) Pulses mills. e) Flour Mills f) Projects promoting energy efficiency (small scale). g) Lining of existing minor canals and /or water courses. h) Canal cleaning i) Forest harvesting operations j) Rain harvesting projects k) Rural schools (Secondary and Higher Secondary) and rural and basic health units having at least ten beds capacity.
C.	Oil and Gas Projects 1. Oil and gas 2D/3D Seismic survey and drilling activities	C. Manufacturing and Processing 1. Cement plants 2. Chemical	BTS Towers Dime Kilns Ice factories and cold storage.

²² Source: SEPA Review of IEE & EIA Regulations, 2014

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- Oil and gas
 extraction projects
 including exploration
 and production
 located outside the
 environmentally
 sensitive areas
- 3. Construction of LPG storage facilities
- 4. Construction of LPG,CNG filling station and petrol pumps

- manufacturing industries
- 3. Fertilizer plants
- 4. Steel Mills
- 5. Sugar Mills and Distilleries
- Food processing industries including beverages, dairy milk and products, slaughter houses and related activities with total cost more than Rs. 200 Million
- 7. Industrial estates (including export processing zones)
- Man-made fibers and resin projects with total cost of Rs 200 M and above
- 9. Pesticides (manufacture or formulation)
- 10. Petrochemicals complex
- 11. Synthetic resins, plastics and manmade fibers, paper and paperboard, paper pulping, plastic products, textiles (except apparel),printing and publishing, paints and dyes, oils and fats and vegetable ghee projects, with total cost more than Rs. 10 million
- 12. Tanning and leather finishing projects
- 13. Battery manufacturing plant

-) Cotton oil mill
- Warehouses for pesticides and pharmaceuticals

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 D. Manufacturing and Processing 1. Ceramics and glass units less than 500 million 2. Food processing industries with total cost less than Rs. 200 millions 	D. Mining and Mineral Processing 1. Mining and processing of coal, gold, copper, sulfur and precious stones 2. Mining and processing of major non-ferrous metals, iron and steel rolling 3. Smelting plants (total cost of Rs. 100 M and above)	
	 Transport Airports Federal or Provincial highways or major roads (including rehabilitation or rebuilding or reconstruction of existing roads) Ports and harbor development Railway works Flyovers, underpasses and bridges having total length of more than 500 m 	
	F. Water Management, Dams, Irrigation and Flood Protection	
	 Dams and reservoirs with storage volume of 25 million cubic meters and above having surface area of 4 square kilometers and above Irrigation and drainage projects serving 15,000 hectares and above Flood Protection 	

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G. Water Supply and Filtration
1. Large Water supply
schemes and filtration
plants.

The Khyber Pakhtunkhwa Environmental Protection Act, 201423

1. Strategic environmental assessment:

- 1. Government may ask to carry out strategic environmental assessment, of all or any of the plan or policy given below:
 - Socio-economic development, industrial and agricultural development, urban and rural development;
 - ii. Land use and water use management;
 - iii. The exploitation of natural resources;
 - iv. Economic zones or industrial parks and estates;
 - v. Transport and infrastructure;
 - vi. Solid, municipal and industrial waste;
 - vii. Tourism;
 - viii. Any other plan or policy likely to have an adverse impact on environment;
 - ix. Prevention of water pollution through improper sanitation and control flow of sanitation water into the rivers; and
 - x. Separate zones shall be specified for poultry and cattle farming and slaughtering houses.
- 2. All Government Agencies, Local Councils and Local Authorities and Departments may be asked to conduct and formulate the strategic environmental assessment statement and shall submit it to the Agency which may contain-
 - xi. Objectives, scale and environmental characteristics;
 - xii. Description of the natural, socio-economic and environmental conditions; and
 - xiii. Assessment of possible environmental impact likely to be caused during implementation.
- 3. The Agency shall, within 120 days of the filing of a strategic environmental assessment screening statement, complete in all respects---

²³ The Khyber Pakhtunkhwa Environmental Protection Act, 2014

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- xiv. Circulate the strategic environmental assessment report and conducta public hearing of the strategic environmental assessment report;
- xv. Review any comments received from the circulation and publichearing carried out under clause (i); and
- xvi. Advise the Government Agency, Local Council or Local Authority concerned to include such measures and take such steps, as it deems necessary, to modify the policy or development plan according to environmental objectives and thereafter the policy or development plan shall stand so modified.
- 4. The provisions of sub-sections (1), (2) and (3) shall apply to such categories of plans and policies and in such manner as may be prescribed.
- 5. The Agency shall maintain separate registers for strategic environmental assessment reports, which shall contain brief particulars of each policy and development plan and a summary of decisions taken thereon and which shall be open to inspection for the public at all reasonable hours and the disclosure of information in such registers shall be subject to the provisions of this Act.

2. Initial environmental examination and environmental impact assessment.

- 1. No proponent of a project shall commence construction and operation unless he has filed with the Agency an initial environmental examination or where the project is likely to cause an adverse environmental effect, an environmental impact assessment, and has obtained from the Agency, environmental approval in respect thereof.
- 2. The Agency shall
 - Review the initial environmental examination and accord its approval orrequire submission of an environmental impact assessment by the proponent; or
 - b) Review the environmental impact assessment and accord its approval subject to such conditions as it may deem fit to impose, require that the environmental impact assessment be re-submitted after such modifications as may be stipulated, or reject the project as being contrary to environmental objectives.
- 3. Every review of an environmental impact assessment shall be carried out with public participation and no information will be disclosed during the course of such public participation which relates to
 - a) Trade, manufacturing or business activities, processes or techniques of a proprietary nature, or financial, commercial, scientific or technical

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matters which the proponent has requested should remain confidential, unless for reasons to be recorded in writing, the Director-General of the Agency is of the opinion that the request for confidentiality is not well-founded or the public interest in the disclosure outweighs the possible prejudice to the competitive position of the project or its proponent; or

- International relations, national security or maintenance of law and order, except with the consent of Government; or
- c) Matters covered by legal professional privilege.
- 4. The Agency shall communicate its approval or otherwise within a period of four months from the date of the initial environmental examination or environmental impact assessment is filed complete in all respects in accordance with the prescribed procedure, failing which the initial environmental examination or, as the case may be, the environmental impact assessment shall be deemed to have been approved, to the extent to which it does not contravene the provisions of this Act and the rules, provided that delay is not on part of the proponent for the provision of additional information asked for during the review process or conductance of public hearing of the project.
- 5. Subject to sub-section (4), Government may in a particular case extend the aforementioned period of four months if the nature of the project so warrants.
- 6. The provisions of sub-sections (1), (2), (3), (4) and (5) shall apply to such categories of projects and in such manner as may be prescribed.
- 7. The projects or any activity of a proponent not covered under sub-section (6), specified in guidelines shall obtain a general environmental approval in a manner prescribed in guidelines in respect thereof.
- 8. The Agency shall maintain separate Registers for initial environmental examination and environmental impact assessment projects, which shall contain brief particulars of each project and a summary of decisions taken thereon, and which shall be open to inspection by the public at all reasonable hours and the disclosure of information in such Registers shall be subject to the restrictions specified in sub- section (3).

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The Baluchistan Environmental Protection Act, 2012²⁴

Strategic Environment Assessment (SEA) 13:

- 1. This section regulates the conditions, methods and procedure according to which the assessment of impact of certain plans and programs on the environment (hereinafter referred to as: strategic assessment) shall be carried out in order to provide for the environmental protection and improvement of sustainable development through integration of basic principles of environmental protection into the procedure of preparation and adoption of plans and programs.
- 2. The Government at all levels of administration and in every sector shall incorporate environmental considerations into policies, plans, programs and strategies.

Initial Environmental Examination and Environmental Impact Assessment 15:

- 1. No proponent of a project of public and private sector shall commence construction or operation unless he has filed an Initial Environmental Examination with the Government Agency designated by Baluchistan Environmental Protection Agency, as the case may be, or, where the project is likely to cause an adverse environmental effect an environmental impact assessment, and has obtained from the Government Agency approval in respect thereof.
- 2. The Government Agency shall subject to standards fixed by the Baluchistan Environmental Protection Agency:
 - a. Review the initial environmental examination and accord its approval, or require submission of an environmental impact assessment by the proponent; or review the environmental impact assessment and accord its approval subject to such conditions as it may deem fit to impose, require that the environmental
 - Impact assessment be re-submitted after such modifications as may be stipulated or reject the project as being contrary to environmental objectives.
- 3. Every review of an environmental impact assessment shall be carried out
 - c. with public participation and no information will be disclosed during the course

of such public participation which relates to:

 Trade, manufacturing or business activities, processes or techniques of a proprietary nature, or financial, commercial, scientific ortechnical matters which the proponent has

²⁴ The Balochistan Environmental Protection Act, 2012

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requested should remain confidential, unless for reasons to be recorded in writing, the Director General of the Baluchistan Environmental Protection Agency is of the opinion that the request for confidentiality is not well-founded or the public interest in the disclosure outweighs the possible prejudice to the competitive position of the project or its proponent; or

