Environmental Assessment and Review Framework

Project Number: 52256-003
July 2019

KGZ: Multisector Activities Support Facility

Prepared by the State Agency for Architecture, Construction, Housing and Public Utilities - Department of Drinking Water Supply and Sewerage Development for the Asian Development Bank.

Table of Contents

List of Tables

Abbreviations

ADB	Asian Development Bank
ADB SPS	ADB Safeguard Policy Statement
CAP	corrective action plan
DDWSSD	Department of Drinking Water Supply and Sewerage Development
DSC	design and supervision consultant
EARF	environmental assessment and review framework
EARF	executing agency
EIA	environmental impact assessment
EMoP	environmental monitoring plan
EMP	environmental management plan
HSE	health, safety, and environment
IA	implementing agency
IEE	initial environmental examination
MoF	Ministry of Finance
MPC	maximum permissible concentrations
NES	national environmental specialist
OSHA	Occupational Safety and Health Administration
PIU	Project Implementation Unit
PMO	Project Management Office
REA	rapid environmental assessment
SAACHPU	State Agency for Architecture, Construction, Housing and Public Utilities
SAEPF	State Agency for Environmental Protection and Forestry
SEFF	small expenditure financing facility
SEMP	site-specific environmental management plan
SER	state environmental review
US EPA	United States Environmental Protection Agency
WHO	World Health Organization
WTP	water treatment plant

I. INTRODUCTION

A. Overview

1. Over the years, a significant portion of ADB investment projects in Kyrgyz Republic has experienced significant challenges in terms of delays in project startup and implementation. For the existing ADB portfolio in the Kyrgyz Republic (as of December 2018), the average time between loan approval and first contract award is nearly 20 months due to the need for design work prior to bidding civil works contracts and delays hiring the design and implementation consultants. As a result, projects are rarely completed on schedule, and have experienced procurement, design, and implementation challenges, and cost overruns.

2. The Multisector Activities Small Support Small Expenditure Financing Facility (SEFF), hereafter referred as the Facility, will help alleviate bottlenecks in project startup by financing early design work, advanced procurement actions, and help the government efficiently establish project implementation capacity to ensure project readiness and expedite implementation. The Facility will finance, through subgrants, a series of individual small-value activities which will support and complement larger Asian Development Bank (ADB)-financed projects in the country. In particular, activities under the Facility will improve the efficiency and development impact of ADB financing in the country through focusing on the following outputs:

(i) **Output 1: Project implementation readiness for ensuing projects improved.** Support for the project preparation and design activities for investments that are expected to be financed under one or more ensuing ADB-financed projects. The Naryn rural water supply and sanitation project readiness activity would be an example for this output.

(ii) **Output 2: New technology, innovation or improvement in standards piloted.** Support for the piloting of advanced technologies that reduce life cycle costs and increase durability, improve the efficiency and quality of services, and minimize negative environmental and social impacts. The development of the road asset management would be an example of a new technology activity under the facility.

(iii) **Output 3: Project efficiency and sustainability enhanced.** Support for enhancing the efficiency and sustainability of projects, including for capacity and implementation support for ongoing projects, and rehabilitation and operation and maintenance for completed projects. The first activity of the facility, the Osh water treatment plant (WTP) chlorine neutralization unit, falls under this output.

3. Each activity to be financed under the facility will be linked to a planned, ongoing, or completed ADB-financed project which supports a sector or activity in line with ADB's country partnership strategy (CPS) for the Kyrgyz Republic. The Facility is planned to support activities under the following main sectors: energy; transport; agriculture, natural resources and rural development; education; public sector management; and water supply and other municipal infrastructure.