- ii. International relations, national security or maintenance of law and order, except with the consent of the Government of Baluchistan; or
- iii. Matters covered by legal professional privilege.
- 4. The Government Agency shall communicate its approval or otherwise within a period of four months from the date the initial environmental examination or environmental impact assessment is filed complete in all respects in accordance with the prescribed procedure, failing which the initial environmental examination or, as the case may be, the environmental impact assessment shall be deemed to have been approved, to the extent to which it does not contravene the provisions of this Act and the rules and regulations.
- 5. Subject to sub-section (4) the appropriate Government may in a particular case extend the aforementioned period of four months if the nature of the project so warrants.
- 6. The provisions of sub-sections (1), (2), (3), (4) and (5) shall apply to such categories of projects and in such manner as may be prescribed.
- 7. The Government Agency shall maintain separate registers for initial environmental examination and environmental impact assessment projects, which shall contain brief particulars of each project and a summary of decisions taken thereon, and which shall be open to inspection by the public at all reasonable hours and the disclosure of information in such registers shall be subject to the restrictions specified in sub-section (3).
- 8. No concession areas for any developmental activities shall be awarded to any International/National groups or firms without consultation and concurrence of the Government of Baluchistan/Environmental Protection Agency.
- 9. The prospect licenses for mining, quarrying, crushing etc. shall only be awarded/ granted in compliance with the sub section (1), (2), (3), (4) and (5)
- 10. The cellular companies shall obtain environmental approval from the Baluchistan EPA before installing Base Transceivers Station (BTS).
- 11. BTS Stations should be required to undergo routine evaluation for Compliance. Whenever an application is submitted to the Baluchistan EPA for construction or modification of a transmitting facility. EPA shall have the authority to take action if a cellular base station antenna does not comply with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines and recommendations of the report titled `Environmental and Health Related Effects

- of the Cellular Base Station Antennas' carried out by IT and Telecom Division, Ministry of Information Technology.
- 12. No person or company related to public and private sector shall commence construction or operation unless the concerned building authority accord approval under the provisions of the in vogue Building Code.
- 13. After fulfilling the sub section (12) an action plan shall be submitted to the concerned municipal/town/union council to carry out the activities for a specific time period as to provide the general public or road users an alternative corridor.
- 14. The waste generated during the construction or maintenance or repair of any building shall be appropriately disposed of or transported or collected to a designated place allocated for the purpose like any land fill site to avoid public nuisance.
- 15. The construction or repair activities especially in the main city area shall be carried out in a manner to minimize the road congestion or blockage.
- 16. The proponent of the project shall remit fifty thousand rupees as review fee of an Initial Environmental Examination (IEE) and one hundred thousand as review fee for Environmental Impact Assessment (EIA).
- 17. The person or company in public or private sector intend to commence any scheme or project do not falling under schedule I and II of this Act shall remit twenty-five thousand rupees as an Environmental approval fee to the Baluchistan Environmental Protection Agency.

Appendix VIII: National Environmental Quality Standards

NEQS for Municipal and Liquid Industrial Effluents^{1, 2}

mg/l, unless otherwise defined

			Standards	
No.	Parameter	Into Inland Waters	Into Sewage Treatment ³	Into Sea⁴
1	Temperature increase ⁵	=<3°C	=<3°C	=<3°C
2	pH value	6 to 9	6 to 9	6 to 9
3	Five-day bio-chemical oxygen demand (BOD) ⁵ at 20°C ⁶	80	250	807
4	Chemical oxygen demand (COD)	150	400	400
5	Total suspended solids (TSS)	200	400	200
6	Total dissolved solids (TDS)	3,500	3,500	3,500
7	Grease and oil	10	10	10
8	Phenolic compounds (as phenol)	0.1	0.3	0.3
9	Chlorides (as Cl')	1,000	1,000	SC ⁸
10	Fluorides (as F')	10	10	10
11	Cyanide total (as CN')	1	1	1
12	Anionic detergents (as MBAS)9	20	20	20
13	Sulfates (SO ₄)	600	1,000	SC ⁸
14	Sulfides (s')	1	1	1
15	Ammonia (NH ₃)	40	40	40
16	Pesticides ¹⁰	0.15	0.15	0.15

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17	Cadmium ¹¹	0.1	0.1	0.1
18	Chromium (trivalent and hexavalent)	1	1	1
19	Copper ⁴	1	1	1
20	Lead ⁴	0.5	0.5	0.5
21	Mercury ⁴	0.01	0.01	0.01
22	Selenium ⁴	0.5	0.5	0.5
23	Nickel ⁴	1	1	1
24	Silver ⁴	1	1	1
25	Total toxic metals	2	2	2
26	Zinc	5	5	5
27	Arsenic ⁴	1	1	1
28	Barium ⁴	1.5	1.5	1.5
29	Iron	8	8	8
30	Manganese	1.5	1.5	1.5
31	Boron ⁴	6	6	6
32	Chlorine	1	1	1

Explanations:

- 1. Dilution of liquid effluents to bring them to the NEQS limiting values is not permissible through fresh water mixing with the effluent before discharging into the environment.
- 2. The concentration of pollutants in water being used will be subtracted from the effluent for calculating the NEQS limits.
- 3. Applicable only when and where sewage treatment is operational and BOD = 80 mg/l is achieved by the sewage treatment system.
- 4. Provided discharge is not at shore and not within 10 miles of mangrove or other important estuaries.

- 5. The effluent should not result in temperature increase of more than 3°C at the edge of the zone where initial mixing and dilution take place in the receiving body. In case zone is not define, use 100 m from the point of discharge
- 6. Assuming minimum dilution 1:10 discharge, lower ratio would attract progressively stringent standards to be determined by the Federal Environmental Protection Agency. By 1:10 dilution means, for example that for each one cubic meter of treated effluent, the recipient water body should have 10 cubic meter of water for dilution of this effluent.
- 7. The value for industry is 200 mg/l
- 8. Discharge concentration at or below sea concentration (SC)
- 9. Modified Benzene Alkyl Sulfate assuming surfacetant as biodegradable.
- 10. Pesticides include herbicides, fungicides, and insecticides
- 11. Subject to total toxic metals discharge should not exceed level given at S. No. 25

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Drinking Water Standards

Properties/Parameters	Standard Value			
Bacterial				
All water intended for drinking (e.Coli or Thermotolerant Coliform bacteria)	Must not be detectable in any 100 ml sample			
Treated water entering distribution system (E.Coli or thermo tolerant coliform and total coliform bacteria)	Must not be detectable in any 100 ml sample			
Treated water in the distribution system (E.coli or thermo tolerant coliform and total coliform bacteria)	Must not be detectable in any 100 ml sample In case of large supplies, where sufficient samples are examined, must not be present in 95% of the samples taken throughout any 12-month period.			
Phys	sical			
Colour	≤ 15 <i>TCU</i>			
Taste	Non objectionable/Acceptable			
Odour	Non objectionable/Acceptable			
Turbidity	<5NTU			
Total Hardness as CaCO₃	<500mg/l			
TDS	<1000			
рН	6.5 – 8.5			
Cher	mical			
Essential Inorganic				
Aluminium (AI) mg/I	≤ 0.02			
Antimony (Sb)	≤ 0.005			
Arsenic (As)	≤ 0.05			
Barium (Ba)	0.7			

Boron (B)	0.3
Cadmium (Cd)	0.01
Chloride (CI)	<250
Chromium (Cr)	≤ 0.05
Copper (Cu)	2
Toxic Inorganic	
Cyanide (CN)	≤ 0.05
Fluoride (F)	≤ 1.5
Lead (Pb)	≤ 0.05
Manganese (Mn)	≤ 0.5
Mercury (Hg)	≤0.001
Nickel (Ni)	≤ 0.02
Nitrate (NO ₃)	≤50
Nitrite (NO2)	≤3 (P)
Selenium (Se)	0.01 (P)
Residual Chlorine	0.2-0.5 at consumer end 0.5-1.5 at source
Zinc (Zn)	5.0
Organic	
Pesticides mg/L	PSQCA No. 4639- 2004, Page No. 4 Table No. 3 Serial No. 20- 58 may be consulted.**
Phenolic compounds (as Phenols) mg/L	Less or equal 0.002**
Polynuclear aromatic hydrocarbons (as PAH) g/L	0.01 (By GC/MS method)**
Radioactive	

Alpha Emitters bq/L or pCi	0.1
Beta emitters	1

^{*} indicates priority health related inorganic constituents which need regular monitoring

^{**} Pakistan Standards Quality Control Authority

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National Environmental Quality Standards for Gaseous Emissions

No.	Parameter	Source of Emission	Standards
1	Smoke	Smoke opacity not to exceed	40% or 2 on Ringlemann Scale or equivalent smoke number
2	Particulate matter ¹	(a) Boilers and furnaces:	
		i) Oil-fired	300
		ii) Coal-fired	500
		iii) Cement kilns	300
		(b) Grinding, crushing, clinker coolers and related processes, metallurgical processes, converters, blast furnaces and cupolas	500
3	Hydrogen chloride	Any	400
4	Chlorine	Any	150
5	Hydrogen fluoride	Any	150
6	Hydrogen sulfide	Any	10
7	Sulfur oxides ^{2, 3}	Sulfuric acid/sulfonic acid plants	5,000
		Other plants except power plants operating on oil and coal	1,700
8	Carbon monoxide	Any	800
9	Lead	Any	50
10	Mercury	Any	10
11	Cadmium	Any	20

12	Arsenic	Any	20
13	Copper	Any	50
14	Antimony	Any	20
15	Zinc	Any	200
16	Oxides of nitrogen ³	Nitric acid manufacturing unit	3,000
		Gas-fired	400
		Oil-fired	600
		Coal-fired	1,200

- 1. Based on the assumption that the size of the particulate is 10 micron or more.
- 2. Based on 1 per cent sulfur content in fuel oil. Higher content of sulfur will cause standards to be pro-rated.
- 3. In respect of emissions of sulfur dioxide and nitrogen oxides, the power plants operating on oil and coal as fuel shall in addition to National Environmental Quality Standards (NEQS) special above, comply with the following standards

Pakistan Standards for Sulfur Dioxide and Nitrogen Oxides for Power Plants Operating on Oil and Coal

A. Sulfur Dioxide

Sulfur Dioxide Background Levels				Standards	
(mg/m³)	(mg/m³)			Criterion II	
Background				Max. Allowable	
Air Quality (SO ₂ basis)	Annual Average	Maximum 24- Hour Interval Max. SO ₂ Emissions (TPD)		1-Year Average Ground Level Increment to Ambient (mg/m³)	
Unpolluted	< 50	< 200	500	50	
Moderately pollu	Moderately polluted ¹				
Low	50	200	500	50	
High	100	400	100	10	
Very polluted ²	> 100	> 400	100	10	

- 1. For intermediate values between 50 and 100 µg/m3 linear interpretation should be used.
- 2. No project with sulfur dioxide emissions will be recommended.

B. Nitrogen Oxides

Annual arithmetic mean of ambient air concentrations of nitrogen oxides (expressed as NO ₂) should not exceed	100 μg/m³ (0.05 ppm)
Maximum emission levels for stationary source discharatmosphere: For fuel fired steam generators	arges, before mixing with the
Liquid fossil fuel	130 ng/J of heat input
Solid fossil fuel	300 ng/J of heat input
Lignite fossil fuel	260 ng/J of heat input

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National Environmental Quality Standards for Motor Vehicle Exhaust and Noise

No.	Parameter	Standards (Maximum Permissible Limit)		Measuring Method
1	Smoke	40% or 2 on the Ringelmann Scale during engine acceleration mode.		To compared with Ringlemann chart at a distance of 6 meters or more.
2	Carbon	Emission Standards: New Vehicles Used Vehicles		
	Monoxide			
		4 .5%	6%	Under idling conditions: Nondispersive infrared detection through gas analyzer.
3	Noise	85 db (A)		Sound-meter at 7.5 meters from the source.

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National Environmental Quality Standards for Ambient Air

		Concentration in Ambient Air			
Pollutants	Time-weighted Average	Effective from 1st July 2010	Effective from 1st January 2013	Method of Measurement	
Sulpher	Annual Average*	80 μg/m³	80 μg/m³	-Ultra Violet	
Dioxide (SO ₂)	24 hours**	120 µg/m³	120 μg/m ³	Fluorescence method	
Oxide of	Annual Average*	40 μg/m ³	40 μg/m³	Gas Phase	
Nitrogen as (NO)	24 hours**	40 μg/m³	40 μg/m³	Chemiluminescence	
Oxide of	Annual Average*	40 μg/m³	40 μg/m³	-Gas Phase	
Nitrogen as (NO ₂)	24 hours**	40 μg/m³	80 µg/m³	Chemiluminescence	
О3	1 hour	180 μg/m³	130 μg/m³	-Non dispersive UV absorption method	
Suspended	Annual Average*	400 μg/m³	360 µg/m³	-High Volume	
Particulate Matter (SPM)	24 hours**	550 μg/m³	500 μg/m³	Sampling, (Average flow rate not less than 1.1 m³/min)	
Respirable	Annual Average*	200 μg/m³	120 μg/m ³	-β Ray Absorption	
particulate Matter. PM ₁	24 hours**	250 μg/m³	150 μg/m ³	method	
Respirable	Annual Average*	25 μg/m³	15 µg/m³		
Particulate Matter. PM	24 hours**	40 μg/m ³	35 μg/m³	-β Ray Absorption method	
2.5	1 hour	25 μg/m³	15 μg/m³		
Lead (Pb)	Annual Average*	1.5 µg/m³	1 μg/m³	-ASS Method after sampling using EPM	
Leau (FD)	24 hours**	2 μg/m³	1.5 μg/m ³	2000 or equivalent Filter paper	

Carbon	8 hours**	5 mg/m³	5 mg/m³	-Non Dispersive Infra
Monoxide (CO)	1 hour	10 mg/m ³	10 mg/m ³	Red (NDIR) method

^{*} Annual arithmetic means of minimum 104 instruments in a year taken twice a week 24 hourly at uniform interval

^{** 24} hourly /8 hourly values should be met 98% of the in a year. 2% of the time, it may exceed but not on two consecutive days

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National Environmental Quality Standards For Motor Vehicle Exhaust And Noise

i. For in-use Vehicles

Sr. No.	Parameter	Standards (maximum permissible limit)	Measuring method	Applicability
1	2	3	4	5
1	Smoke	40% or 2 on the Ringlemann Scale during engine acceleration mode.	To be compared with Ringlemann Chart at a distance of 6 meters or more.	Immediate effect
2	Carbon Monoxide.	6%	Under idling conditions: non- dispersive, infrared detection through gas Analyzer	
3	Noise	85 db' (A).	Sound-meter al 7.5 meters from' the source	

ii. For new Vehicles

Emission Standards For Diesel Vehicles

(a). For Passenger Cars and Light Commercial Vehicles (g/km)

Type of Vehicle	Category/Class	Tiers	СО	HC+ NOx	РМ	Measuring Method	Applicability
1	2	3	4	5	6	7	8
Passenger Cars.	M 1: with reference mass (RW) up to 2500 kg. Cars with RW over	Pak-II. IDI	1	0.7	0.08:	NEDC (ECE 15+ EUDCL)	i-All imported and local manufactured diesel vehicles with
	2500 kg. to meet; NI category standards	Pak-II DI	1	0.9	0.10		effect from 01-07-2012
Light Commercial Vehicles	NI-I (RW<1250 kg).	Pak-II, IDI	1.00	0.70	0.08		

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	Pak-II, DI	1.00	0.90	0.10
NI-II (1250 kg <	Pak-II IDI	1.25	1.00	0.12
RW <1700 kg)	Pak II, DI	1.25	1.30	0.14
NI-III (RW >1700 kg)	Pak II. IDI	1.50	1.20	0.17
21700 kg)	Pak-II DI,	1.50	1.60	0.20

Parameter Standards (maximum permissible limit) Measuring method

Noise	85 db (A)	Sound - meter at 7.5 meters from the source.
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{b} For Heavy Duty Diesel Engines and Large Goods Vehicles (g/Kwh)

Type of Vehicle	Category/C lass	Tiers	СО	НС	NOx	РМ	Measuring Method	Applicability
1	2	3	4	5	6	7	8	9
Heavy Duty Diesel Engines	Truck and Buses	Pak-II.	4.0	1.1	7.0	0.15	ECE-R-49	All imported and local manufactured diesel vehicles with effect from 01-07-2012
Large goods Vehicles	N2 (2000 and up)	Pak-II,	4.00	7.0	1.10	0.15	EDC	

Parameter Standards (maximum permissible limit) Measuring method

Noise 85 db (A)	Sound - meter at 7.5 meters from the source.
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Emission Standards for Petrol Vehicles (g/km)

Type of Vehicle	Category/Class	Tiers	СО	HC+ NOx	Measuring Method	Applicability
1	2	3	4	5	7	8
Passenger Cars.	M 1: with reference mass (RW) up to 2500 kg. Cars with RW over 2500 kg. to meet NI category standards	Pak-II.	2.20	0.5	NEDC (ECE 15+ EUDCL)	All imported and new models locally manufactured petrol vehicles with effect from 1st July, 2009**
Light Commercial Vehicles	NI-I (RW<1250 kg).	Pak-II,	2.20	0.5		
	NI-II (1250 kg>RW<1700 kg)	Pak-II	4.0	0.65		
	NI-III (RW >1700 kg)	Pak II.	5.0	0.08		
Motor	2.4 strokes < 150 cc	Pak-II	5.5	1.5		
Rickshaws and Motor Cycles	2.4 strokes > 150 cc	Pak-II	5.5	1.3	ECER 40	

Parameter Standards (maximum permissible limit) Measuring method

Noise	85 db (A)	Sound - meter at 7.5 meters from the
		source.

Explanations:

DI: Direct Injection
IDI: Indirect Injection

EUDCL: Extra Urban Driving Cycle
NEDC: New European Driving Cycle

ECE: Urban Driving Cycle

M: Vehicles Designed and constructed for the carriage of passengers and comprising no

more than eight seats in addition to the driver seat

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N: Motor vehicles with at least four wheels designed and constructed for the carriage of good

*New model means both model and engine type change

**The Existing models of petrol driven vehicles locally manufactured will immediately switchover to Pak-II emission standards but not later than 30th June, 2012.

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Appendix IX: Rapid Environmental Assessment (REA) Checklists

Appendix II contains Rapid Environmental Assessment (REA) Checklists for different project types. Please complete the appropriate form for each project.

Appendix IV.A: REA Checklist for Urban Development Projects

Appendix IV.B: REA Checklist for Wind Energy Projects Appendix IV.C: REA Checklist for Solar Energy Projects Appendix IV.D: REA Checklist for Building Projects

Appendix IV.E: REA Checklist for Solid Waste Management Projects

Appendix IV.F: REA Checklist for Agro-Industrial Projects Appendix IV.G: REA Checklist for Irrigation Projects Appendix IV.G: REA Checklist – General Projects

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Appendix IX.A: REA Checklist for Urban Development Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area			
■ Densely populated?			
Heavy with development activities?			
Adjacent to or within any environmentally sensitive areas?			
Cultural heritage site			
Protected Area			
Wetland			
Mangrove			
Estuarine			
Buffer zone of protected area			
Special area for protecting biodiversity			_
• Bay			
B. Potential Environmental Impacts Will the Project cause			
 Impacts on the sustainability of associated sanitation and solid waste disposal systems and their interactions with other urban services. 			
Deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?			