4. Only the first activity under the Facility has been identified at this stage. The first activity aims to improve the development impact and sustainability of the closed Emergency Assistance for Recovery and Reconstruction project. A key objective of the project was to rebuild damaged dwellings and improve essential public infrastructure suffering from the disturbances. One of subcomponents of the project included the rehabilitation of the Osh-Plotina (Ozgor) Water Treatment Plant (WTP). Although the project completion report concluded that the project was

successful, it raised issues related to standards being employed in the water sector in the Kyrgyz Republic, in relation to current standards. ADB and the government agreed that upgrading the chlorine neutralization units at WTPs was a priority to meet the most recent international standards with the highest safety levels available in the market. Given its urgency, the government requested to upgrade the chlorine neutralization unit at the Osh-Plotina WTP as the first activity under the Facility. The upgraded chlorine neutralization unit will ensure (i) safety during operation stage of the WTP, (ii) neutralization of any chlorine leakage, and (iii) safe and sustainable operations within the existing WTP.

5. As the other activities will be identified during project implementation, this environmental assessment and review framework (EARF) has been prepared to provide guidance on the safeguards screening and impact assessment processes for future activities.

6. The EARF presented here, endorsed by the Ministry of Finance (MOF) of Kyrgyz Republic, provides guidance on subgrant activity selection and the requirements to adequately screen, assess, review, and monitor the environmental impacts of the activities under the Facility. It includes information on the assessment of legal framework and institutional capacity, anticipated environmental impacts, guide on the environmental assessment for activities and any its components, consultation, information disclosure, and grievance redress, institutional responsibilities of various agencies, and monitoring and reporting.

7. This EARF specifically sets out the following:

(i) describes the Multisector Activities Small Support SEFF and its activities
(ii) explains the general anticipated environmental impacts of the potential activities to be financed under the Facility;
(iii) specifies the requirements that will be followed in relation to activity screening and categorization, assessment, and planning, including arrangements for meaningful consultation with affected people and other stakeholders and information disclosure requirements and, where applicable, safeguard criteria that are to be used in selecting activities;
(iv) assesses the adequacy of the borrower's/client's capacity to implement national laws and ADB's requirements and identify needs for capacity building;
(v) specifies implementation procedures, including the institutional arrangements, and capacity development requirements;
(vi) specifies monitoring and reporting requirements; and
(vii) describes the responsibilities of the borrower/client and of ADB in relation to the preparation, implementation, and progress review of safeguard documents of activities under the Facility.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

8. This section of the EARF presents an overview of the policy/legislative framework as well as the environmental assessment guidelines of Kyrgyz Republic, as well as relevant ADB Safeguard Policies applicable to the Facility. Each activity selected under the Facility will be screened, classified, and assessed based on Asian Development Bank's (ADB) Safeguard Policy Statement 2009 (SPS 2009), and environmental legislation of the Kyrgyz Republic, and, if necessary, will be reviewed and approved by ADB and the State Agency for Environmental Protection and Forestry (SAEPF).

A. Country Policies and Administrative Framework

9. The Constitution of the Kyrgyz Republic 2010 is the foundation for the whole normative and legal framework. It stipulates the right of all citizens for an environment favorable for human's life and health and compensation for damage caused to health or property by nature management activities.

10. The legal basis for environmental assessments in KR is formed by the Law on Environmental Protection (1999), the Law on Environmental Impact Assessment (1999), the Instruction on Procedures of State Environmental Expertise (2014), and the Instruction on Environmental Impact Assessment Performance Procedures in the Kyrgyz Republic (2015). These legal documents are supported by normative documents.

11. The Kyrgyz Republic is a party to 12 international conventions on environmental protection, with two related to EIA: Aarhus Convention on Public Participation in Decision-making and Access to Justice in Environmental Matters and Espoo (EIA) Convention for projects that are likely to have significant adverse environmental impacts across boundaries.

1. Institutional framework and legislation for environmental assessment

12. The State Agency for Environmental Protection and Forestry (SAEPF) is the key institution responsible for the establishment and implementation of environmental policy in Kyrgyz Republic. The Department of the State Ecological Expertise and Environmental Management under the SAEPF is responsible for reviewing environmental assessment documents. The State Ecological Expertise procedure is mandatory to any plans or projects with anticipated adverse impact on the environment and if activity is listed in law on EIA. According to the law, no project shall be considered fully operational without positive opinion of the State Ecological Expertise.