Screening Questions	Yes	No	Remarks
Degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?			
Dislocation or involuntary resettlement of people?			
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable group?			
Degradation of cultural property, and loss of cultural heritage and tourism revenues?			
 Occupation of low-lying lands, floodplains and steep hillsides by squatters and low-income groups, and their exposure to increased health hazards and risks due to pollutive industries? 			
Water resource problems (e.g. depletion/degradation of available water supply, deterioration for surface and ground water quality, and pollution of receiving waters?			
Air pollution due to urban emissions?			
Risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project construction and operation?			
Road blocking and temporary flooding due to land excavation during rainy season?			
Noise and dust from construction activities?			
Traffic disturbances due to construction material transport and wastes?			
Temporary silt runoff due to construction?			
Hazards to public health due to ambient, household and occupational pollution, thermal inversion, and smog formation?			

Screening Questions	Yes	No	Remarks
Water depletion and/or degradation?			
Overpaying of ground water, leading to land subsidence, lowered ground water table, and Stalinization?			
 Contamination of surface and ground waters due to improper waste disposal? 			
Pollution of receiving waters resulting in amenity losses, fisheries and marine resource depletion, and health problems?			
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 if workers from other regions or countries are hired?			
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 operation and construction?			
Community safety risks due to both accidental and natural hazards, 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?			

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Appendix IX.B: REA Checklist for Wind Energy Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

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			
Offshore (marine)			
Buffer zone of protected area			
Special area for protecting biodiversity			
B. Potential Environmental Impacts Will the Project cause			
Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands or sensitive or protected areas) or species of conservation significance?			
Encroachment on historical/cultural monuments or areas?			
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
Risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project construction and operation?			
Noise and vibration due to blasting and other civil works?			
An increase in local traffic during construction?			
Decrease in value of land in the area due to noise, the degradation of environmental aesthetics or other nuisances?			
Short-term ecological disturbances such as soil erosion, water quality deterioration (surface and groundwater), air pollution, noise and vibrations from construction equipment?			
 Alteration of surface water flows by towers, roads or other facilities, resulting in erosion and stream sedimentation? 			
Disturbance of sensitive marine ecosystems from the installation of offshore towers and submarine cables?			
a threat to bird or bat life from turbine and tower collision (particularly waterbirds)?			
Noise disturbance during operation due to the proximity of settlements or other features?			
Disruption of radar or telecommunications from electromagnetic interference?			
Aviation or navigation hazard from turbines?			
Hazards to traffic on major roads near the wind farm due to the location of turbines causing driver distraction?			
Facilitation of access to protected areas by roads or the transmission line corridor?			
Shadow flicker in nearby settlements or at other important local sites?			

Screening Questions	Yes	No	Remarks
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 if workers from other regions or countries are hired? 			
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?			
Community safety risks due to both accidental and natural hazards, 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?			

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Appendix IX.C: REA Checklist for Solar Energy Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

Screening Questions	Yes	No	Remarks
A. Project Siting 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. Potential Environmental Impacts Will the Project cause			
Large scale land disturbance and land use impacts especially 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?			
Noise, vibration and dust from construction activities?			
An increase in local traffic during construction?			

Screening Questions	Yes	No	Remarks
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 decommission?			

Screening Questions	Yes	No	Remarks
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?			
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?			

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Appendix IX.D: REA Checklist for Building Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following areas:			
 Underground utilities 			
Cultural heritage site			
Protected Area			
 Wetland 			
 Mangrove 			
Estuarine			
Buffer zone of protected area			
 Special area for protecting biodiversity 			
■ Bay			
B. Potential Environmental Impacts Will the Project cause			
Encroachment on historical/cultural areas?			
Encroachment on precious ecology (e.g. sensitive or protected areas)?			
Impacts on the sustainability of associated sanitation and solid waste disposal systems?			
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
Accident risks associated with increased vehicular traffic, leading to loss of life?			
• Increased noise and air pollution resulting from increased traffic volume?			
Occupational and community health and safety risks?			
Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
Generation of dust in sensitive areas during construction?			
Requirements for disposal of fill, excavation, and/or spoil materials?			
Noise and vibration due to blasting and other civil works?			
Long-term impacts on groundwater flows as result of needing to drain the project site prior to construction?			
Long-term impacts on local hydrology as a result of building hard surfaces in or near the building?			
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 if workers from other regions or countries are hired?			
Risks to community safety caused by fire, electric shock, or failure of the buildings safety features during operation?			
Risks to community health and safety caused by management and disposal of waste?			
Community safety risks due to both accidental and natural hazards, 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?			

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Appendix IX.E: REA Checklist for Solid Waste Management Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area			
Densely populated?			
Heavy with development activities?			
Adjacent to or within any environmentally sensitive areas?			
Cultural heritage site		_	_
Protected Area			
Wetland			
Mangrove			
Estuarine			
Buffer zone of protected area			
Special area for protecting biodiversity			
• Bay			
B. Potential Environmental Impacts Will the Project cause			
 Impacts associated with transport of wastes to the disposal site or treatment facility 	_	_	
Impairment of historical/cultural monuments/areas and loss/damage to these sites?			
Degradation of aesthetic and property value loss?			
• Nuisance to neighboring areas due to foul odor and influx of insects, rodents, etc.?			
■ Dislocation or involuntary resettlement of people?			

Screening Questions	Yes	No	Remarks
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
Risks and vulnerabilities related occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
Public health hazards from odor, smoke from fire, and diseases transmitted by flies, insects, birds and rats?			
 Deterioration of water quality as a result of contamination of receiving waters by leacheate from land disposal system? 			
Contamination of ground and/or surface water by leach ate from land disposal system?			
■ Land use conflicts?			
Pollution of surface and ground water from leach ate coming form sanitary landfill sites or methane gas produced from decomposition of solid wastes in the absence of air, which could enter the aquifer or escape through soil fissures at places far from the landfill site?			
• Inadequate buffer zone around landfill site to alleviate nuisances?			
 Road blocking and/or increased traffic during construction of facilities? 			
Noise and dust from construction activities?			
■ Temporary silt runoff due to construction?			
Hazards to public health due to inadequate management of landfill site caused by inadequate institutional and financial capabilities for the management of the landfill operation?			
Emission of potentially toxic volatile organics from land disposal site?			
Surface and ground water pollution from leach ate and methane gas migration?			
■ Loss of deep-rooted vegetation (e.g. tress) from landfill gas?			
Explosion of toxic response from accumulated landfill gas in buildings?			
Contamination of air quality from incineration?			

Screening Questions	Yes	No	Remarks
Public health hazards from odor, smoke from fire, and diseases transmitted by flies, rodents, insects and birds, etc.?			
Health and safety hazards to workers from toxic gases and hazardous materials in the site?			
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 if workers from other regions or countries are hired?			
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?			
Community safety risks due to both accidental and natural hazards, especially where the structural elements or components (e.g., landfill or incinerator) 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?			

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Appendix IX.F: REA Checklist for Agro-Industrial Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

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			
■ Bay			
B. Potential Environmental Impacts Will the Project cause			
Ecological disturbances arising from the establishment of a plant or facility complex in or near sensitive habitats?			
Eventual degradation of water bodies due to discharge of wastes and other effluents from plant or facility complex?			
Serious contamination of soil and groundwater?			
Aggravation of solid waste problems in the area?			

Screening Questions	Yes	No	Remarks
Public health risks from discharge of wastes and poor air quality; noise and foul odor from plant emissions?			
Short-term construction impacts (e.g. soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?			
Dislocation or involuntary resettlement of people?			
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
■ Environmental degradation (e.g. erosion, soil and water contamination, loss of soil fertility, disruption of wildlife habitat) from intensification of agricultural land use to supply raw materials for plant operation; and modification of natural species diversity as a result of the transformation to monoculture practices?			
Water pollution from discharge of liquid effluents?			
Air pollution from all plant operations?			
Gaseous and odor emissions to the atmosphere from processing operations?			
Accidental release of potentially hazardous solvents, acidic and alkaline materials?			
Uncontrolled in-migration with opening of roads to forest area and overloading of social infrastructure?			
Occupational health hazards due to fugitive dust, materials handling, noise, or other process operations?			
Disruption of transit patterns, creation of noise and congestion, and pedestrian hazards aggravated by heavy trucks?			
Disease transmission from inadequate waste disposal?			
Risks and vulnerabilities related to occupational health and safety due to physical, chemical, and biological hazards during project construction and operation?			

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Screening Questions	Yes	No	Remarks
Large population increase during project construction and operation that cause increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
Social conflicts if workers from other regions or countries are hired?			
Community health and safety risks due to the transport, storage, and use and/or disposal of materials likely to create physical, chemical and biological hazards during construction, operation and decommissioning?			