13. The EA system in KR is based on two subsystems: (i) OVOS (the Russian acronym for "Environmental Impact Assessment"), and (ii) Ecological Expertise (State Environmental Review, SER). A screening procedure based on screening lists identifies whether a project is the subject to environmental assessment. In case if it is required, an OVOS is conducted by an OVOS Developer hired by a Project Proponent. After presentation of an Environmental Impact Statement (EIS) for public consultations, the EIS is revised based on the feedback from the public. Then the OVOS report and a Statement of Environmental Consequences along with other supporting documentation is submitted to a state expert commission for the SER. The project may be approved, rejected, or sent for reexamination.

14. Public consultation should occur during the conduct of the OVOS and may also be initiated in parallel to the SER as Public Environmental Review (PER). The implementation of any project is permitted only following approval by the SER. The PER is a supplement to the SER and is of a

recommendatory nature. The SER duration depends on the complexity of the project but should not exceed 3 months after submission of all OVOS documents.

2. Other governmental bodies with environment-related responsibilities

15. Other government institutions with a responsibility related to environmental matters are:

- Ministry of Health (safety and health issues);
- Ministry of Emergency Situations (natural hazards), and its subsidiary agency Kyrgyz Hydromet (KHM, or Hydromet, responsible for ambient air and water quality monitoring);
- Ministry of Agriculture (agricultural issues)
- State Committee for Industry, Energy and Subsoil Use (mineral resources, road construction materials, and
- quarries);
- Local administrations (social issues, land use, etc.).

3. Applicable environmental standards

16. Relevant KR environmental standards and procedures include:

Air Quality, Sampling and Analysis

- GN 2.1.6.695-98 “Maximum Permissible Concentrations (MPC) of polluting substances in the atmospheric air of the populated areas”.
- GOST17.2.1.03-84. Environmental Protection. Terms and definitions of pollution control.
- GOST 17.2.4.02-81. Environmental Protection. General requirements for polluting substance detecting methods.
- GOST17.2.3.01-86 Environmental Protection. Atmosphere. Rules to control quality of the air in populated areas.
- GOST17.2.6.01-85. Environmental Protection. Atmosphere. Instruments for air sampling in the populated areas.
- GOST17.2.6.02-85 Environmental Protection. Atmosphere. Automated gas analyzers to control atmospheric pollution.
- RD 52.04.186-89 “Guidelines to control atmospheric pollution”.

Water Quality and Sampling

- SanPiN 2.1.4.002-03. "Drinking water. Hygienic requirements for water quality of the centralized drinking water supply. Quality control ".

Noise Levels, Measurement and Protection

- MSN 2.04-03-2005 "Noise protection"
- SN 2.2.4/2.1.8.562-96 "Noise in the workplace, in residential and public buildings and in the residential area";
- GOST 23337-78 * "Methods of noise measurement in the residential area and in residential and public buildings";
- MUK 4.3.2194-07 "Control of noise level in residential areas, residential and public buildings and premises»
- SNIP 23-03-2003 "Noise protection ".

B. ADB Policies and Requirements

17. **ADB Safeguard Policy Statement.** The ADB Safeguard Policy Statement (SPS 2009) serves as the main guidance for compliance with ADB safeguards requirements. The policy is underpinned by the ADB Operations Manual for the SPS (Section F1, 2010). All projects funded by ADB must comply with the SPS, which establishes an environmental review process to ensure that projects undertaken as part of projects funded by ADB loans are environmentally sound, are designed to operate in line with applicable regulatory requirements, and are not likely to cause significant environment, health, social, or safety hazards. ADB's environmental safeguard requirements are defined in ADB's SPS Appendix 1. A summary of these environmental safeguard principles and requirements are reflected in the following subsections.

18. **International best practice.** ADB's SPS requires that the design, construction and operation of any project funded by ADB will apply pollution prevention and control technologies. The SPS promotes good international practice as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines and Industry-specific EHS Guidelines. These standards provide general and industry-specific examples of Good International Industry Practice (GIIP) and contain performance levels and measures that are acceptable and applicable to projects. When host country regulations differ from these levels and measures, the borrower or client will achieve whichever is more stringent, unless sufficient justification is provided for using country standards.