Appendix IX.G: REA Checklist for Irrigation Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

(i) 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.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
■ Protected Area			
■ Wetland			
■ Mangrove			
■ Estuarine			
Buffer zone of protected area			

Screening Questions	Yes	No	Remarks
Special area for protecting biodiversity			
B. Potential Environmental Impacts Will the Project cause			
Loss of precious ecological values (e.g. result of encroachment into forests/swamplands or historical/cultural buildings/areas, disruption of hydrology of natural waterways, regional flooding, and drainage hazards)?			
Conflicts in water supply rights and related social conflicts?			
Impediments to movements of people and animals?			
Potential ecological problems due to increased soil erosion and siltation, leading to decreased stream capacity?			
• Insufficient drainage leading to salinity intrusion?			
Over pumping of groundwater, leading to salinization and ground subsidence?			
Impairment of downstream water quality and therefore, impairment of downstream beneficial uses of water?			
Dislocation or involuntary resettlement of people?			
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
Potential social conflicts arising from land tenure and land use issues?			
Soil erosion before compaction and lining of canals?			
Noise from construction equipment?			
Dust during construction?			
Waterlogging and soil salinization due to inadequate drainage and farm management?			

Screening Questions	Yes	No	Remarks
Leaching of soil nutrients and changes in soil characteristics due to excessive application of irrigation water?			
Reduction of downstream water supply during peak seasons?			
Soil pollution, polluted farm runoff and groundwater, and public health risks due to excessive application of fertilizers and pesticides?			
■ Soil erosion (furrow, surface)?			
Scouring of canals?			
Clogging of canals by sediments?			
Clogging of canals by weeds?			
Seawater intrusion into downstream freshwater systems?			
• Introduction of increase in incidence of waterborne or water related diseases?			
Dangers to a safe and healthy working environment due to physical, chemical and biological hazards during project construction and operation?			
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 if workers from other regions or countries are hired?			
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?			
Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., irrigation dams) 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?			

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Appendix IX.H: REA Checklist – General Projects

Rapid Environmental Assessment (REA) Checklist

Instructions:

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.

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			
■ Legally protected Area (core zone or buffer zone)			
■ Wetland			
■ Mangrove			
Estuarine			
 Special area for protecting biodiversity 			
B. Potential Environmental Impacts Will the Project cause			
Impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources?			
Disturbance to precious ecology (e.g. sensitive or protected areas)?			
• Alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?			
Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			

Screening Questions	Yes	No	Remarks
• Increased air pollution due to project construction and operation?			
Noise and vibration due to project construction or operation?			
 Involuntary resettlement of people? (physical displacement and/or economic displacement) 			
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
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?			
Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?			
Social conflicts if workers from other regions or countries are hired?			
Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
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?			
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?			

Screening Questions	Yes	No	Remarks
■ Generation of solid waste and/or hazardous waste?			
■ Use of chemicals?			
Generation of wastewater during construction or operation?			

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Appendix X: ADB's Social Protection Requirements

The Social Protection Strategy requires all P3A projects that receive funding from the ADB to comply with applicable labor laws in relation to the investment. Sub-borrowers should take the following measures to comply with the core labor standards²⁵:

- (a) Carry out its activities consistent with the intent of ensuring legally permissible equal opportunity, fair treatment and non-discrimination in relation to recruitment and hiring, compensation, working conditions and terms of employment for its workers (including prohibiting any form of discrimination against women during hiring and providing equal work for equal pay for men and women engaged by the sub-borrower);
- (b) Not restrict its workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and
- (c) Engage contractors and other providers of goods and services:
 - (i) Who do not employ child labor²⁶ or forced labor²⁷;
 - (ii) Who have appropriate management systems that will allow them to operate in a manner which is consistent with the intent of (A) ensuring legally permissible equal opportunity and fair treatment and nondiscrimination for their workers, and (B) not restricting their workers from developing a legally permissible means of expressing their grievances and protecting their rights regarding working conditions and terms of employment; and
 - (iii) Whose subcontracts contain provisions which are consistent with paragraphs (i) and (ii) above.

The above measures should be incorporated in the sub-borrowers' environmental (and/or social) management plan (ESMP).

The monitoring and reporting requirements should also state that the (i) the sub-borrower will provide P3A with an annual report on its compliance with the measures identified above. P3A should monitor the compliance of the sub-borrower and include this in this in the Semi-Annual Environmental and Social Performance Report.

The core labor standards are the elimination of all forms of forced or compulsory labor; the abolition of child labor; elimination of discrimination in respect of employment and occupation; and freedom of association and the effective recognition of the right to collective bargaining, as per the relevant conventions of the International Labor Organization.

Child labor means the employment of children whose age is below the statutory minimum age of employment in Pakistan, or employment of children in contravention of International Labor Organization Convention No. 138 'Minimum Age Convention" (www.ioo.org).

Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

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Appendix XI: Involuntary Resettlement (IR) Risk Categorization

		Date:/
A. Project Data Project Title:		
B. Involuntary Resettlement Cate [] New [] Re-categorization —		
□Category A □Category B	□Category C	□Category FI
C. Comments by Project:		
Field Team (Project Screening and Categorization Comm	CRO PSF Sa	afeguards
D. Approval		
Submitted and Safeguards Focal & PPP Node Date:	Recommended By: Director E&S PPP Unit Date	Confirmed /Endorsed by: Chief Risk Officer PSF Date:
Reviewed and Accepted by : (For category A only)		
(i or outogory A only)	Project Safeguards Officer PRM ADB	Project Team leader PRM ADB

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Involuntary Resettlement Impact Categorization Checklist

Probable Involuntary Resettlement Effects (Please elaborate in the Remarks column)	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?				
2. Is the site for land acquisition known?				
Is the ownership status and current usage of land to be acquired known?				
Will easement be utilized within an existing right of way (ROW)?				
5. Will there be loss of shelter and residential land due to land acquisition?				
Will there be loss of agricultural and other productive assets due to land acquisition?				
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?				
8. Will there be loss of businesses or enterprises due to land acquisition?				
Will there be loss of income sources and means of livelihoods due to land acquisition?				
Involuntary Restrictions on Land Use or on Ac	cess to	Legall	y Designa	ted Parks and Protected Areas
Will people lose access to natural resources, communal facilities and services?				
11. If land use is changed, will it have an adverse impact on social and economic activities?				

(Please elaborate in the Remarks column)	Yes	No	Not Known	Remarks			
12. Will access to land and resources owned communally or by the state be restricted?							
Information on Displaced Persons:							
Any estimate of the likely number of persons	that will	be dis	placed by	the Subproject?			
1 []	No [] Ye	es				
If yes, approximately how many?Not Ap	plicable)		_			
Are any of them poor, female-heads of house	holds, o	or vulne	erable to p	poverty risks?			
1 []	ا oا] Ye	es				
Are any displaced persons fro	m indig	enous	or ethnic	minority groups?			
1 []	ا oا] Ye	es				
Assessment on A	dvisor	y Supp	oort Requ	uired			
1. Will the PPP node require PDF advisory support to engage consultants for conducting detailed assessment of IR related and social impacts and prepare relevant safeguards documents i.e Due Diligence Report and Land Acquisition and Resettlement Plans?							
[] No [] Yes							
2. If yes, are the TORs for required consultancy support attached?							
1 []	lo [] Ye	es				
Consider to append the TORs with project concep		- 0					
3. At what stage the consultants hiring pr	ocess i	15 (
[] vet to start							

4. If consultants are already hired have they submitted the Safeguards documents for review and feedback					
[] No [] Yes					
5. If not, what are the estimated timelines for preparation and submission of the safeguards documents for PSF and ADB's review and acceptance?					
[] in a month [] two-three months [] Above three months					

Date: ____/ _____/

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Appendix XII: Indigenous Peoples (IPs) Risk Categorization

A. Project Data				
Project Title:				
-				
B. Indigenous F	Peoples Category			
[] New	[] Re-categorization	n — Previous Category []	
□Category A	□Category B	□Category C		□Category FI
Project requires the broples communities.	oad community support of	affected Indigenous	□Yes	□No
C. Comments by	y Project Team			
Field Team (Project Screening and C	Categorization Committees)	PSF Safeguards		
	atogonzation committees)			
D. Approval				
Submitted by: Safeguards Focal	Recommended By:		Confir	med /Endorsed by:
& PPP Node	Director E&S PPP Unit		PSF	Risk Officer
Date:	Date		Date:	

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Reviewed and Accepted by:

(For category A only) Project Safeguards Officer

PRM ADB

Project Team leader

PRM ADB

1. Indigenous Peoples Impact Screening Checklist

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
A. Indigenous Peoples Identification				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?				
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3. Do such groups self-identify as being part of a distinct social and cultural group?				
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
6. Do such groups speak a distinct language or dialect?				
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?				
B. Identification of Potential Impacts				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?				
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)				
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?				
C. Identification of Special Requirements				
Will the project activities include:	<u> </u>			
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?				
14. Physical displacement from traditional or customary lands?				
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?				

Anticipated negative effect

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KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?				
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?				

Anticipated positive effect

E. Anticipated project impacts on Indigenous Peoples

[] One-Two Months

Project component/

activity/ output		
F. Assessment on Ac	dvisory Support Required	
		t detailed assessment of IP impacts
(adverse and beneficial) and prepare	are indigenous people plan?	
	[] No [] Yes	
3. If yes, are the TORs for co	nsultancy support required attact	hed?
	[] No [] Yes	
Consider to append the TORs with	project concept paper.	
What are the estimated timelin and ADB's review and accepta		on of the safeguards documents for PSF

[] Three-four months [] Above four Months

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Appendix XIII: TORs for Safeguard Consulting Firm

Context

The Parliament promulgated the Public Private Partnership Authority Act 2017 as an Act to create an enabling environment for private sector participation in development projects and in the provision of public infrastructure and related services in Pakistan through public private partnership projects. Parliament amended the 2017 Act in 2021 through the Public Private Partnership Authority (Amendment) Act 2021.