19. **Categorization.** At an early stage in the project cycle, typically the project concept stage, ADB screens and categorizes proposed projects based on the significance of potential project impacts and risks. A project's environment category is determined by the its most environmentally sensitive component, including direct, indirect, induced, and cumulative impacts. Project screening and categorization are undertaken to:

- reflect the significance of the project's potential environmental impacts;
- identify the type and level of environmental assessment and institutional resources required for the safeguard measures proportionate to the nature, scale, magnitude and sensitivity of the proposed project's potential impacts; and
- determine consultation and disclosure requirements.

20. An initial step in determining the project's environment category is to prepare a Rapid Environmental Assessment (REA) screening checklist, taking into account the type, size, and location of the proposed project. ADB assigns a proposed project to one of the following categories:

- **Category A.** Proposed project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented; impacts may affect an area larger than the sites or facilities subject to physical works. A full-scale environmental impact assessment (EIA) including an EMP is required.
- **Category B**. Proposed project's potential environmental impacts are less adverse and fewer in number than those of category A projects; impacts are site-specific, few if any of them are irreversible, and impacts can be readily addressed through mitigation measures. An IEE including an EMP is required.

- **Category C**. Proposed project is likely to have minimal or no adverse environmental impacts. No EIA or IEE is required although environmental implications need to be reviewed.
- **Category FI**. Proposed project involves the investment of ADB funds to, or through, a financial intermediary.

21. **Environmental Assessment, Management, and Reporting.** The assessment process will be based on current information on the project or activity, including the project description and appropriate environmental and social baseline data. The level of assessment will be proportional to the significance of the project impacts and risks. Based on this assessment, the borrower or client will prepare an environmental management plan (EMP), which will include proposed mitigation measures, environmental monitoring and reporting requirements, implementation schedule, cost arrangements, capacity development and training measures, and performance indicators. The borrower or client will use qualified and experienced experts to prepare the environmental assessment and EMP in accordance with the ADB SPS and this EARF. A detailed guidance on the requirements for environmental assessment specific for this Facility is provided in Section 33 of this EARF.

22. **Information Disclosure and Access to Information.** ADB's Access to Information Policy (AIP) 2018 reflects the ADB's ongoing commitment to transparency, accountability, and participation by stakeholders. The policy contains principles and exceptions to information sharing with external stakeholders, led by a new overarching principle of "clear, timely, and appropriate disclosure". This is applicable to all safeguard documents such as EIAs, IEEs, and the like.

23. **Accountability Mechanism.** The objective of ADB's Accountability Mechanism Policy (2012) is to provide an independent and effective forum for people adversely affected by ADB-assisted projects to voice their concerns and seek solutions to their problems, and to request compliance review of the alleged non-compliance by ADB with its operational policies and procedures that may have caused, or is likely to cause, them direct and material harm. The Accountability Mechanism is a "last resort" mechanism, with the project's Grievance Redress Mechanism (GRM) as the first-line mechanism to receive and facilitate resolution of affected persons' complaints and concerns.

C. Applicable Environmental Standards

24. The ADB's SPS requires application of pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards. The applicable national and international standards for air, noise, and water quality are provided in the following tables. Unless otherwise stated and justified, the SPS states that when host country regulations differ from international standards, the project/activity will achieve whichever is more stringent.

Table 1 Ambient air quality standards

Pollutants	Maximum concentration (mg/m^3) based on national legislation		IFC guidelines (mg/m^3)	
	Value	Concentration averaging period	Value	Concentration averaging period
Dust / Particulate matter	0.15	daily average	0.05	24-hour
Sulphur dioxide (SO_2)	0.5	daily average	0.02	24-hour
Nitrogen dioxide (NO_2)	0.085	daily average	0.2	1 hour

Pollutants	Maximum concentration (mg/m^3) based on national legislation		IFC guidelines (mg/m^3)	
	Value	Concentration averaging period	Value	Concentration averaging period
Carbon monoxide (CO)	3.0	daily average		

Source: GN 2.1.6.1338-03 and IFC EHS Guidelines

Table 2 Noise level guidelines (IFC)