The entire project delivery process, from project development to construction and then operation, under the PPP approach needs compliance of national and international environmental and social safeguards applicable under the relevant safeguard policies and legislation. The P3A will ensure compliance with the relevant legislation by the GOP as well as any specific requirements of the Financing Source(s).

Being at its naissance stage, the P3A needs to demonstrate its capacity to ensure compliance of the environmental and social safeguards, especially for all Category A projects. Hence, it requires services of an Environmental and Social Development Consulting Firm on retainer basis. Liaison & coordinate with [], relevant staff of P3A as the case may be the selected firm will have the following specific responsibilities:

Responsibilities

- Prepare guidelines / templates for developing environmental assessment reports to be followed by the Technical Advisors and / or environmental experts engaged by the P3A and IA.
- Ensure that the environmental impact assessment reports, and the resettlement documentation prepared for Category A and Category B projects satisfactorily meets the requirements of the Financing Source(s).
- Manage the preparation process of all the PPP project safeguards documents during the PPP project's design stage.
- Conduct a review of any IEEs / EIAs and LARPs submitted as part of unsolicited proposals and ensure that the documents produced meet the requirements of the Financing Source(s).
- Assist and advise the Environment Specialist, P3A in submission of the EIA/IEE reports to the Pakistan Environmental Protection Agency for approval.
- Produce the necessary social safeguard due diligence documents / reports as required by the Financing Source(s).
- Once the PPP project implementation (construction) starts, support P3A to conduct safeguard reviews of the ongoing civil works at least twice a year and report to the Financing Source(s).
- Support P3A in review of environmental monitoring reports received from the concessionaires before final submission to the Financing Source(s) for approval and disclosure.

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 Conduct training and build hands-on capacity of the relevant staff at the P3A and the IA to gradually take over the respective roles from the Consulting Firm.

Qualifications

- The Consulting Firm should be registered under Pakistani law.
- The Firm should have at least 10 years' experience in providing consultancy services in the areas of environmental assessment and/or environmental management, especially environmental screening, assessment including identification of potential impact and analysis of alternatives, management planning and monitoring.

The selected firm should have thorough understanding of the Government's environmental regulations and procedures along with any specific requirements of the Financing Source(s). Prior experience of working with public sector and international financing institutions will be an advantage.

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Appendix XIV: TORs for Environment Specialist

Context

The Parliament promulgated the Public Private Partnership Authority Act 2017 as an Act to create an enabling environment for private sector participation in development projects and in the provision of public infrastructure and related services in Pakistan through public private partnership projects. Parliament amended the 2017 Act in 2021 through the Public Private Partnership Authority (Amendment) Act 2021.

The entire project delivery process, from project development to construction and then operation, under the PPP approach needs compliance of national and international environmental and social safeguards applicable under the relevant safeguard policies and legislation. The P3A will ensure compliance with the relevant legislation by the GOP as well as any specific requirements of the Financing Source(s).

The PPP Support Facility intends to hire services of an Environment Specialist to ensure compliance of environmental safeguards, especially in terms of environmental impact assessment. Reporting to the [], the incumbent will have the following specific responsibilities:

Responsibilities

- Support the finalization and operationalization of the Environmental and Social Management System (ESMS).
- Facilitate the conducting of training and provide technical advice on the ESMS to P3A, IA and relevant staff of the Government of Pakistan.
- Coordinate with the Assistant Director, Environment, PPP Unit and PPP Nodes for the screening/categorization of subproject proposals for environmental impacts and climate change risks, and recommend further due diligence required for processing of the proposal.
- Receive the approval of the project categorization document with both [] and Director Safeguards, PPP Unit.
- Forward all PPP project screening checklists including Screening checklists, PPP project descriptions and draft categorization to the respective Financing Source(s) for final categorization of all PPP projects.
- Inform the [] on emerging environmental safeguards issues, risks and complaints and propose appropriate measures for addressing these.
- Prepare the Terms of Reference (TOR) of the environmental impact assessment consultant and share with PPP Unit focal staff for review and comments.
- If a PPP project is categorized as environment category A, ensure that reputed firm with required capacities is hired for EIA purposes.
- For environment category 'A' PPP projects, after preliminary review and formal vetting by the Environmental Consulting Firm, facilitate the submission of the EIA to the Financing Source(s) for review and clearance.

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- If a PPP project is categorized as environment category 'B', ensure that provisions of the Sindh Environmental Protection Act, 2014, and Environmental Assessment and Review Guidelines (2014) are followed.
- Supervise the review of environmental assessment reports in collaboration with PPP Unit focal staff (both category 'A' and 'B') and plans, confirm compliance with Sindh EPA regulations and prepare due diligence report for category A/B projects.
- Review in collaboration with PPP Unit staff the annual environmental monitoring report on the
 performance of the different PPP projects for submission to the Financing Source(s) for all
 category 'B' PPP projects, and bi-annually for category 'A' PPP projects.
- Proactively integrate environmental policies and safeguards into the PPP process.
- Review the PDF request for adequacy of environmental assessment costs.
- Build environmental safeguards implementation capacity in the PPP Nodes.
- Provide support to the PPP Nodes during the environmental assessment and review process in cases where feasibility studies are being prepared at the Nodes.
- Provide necessary advice to the P3A on the relevant cost items in the proposal before submission of the proposal to the PPP Policy Board.
- Review the environmental aspects of bid evaluation before submission to the PPP Policy Board.
- Coordinate monitoring of the compliance of agreed mitigation measures by the relevant Government Agency and the contractor.
- Track record in collaboration with PPP Unit of development and disclosure of biannual Environmental Monitoring Reports as well as Corrective Action Plan(s), and submission of the same to the relevant authorities, including [] and the Financing Source(s).
- Facilitate the conducting of the periodic ESMS audit.
- Report any violations of the environmental safeguards to the [] for onward submission to the PPP Policy Board for necessary action.
- Support the [] in setting up the Grievance Redress Mechanism at the [].

Qualifications

- At least master's degree in environmental management or allied environmental sciences.
- At least 10 years' experience in environmental safeguards management, especially environmental screening, assessment including identification of potential impact and analysis of alternatives, management planning and monitoring.
- The candidate should have thorough understanding of government's environmental regulations and procedures.

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Appendix XV: TORs for Social Development Specialist

Context

The Parliament promulgated the Public Private Partnership Authority Act 2017 as an Act to create an enabling environment for private sector participation in development projects and in the provision of public infrastructure and related services in Pakistan through public private partnership projects. Parliament amended the 2017 Act in 2021 through the Public Private Partnership Authority (Amendment) Act 2021.

The entire project delivery process, from project development to construction and then operation, under the PPP approach needs compliance of national and international environmental and social safeguards applicable under the relevant safeguard policies and legislation. The P3A, will ensure compliance with the relevant legislation by the GOP as well as specific requirements of the Funding Source(s).

The P3A intends to hire services of a Social Development Specialist (SDS) to ensure compliance of social safeguards, especially related to involuntary resettlement and indigenous peoples. Reporting to the [] the incumbent will have the following specific responsibilities:

Responsibilities

- Support the finalization and operationalization of the Environmental and Social Management System (ESMS).
- In coordination with the Assistant Director, Social Development, PPP Unit, screen subproject proposals for involuntary resettlement and / or indigenous peoples (IR/IP) impacts.
- Recommend IR / IP categorization and conduct further assessment and due diligence for the review of the proposal, as required.
- Review LARPs / IPPs prepared by the Technical Advisors and Concessionaires, and prepare due diligence report for category A / B projects.
- Conduct meaningful consultations and disclose project and LARPs / IPPs with key stake holders and affected people.
- Advise proponents on the disclosure of LARPs and social monitoring reports.
- Conduct field visits; oversee the monitoring of PPP project implementation for compliance with social safeguards requirements and prepare the monitoring reports.
- Prepare the annual social performance report for submission to PPP Unit and ADB.
- Prepare the terms of reference (TOR) and supervise the work of social development consultants who may be called up on to assist in LARP preparation, and monitoring, as appropriate.
- Monitor compliance of agreed mitigation measures by the relevant Government Agency and the concessionaire.
- Prepare and disclose periodic (normally biannual) Social Monitoring Reports as well as Corrective Action Plan(s), and submit the same to PPP Unit and ADB.
- Report any violations of social safeguards and emerging issues and complaints to the [
 and the PPP Unit.
- Build hands on capacity of the relevant staff of the PPP Unit and the PPP Nodes in managing social safeguards.

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Support the ADSD in (a) overseeing the implementation and monitoring of gender related
actions described in the Summary Poverty Reduction and Social Strategy (SPRSS); (b)
capacity building of PPP Node in planning and implementing gender-related actions in projects;
and (c) reviewing proposals submitted by proponents from social protection, social
development and gender perspective.

Qualifications

- At least master's degree in sociology or allied social sciences.
- At least 5 years' experience in social safeguards management, especially related to involuntary resettlement, indigenous peoples, social assessments and developing land acquisition and resettlement plans.
- The candidate should have thorough understanding of Government's resettlement regulations and procedures along with any specific requirements of the Funding Source(s).

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Appendix XVI: Outline of a Resettlement Plan For PPP Projects

A resettlement plan is required for all PPP projects with involuntary resettlement impacts. Its level of detail and comprehensiveness is commensurate with the significance of potential involuntary resettlement impacts and risks. The substantive aspects of the outline will guide the preparation of the resettlement plans, although not necessarily in the order shown.

A. Executive Summary

This section provides a concise statement of project scope, key survey findings, entitlements and recommended actions.

B. Project Description

This section provides a general description of the project, discusses project components that result in land acquisition, involuntary resettlement, or both and identify the project area. It also describes the alternatives considered to avoid or minimize resettlement. Include a table with quantified data and provide a rationale for the final decision.

C. Scope of Land Acquisition and Resettlement

This section:

- i. Discusses the project's potential impacts, and includes maps of the areas or zone of impact of project components or activities;
- ii. Describes the scope of land acquisition (provide maps) and explains why it is necessary for the main investment project;
- iii. Summarizes the key effects in terms of assets acquired and displaced persons; and
- iv. Provides details of any common property resources that will be acquired.

D. Socioeconomic Information and Profile

This section outlines the results of the social impact assessment, the census survey, and other studies, with information and/or data disaggregated by gender, vulnerability, and other social groupings, including:

- i. Define, identify, and enumerate the people and communities to be affected;
- ii. Describe the likely impacts of land and asset acquisition on the people and communities affected taking social, cultural, and economic parameters into account;
- iii. Discuss the project's impacts on the poor, indigenous and/or ethnic minorities and other vulnerable groups; and

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iv. Identify gender and resettlement impacts, and the socioeconomic situation, impacts, needs, and priorities of women.

E. Information Disclosure, Consultation, and Participation

This section:

- i. Identifies project stakeholders, especially primary stakeholders;
- ii. Describes the consultation and participation mechanisms to be used during the different stages of the project cycle;
- iii. Describes the activities undertaken to disseminate project and resettlement information during project design and preparation for engaging stakeholders;
- iv. Summarizes the results of consultations with affected persons (including host communities), and discusses how concerns raised and recommendations made were addressed in the resettlement plan;
- v. Confirms disclosure of the draft resettlement plan to affected persons and includes arrangements to disclose any subsequent plans; and
- vi. Describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for consultation with affected persons during project implementation.

F. Grievance Redress Mechanisms

This section describes mechanisms to receive and facilitate the resolution of affected persons' concerns and grievances. It explains how the procedures are accessible to affected persons and gender sensitive.

G. Legal Framework

This section:

- i. Describes national and local laws and regulations that apply to the project and identify gaps between local laws and ADB's policy requirements; and discuss how any gaps will be addressed.
- ii. Describes the legal and policy commitments from the executing agency for all types of displaced persons:
- iii. Outlines the principles and methodologies used for determining valuations and compensation rates at replacement cost for assets, incomes, and livelihoods; and set out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided.
- iv. Describes the land acquisition process and prepare a schedule for meeting key procedural requirements.

H. Entitlements, Assistance and Benefits

This section:

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- i. Defines displaced persons' entitlements and eligibility, and describes all resettlement assistance measures (includes an entitlement matrix);
- ii. Specifies all assistance to vulnerable groups, including women, and other special groups; and.
- iii. Outline opportunities for affected persons to derive appropriate development benefits from the project.

I. Relocation of Housing and Settlements

This section:

- Describes options for relocating housing and other structures, including replacement housing, replacement cash compensation, and/or self-selection (ensure that gender concerns and support to vulnerable groups are identified);
- ii. Describes alternative relocation sites considered; community consultations conducted; and justification for selected sites, including details about location, environmental assessment of sites, and development needs;
- iii. Provides timetables for site preparation and transfer;
- iv. Describes the legal arrangements to regularize tenure and transfer titles to resettled persons;
- v. Outlines measures to assist displaced persons with their transfer and establishment at new sites;
- vi. Describes plans to provide civic infrastructure; and
- vii. Explains how integration with host populations will be carried out.

J. Income Restoration and Rehabilitation

This section:

- i. Identifies livelihood risks and prepare disaggregated tables based on demographic data and livelihood sources;
- ii. Describes income restoration programs, including multiple options for restoring all types of livelihoods (examples include project benefit sharing, revenue sharing arrangements, joint stock for equity contributions such as land, discuss sustainability and safety nets);
- iii. Outlines measures to provide social safety net through social insurance and/or project special funds;
- iv. Describes special measures to support vulnerable groups;
- v. Explains gender considerations; and
- vi. Describe training programs.

K. Resettlement Budget and Financing Plan

This section:

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- Provide an itemized budget for all resettlement activities, including for the resettlement unit, staff training, monitoring and evaluation, and preparation of resettlement plans during loan implementation.
- ii. Describes the flow of funds (the annual resettlement budget should show the budget-scheduled expenditure for key items).
- iii. Includes a justification for all assumptions made in calculating compensation rates and other cost estimates (taking into account both physical and cost contingencies), plus replacement costs.
- iv. Include information about the source of funding for the resettlement plan budget.

L. Institutional Arrangements

This section:

- Describes institutional arrangement responsibilities and mechanisms for carrying out the measures
 of the resettlement plan;
- ii. Includes institutional capacity building program, including technical assistance, if required;
- iii. Describes role of NGOs, if involved, and organizations of affected persons in resettlement planning and management; and
- iv. Describes how women's groups will be involved in resettlement planning and management.

M. Implementation Schedule

This section includes a detailed, time bound, implementation schedule for all key resettlement and rehabilitation activities. The implementation schedule should cover all aspects of resettlement activities synchronized with the project schedule of civil works construction, and provide land acquisition process and timeline.

N. Monitoring and Reporting

This section describes the mechanisms and benchmarks appropriate to the project for monitoring and evaluating the implementation of the resettlement plan. It specifies arrangements for participation of affected persons in the monitoring process. This section will also describe reporting procedures.

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Appendix XVII: Outline of an Indigenous Peoples Plan for PPP Projects

1. An Indigenous Peoples plan (IPP) is required for all subprojects with impacts on Indigenous Peoples. Its level of detail and comprehensiveness is commensurate with the significance of potential impacts on Indigenous Peoples. The substantive aspects of this outline will guide the preparation of IPPs, although not necessarily in the order shown.

A. Executive Summary of the Indigenous Peoples Plan

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

B. Description of the PPP Project

3. This section provides a general description of the subproject; discusses subproject components and activities that may bring impacts on Indigenous Peoples; and identifies the subproject area.

C. Social Impact Assessment

- 4. This section:
 - (i) Reviews the legal and institutional framework applicable to Indigenous Peoples in subproject context;
 - (ii) Provides baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples communities; the land and territories that they have traditionally owned or customarily used or occupied; and the natural resources on which they depend;
 - (iii) Identifies key subproject stakeholders and elaborate a culturally appropriate and gendersensitive process for meaningful consultation with Indigenous Peoples at each stage of subproject preparation and implementation, taking the review and baseline information into account;
 - (iv) Assesses, based on meaningful consultation with the affected Indigenous Peoples communities, the potential adverse and positive effects of the subproject. Critical to the determination of potential adverse impacts is a gender-sensitive analysis of the relative vulnerability of, and risks to, the affected Indigenous Peoples communities given their particular circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to those available to other social groups in the communities, regions, or national societies in which they live;
 - (v) Includes a gender-sensitive assessment of the affected Indigenous Peoples' perceptions about the subproject and its impact on their social, economic, and cultural status; and
 - (vi) Identifies and recommends, based on meaningful consultation with the affected Indigenous Peoples communities, the measures necessary to avoid adverse effects or, if such measures are not possible, identifies measures to minimize, mitigate, and/or

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compensate for such effects and to ensure that the Indigenous Peoples receive culturally appropriate benefits under the subproject.

D. Information Disclosure, Consultation and Participation

5. This section:

- Describes the information disclosure, consultation and participation process with the affected Indigenous Peoples communities that was carried out during subproject preparation;
- Summarizes their comments on the results of the social impact assessment and identifies concerns raised during consultation and how these have been addressed in subproject design;
- iii. In the case of subproject activities requiring broad community support, documents the process and outcome of consultations with affected Indigenous Peoples communities and any agreement resulting from such consultations for the subproject activities and safeguard measures addressing the impacts of such activities;
- iv. Describes consultation and participation mechanisms to be used during implementation to ensure Indigenous Peoples participation during implementation; and
- v. Confirms disclosure of the draft and final IPP to the affected Indigenous Peoples communities.

E. Beneficial Measures

6. This section specifies the measures to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate, and gender responsive.

F. Mitigative Measures

7. This section specifies the measures to avoid adverse impacts on Indigenous Peoples; and where the avoidance is impossible, specifies the measures to minimize, mitigate and compensate for identified unavoidable adverse impacts for each affected Indigenous Peoples groups.

G. Capacity Building

8. This section provides measures to strengthen the social, legal, and technical capabilities of (a) government institutions to address Indigenous Peoples issues in the subproject area; and (b) Indigenous Peoples organizations in the subproject area to enable them to represent the affected Indigenous Peoples more effectively.

H. Grievance Redress Mechanism

9. This section describes the procedures to redress grievances by affected Indigenous Peoples communities. It also explains how the procedures are accessible to Indigenous Peoples and culturally appropriate and gender sensitive.

I. Monitoring, Reporting and Evaluation

10. This section describes the mechanisms and benchmarks appropriate to the subproject for monitoring, and evaluating the implementation of the IPP. It also specifies arrangements for

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participation of affected Indigenous Peoples in the preparation and validation of monitoring, and evaluation reports.