Receptor	One hour L_{Aeq} (dBA)	
	Daytime (07:00 – 22:00)	Nighttime (22:00 – 07:00)
Residential, institutional, educational	55	45
Industrial, commercial	70	70

Source: IFC EHS Guidelines

Table 3 Noise standards (KR national legislation)

Description of activity/ category	Leq (dBA)		Lmax (dBA)	
	Day	Night	Day	Night
Areas directly adjacent to hospitals and sanatorium	45	35	60	50
Areas immediately adjacent dwellings, polyclinics, dispensaries, rest homes, holiday hotels, libraries, schools, etc.	55	45	70	60
Areas immediately adjacent to hospitals and dormitories	60	50	75	65
Recreational areas in hospitals and sanitariums	35		50	
Rest areas at the territories of micro-districts and building estates, rest houses, sanitariums, schools, homes of aged, etc.	45		60	

Source: SN (Sanitary Norms) 2.2.4/2.1.8.562-96 “Noise at workplaces, in dwelling rooms, in public buildings and at the area of residential development

Table 4 Surface water quality standards

Pollutants	Maximum permissible concentration (mg/l)	
	National legislation	WHO Guidelines
Turbidity	Not less than 20cm	-
Petroleum oils	0.3	-
Total suspended solids	0.25	-
Nitrite	0.02 mg N/l	-
Nitrate	9.0 mg N/l	-
Ammonium	0.4 mg N/l	-
Dissolved oxygen	Not less than 4 mg/l	-
HCO_3 Hydrogen carbonate ions	300	-
CO_2	100	-
Flouride	0.05	1.5
CL	300	-
SO_4	100	-
NO_2	0.1	-
NO_3	45	-
Na	200	-
K	50	-
Mg	0.1	-
Ca	180	-
pH	Not less than 6	6

Source: GN 2.1.5.1315-03 with changes GN 2.1.5.2280-07 and SanPiN2.1.5.980-00

III. THE FACILITY AND ITS INDICATIVE ACTIVITIES

25. The Facility will finance a series of small-scale activities covering multiple sectors and linked to planned, ongoing, or completed ADB-financed projects that are in line with the target outputs of the Facility, namely (i) project implementation readiness for ensuing projects; (ii) piloting of new technology, innovation or improvement in standards; and (iii) enhanced project efficiency and sustainability; and in accordance with the following expenditures and criteria:

26. Expenditures:

(i) consulting services that support project preparation and implementation, such as feasibility studies, detailed engineering design, bidding support, safeguard assessments, surveys for impact assessment, and capacity building; and

(ii) non-consulting services, small works, and goods that are associated with an ADB-financed project, such as pilot testing and other preparatory works, O&M service contracts, post-disaster early recovery, and rehabilitation works.

27. Activities supported under the SEFF should adhere to the following criteria:

(i) the total estimated value per activity subgrant/subloan should not exceed $15 million;

(ii) activities are associated with an ADB-financed project, and support its preparation or implementation, or sustainability.

28. The list of indicative activities under the Facility is provided in Table 5 and the summary of implementation arrangements for the Facility is provided in Table 6. The executing agency (EA) for all activities to be financed under the Facility will be the Ministry of Finance (MoF). Each activity will have an individual implementing agency (IA), which will be determined based on the nature of the activity to be supported under the Facility.

29. Currently, only the first activity under the Facility has been confirmed. As a general principle, the final selection of activities or sites will adopt the following criteria:

(i) The siting of any of the activities should not have any significant impacts on the environment and should exclude activities categorized as Environment Category A;

(ii) The activities should not result in any involuntary resettlement;

(iii) The activities should follow all relevant government regulations;

(iv) Activities listed in the prohibited investment activities of ADB SPS 2009, Appendix 5 (ADB Prohibited Investment Activities List) do not qualify for ADB financing.