J. Institutional Arrangement

11. This section describes institutional arrangement responsibilities and mechanisms for carrying out the various measures of the IPP. It also describes the process of including relevant local organizations and NGOs in carrying out the measures of the IPP.

K. Budget and Financing

12. This section provides an itemized budget for all activities described in the IPP.

Appendix XVIII: Suggested Outline of Environmental and Social Due Diligence Report

A. Introduction

- 1. PPP project's description: title, type of PPP project, location and setting, amount, size (production capacity, number of staff, etc.).
- 2. Environmental and social categorization and rationale.
- 3. Applicable Environmental and Social Requirements.

B. Scope of Review and Methodology

- 1. Documents reviewed (e.g., environmental assessment reports, involuntary resettlement plan, Indigenous Peoples plan, or environmental and social compliance audit reports, copies of permits/licenses, etc.).
- 2. Methodology adopted (e.g. site visit, inspection report, etc)
- C. Compliance and Liability (by relevant safeguard requirements applicable for the specific subproject, examine environmental and social issues and compliance)
 - Examine issues in terms of environmental, involuntary resettlement and indigenous peoples impacts, mitigation measures to address these issues (or corrective action plan for existing facilities) and compliance status with applicable Financing Source's (eg. ADB) environmental and social safeguard requirements and national laws, regulations, and standards:

(i) Environmental Safeguards

- a. Appropriate identification of major anticipated environmental impacts and risks;
- b. Adequacy of environmental assessment (for category A projects, including the adequacy of alternative analysis);
- c. Compliance status with applicable requirements on (i) information disclosure, (ii) consultation with affected people and other stakeholders, (iii) occupational and community health and safety, biodiversity conservation and sustainable natural resource management, and physical cultural resources; and

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d. Adequacy of mitigation measures and EMP (mitigation measures, monitoring and reporting, institutional arrangement, budget), or corrective action plan for existing facilities, if any.

(ii) Involuntary Resettlement Safeguards

- a. Appropriate identification of major anticipated involuntary resettlement impacts and risks (including both physical displacement and economic displacement);
- b. Adequacy of assessment of social impacts, information disclosure and consultation with affected people and other stakeholders;
- c. Adequacy of compensation and benefits for displaced persons
- d. Adequacy of resettlement plan (measures to enhance or restore the livelihoods of displaced persons, monitoring and reporting, institutional arrangement, budget), or corrective action plan for existing facilities, if any; and
- e. Private sector responsibilities under government-manages resettlement.

(iii) Indigenous Peoples Safeguards

- a. Appropriate identification of major anticipated impacts on Indigenous Peoples (including potential impacts on traditional or customary lands under use; relocation of Indigenous Peoples from traditional and customary lands, and impacts on cultural resources);
- b. Adequacy of information disclosure and meaningful consultation;
- c. Broad community support, where applicable;
- d. Adequacy of measures to avoid adverse impacts; and
- e. Adequacy of Indigenous Peoples plan (benefit sharing, measures to mitigate and minimize adverse impacts, monitoring and reporting, institutional arrangement, budget), or corrective action plan for existing facilities, if any.

(iv) Adequacy of grievance redress mechanism arrangements

- 2. Recommend mitigation measures, or corrective action plans, if gaps are identified
- 3. For existing facilities including PPP projects under construction, examine whether the PPP project's company paid pollution charges or fines/penalties for non-compliance in the last two years in accordance with national laws, whether the PPP project company is exposed to potentially significant liabilities, such as those arising from known or suspected land / groundwater contamination, major accidents and incidents related to the company's past or ongoing operations, and state further actions required / planned by the PPP project company, in particular actions to address any non-compliance problems and liabilities. Also examine whether there are complaints from the public or local communities regarding the PPP project company's environmental and social performance.
- 4. State any risk control or mitigation measures to be taken by the PPP project company, such as conditions, loan covenants or monitoring and reporting requirements

- D. Other PPP project Specific Issues, if any
- E. Conclusion and Recommendations

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Appendix XIX: Suggested Scope for an Annual Social Safeguards Monitoring Report for PPP Projects

A. Introduction

i. Brief project description

B. Physical Progress of Subproject Components with Resettlement and Indigenous Peoples Impacts

 List of subproject components with resettlement and indigenous peoples impacts and progress updates (including engineering progress, and ground clearing, land acquisition and structure demolition progress)

C. Scope of Resettlement Impacts and and/or Impacts on Indigenous Peoples

- i. Actual scope of land acquisition and resettlement (including the methodology to determine the actual scope of land acquisition and resettlement, and comparison with the scope of impacts in resettlement plan(s)
- ii. Actual impacts on Indigenous Peoples (including the methodology to determine the actual scope of impacts on Indigenous Peoples, and comparison with the scope of impacts in Indigenous Peoples plan(s))

D. Institutional Arrangements

- i. Key organizations involved in resettlement plan and/or IPP implementation
- ii. Progress of activities implemented by other organizations
- iii. Specific implementation arrangements for Indigenous Peoples

E. Compensation Rates, Payment and Assistance Delivery

- i. Compensation rates for land, resettlement subsidies, standing crops, and trees
- ii. Compensation for buildings and allowances for relocation
- iii. Allocation and utilization of resettlement compensation
- iv. Payment delivery to affected village groups and individuals
- v. Assistance delivery to affected Indigenous Peoples

F. Status of Land Acquisition, Resettlement, and Reconstruction

- i. Housing relocation and reconstruction
- ii. Provision of replacement agricultural and/or commercial land
- iii. Restoration of affected public infrastructure and facilities

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- iv. Restoration of land used for construction-related activities
- v. Implementation progress of income restoration activities
- vi. Support to vulnerable groups
- vii. Implementation progress of specific measures for affected Indigenous Peoples

G. Status of Provisions for Indigenous Peoples

- i. Culturally appropriate beneficial measures for each affected IP groups
- ii. Mitigative measures for each affected IP groups
- iii. Capacity Building measures for IP communities in the subproject area
- iv. Broad community support, where required

H. Consultation and Disclosure Activities and Grievance Procedures

- i. Consultations on compensation standards and fees, relocation options, etc.
- ii. Specific consultations conducted with Indigenous Peoples on the subproject, its impacts and assistance to Indigenous Peoples
- iii. Any good faith negotiation to resolve major disagreements with Indigenous Peoples
- iv. Grievances received and actions taken to address them

I. Grievance Redress Mechanism

- i. Date established and description of organizational arrangements
- ii. Grievances reported and resolution processes (e.g., nature of grievance, recorded dates and organizations involved, actions taken to resolve grievances, and media or community reactions (if any)
- J. Compliance with Applicable Social Safeguard Requirements as Defined in the Section II
 B of [Name of Bank]'s ESMS

K. Concerns and Work Plan

- i. Concerns encountered, solutions provided and good practices established
- ii. Work plan (staffing, training, and work schedules)

Name and Signature	Na	ıme	and	Sign	ature
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Name:	Date:
Position:	Phone:
Signature:	E-mail

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Appendix XX: ToRs for Environment & Social Safeguards Audit of Existing Facilities

Scope of Work

The general objectives of this review and audit are as follows:

- Summarise the relevant characteristics of the Project related to environmental, social, and health and safety (ESHS) aspects based on a review of existing information and a site reconnaissance. Relevant characteristics include: the Project description; institutional and legal framework; environmental and social conditions; ESHS impacts and risks; environmental and social mitigation and monitoring measures; and consultation with affected population.
- Confirm to the Financing Source the compliance of the Project development plan with applicable environmental and statutory requirements.
- Coordinate and assist the Financing Source, in the review process with reference to environmental and social matters in connection with the financing of the Project, including coordinating an integrated and streamlined information exchange process among the Financing Source. These general objectives have been undertaken by Sustainability following specific tasks identified as follows:

Task 1: Review of Background Information – this will include review of the EIA/IEE documentation and associated Environmental and Social reports, plans, policies and strategies submitted and provided and other publicly available information. The document review shall focus on the following main areas:

- Completeness in terms of baseline environmental and social data and impact analysis methodology; Conformance with applicable national laws;
- Conformance with international environmental agreements and good international industry practice (GIIP);
- Conformance with Financing Source specific policies and guidelines, such as ADB SPS and other social requirements (ADB Gender and Development (GAD) Policy, ADB's Policy on Incorporation of Social Dimensions into ADB Operations, and ADB's Public Communications Policy);
- Conformance with applicable IFC Performance Standards (PSs) and Equator Principles (EPs), as applicable;
- Status of (ESMPs) and Environmental and Social Action Plan (ESAP)/Corrective Action Plan (CAP);
 Status of Stakeholder Engagement Plans (SEPs) including internal and external grievance mechanisms;
- Health and safety (H&S) provisions and record for the Project, including pertinent H&S
 provisions as presented in the ESIA documentation, other pertinent information on the Project
 web site, and information on the Project web site to provide a bench mark of accident rates for
 the Project relative to industry norms.

Task 2: Site Visit and Meetings with Project Personnel - The site visit and meetings will include

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Task 3: Environmental and Social Due Diligence Report

- Preparation of an initial Draft Environmental and Social Compliance Audit Report for review and comment by lenders, such as ADB etc.
- Preparation of a Final Environmental and Social Compliance Audit Report.
- The report should include a table which clearly indicates each compliance requirement and an assessment of compliance against that requirement.
- The report may need to include a Corrective Action Plan.

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