Table 5 Indicative list of activities under the Facility

	Name	Facility Outputs	Eligible Expenditure	Associated Project/s
1	Osh Plotina WTP - Chlorine Neutralization Unit	Project efficiency and sustainability enhanced	Works	Emergency Assistance for Recovery and Reconstruction
2	Naryn Program Readiness	Program implementation readiness	Consulting	Naryn Rural Water Supply and Sanitation Development Program
3	New Osh-Plotina Water Intake	Project efficiency and sustainability enhanced	Works	Emergency Assistance for Recovery and Reconstruction
4	Kashka-Suu Water Main to Karakol Water Treatment Plant	Project efficiency and sustainability enhanced	Works	Issyk-Kul Sustainable Development Project
5	Rehabilitation of Bazarkorgon Wastewater Treatment Plant	Project efficiency and sustainability enhanced	Works	Emergency Assistance for Recovery and Reconstruction
6	Solid Waste Management in Karakol	Project efficiency and sustainability enhanced	Consulting	Issyk-Kul Sustainable Development Project
7	Development of Kyrgyz Energy Settlement Center	Project efficiency and sustainability enhanced	Consulting	Power Sector Rehabilitation Project
8	Detailed Design of a Transport Project for 2022	Project implementation readiness	Consulting	Road or railway sections to be determined
9	Development of Road Assets Management	New technology, innovation or improvement in standards piloted	Consulting	CAREC Corridors 1 and 3 Connector Road Project
10	Performance-Based Maintenance Contracts of Road Sections	New technology, innovation or improvement in standards piloted	Consulting	CAREC Corridors 1 and 3 Connector Road Project, Phase 2

Table 6 Implementation arrangements for the Facility

Aspects	Arrangements
Facility availability period	October 2019–October 2024
Estimated completion date for the initial activity	December 2020
Management	
(i) Executing agency for facility activities	Ministry of Finance
(ii) Implementing agency(ies) for facility activities	Will be determined for each activity based on the nature and scope of the activity to be supported under the facility.
(iii) Implementation unit(s) for facility activities	Will be determined for each activity subgrant. For the first activity, the IA will establish a project management office comprising 5 staff to support implementation.

A. Scope of the First Activity Subgrant

30. The first activity will be the construction of the Chlorine Neutralization Unit in the Osh-Plotina (Ozgor) Water Treatment Plant (WTP). This activity aims to improve the development impact and sustainability of the closed Emergency Assistance for Recovery and Reconstruction (EARR) project.

31. In April 2010, the Kyrgyz Republic experienced political disturbances resulting in many deaths and injuries, substantial property damage, and a change in government. A key objective of the EARR project was to rebuild damaged dwellings and improve essential public infrastructure suffering from the disturbances. One of subcomponents of the project included rehabilitation of the Osh-Plotina WTP. To ensure sustainability of the previous project, the first activity under the Facility proposes the installation of a Chlorine Neutralization Unit to ensure: (i) safety during operation stage, (ii) neutralization of any chlorine leakage, and (iii) safe and sustainable operations within the existing Osh-Plotina WTP.

32. For this first activity, the implementing agency will be the Department of Drinking Water Supply and Sewerage Development (DDWSSD) under State Agency for Architecture, Construction, Housing and Public Utilities (SAACHPU) and will be responsible for overall activity coordination and management.

IV. GENERAL ANTICIPATED ENVIRONMENTAL IMPACTS

33. The Facility is expected to support activities covering multiple sectors such as energy, transport, agriculture, natural resources, education, public sector management, and water supply and other municipal infrastructure. These activities could have a wide range of impacts during pre-construction, construction, and operation phase.

34. The main feature of the Facility in terms of environmental impacts is the condition that all activities to be financed should exclude activities categorized as Environment Category A per ADB's SPS (2009). In general, the anticipated environmental impacts from the activities are localized, short-term and in most cases reversible, with most of the impacts probably occurring during construction phase of the activity.

35. The following sub-section provides a general list of anticipated impacts likely to occur across multiple sectors and the corresponding options for mitigation. The impacts are presented in terms of activity phase (i.e. pre-construction/construction and operation) and cover the following aspects of the environment:

(i) **Physical environment.** Potential impacts on the air quality, groundwater and surface water quality, and noise and vibration.

(ii) **Biological resources.** Potential impacts on the living landscape— the flora and fauna, and the full range of goods and services produced by the biological resources

(iii) **Socio-economic environment**. Potential impacts on the community such as health and safety, educational and quality of life benefits; and the impacts on population, demographics, land use, and economy.

A. Anticipated environmental impacts during pre-construction/construction phase

Table 7 Anticipated environmental impacts during pre-construction and construction phase

Aspect	Potential Impacts	Mitigation Measures
Soil erosion	Soil erosion due to exposure of soil surfaces to rain and wind during site clearing, earth moving, and excavation activities.	Reduce or prevent erosion by: (i) scheduling to avoid heavy rainfall periods to the extent practical; (ii) contouring and minimizing length and steepness of slopes; (iii) Progressive ground preparation and clearing will be conducted to minimize total area of land that will be disturbed at any one time, where practical; (iv) re-vegetating areas promptly; and (iv) designing channels and ditches for post-construction flows.
Ecological resources	Clearing of existing vegetation may result in loss of associated ecological habitats and their fauna.	No activities shall be located in or with foreseeable adverse impacts on any legally protected area. No activities shall fall in part or in whole within an area supporting high biodiversity value. Any tree losses will be compensated by new plantations based on the ratio required by the national legislation.
Air quality	Air pollution due to construction machinery exhausts and dust generated from construction, demolition, or rehabilitation works	Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content. Implement dust suppression techniques such as regular water sprinkling on the exposed surfaces to reduce dust emissions. Maintenance of construction equipment to maintain its good condition and to avoid, as far as possible, engine idling. Prohibition of the use of machinery or equipment that is a source of excessive pollution (for example, visible exhaust gases). Vehicles at the construction site, if any, should be shut down if it is not in use or remains unattended for more than 3 minutes.
Noise and vibration	Increased noise and vibration levels due to construction, demolition, or rehabilitation works and operation of construction equipment	Preparation of a noise and vibration management plan, indicating frequency of noise monitoring and thresholds to be used. Use of noise control devices such as temporary noise barriers and muffling devices. Limit construction work to daytime hours (i.e. from 08:00am to 19:00AM), limit the transportation of construction materials through the settlements. Nearby community will be informed regarding schedule and duration of construction works. Noise impact monitoring during construction to be carried out in accordance with the provisions of the EMP.
Water quality	Construction works within or near water bodies may cause sedimentation	Reduce or prevent off-site sediment transport through use of settlement ponds, silt fences, and water treatment, and modifying or suspending activities during extreme rainfall and high winds to the extent practical. Segregate or divert clean water runoff to prevent it mixing with water containing high solid

Aspect	Potential Impacts	Mitigation Measures
		content, to minimize the volume of water to be treated prior to release. To minimize disturbance to water bodies, (i) restrict the duration and timing of instream activities to lower low periods, and avoid periods critical to biological cycles of valued flora and fauna; (ii) for in-stream works, using isolation techniques such as berming or diversion during construction to limit the exposure of disturbed sediments to moving water; (iii) consider using trenchless technology for pipeline crossings (e.g. suspended crossings) or installation by directional drilling.
Waste management	Contamination of land and surface water due to improper waste disposal (i.e. hazardous and non-hazardous wastes)	The Contractor will be required to prepare and implement a Waste Management Plan to be approved by the PIU/PMO. It will include, but will not be limited to the following: (i) appropriate temporary waste storage containers will be provided at construction sites and worker camps, if any; (ii) All wastes will be reused or recycled to the maximum extent possible. Wastes will be regularly sorted into what can be reused or recycled. Waste which cannot be reused or recycled will be transported on a regular basis to approved landfill sites; (iii) Fuels, oils and hazardous materials will be stored in a secure bunded area with impermeable floor and weatherproof roof, and good management practices will be adopted to prevent spills of fuels, oils and hazardous materials; (iii) hazardous wastes will be collected and treated by an accredited third-party organization; (iv) there should be no final waste disposal on site; (v) waste incineration at or near the site is strictly prohibited. The Contractor will be held responsible for proper removal and disposal of any significant residual materials, wastes, and contaminated soils that remain on the site after construction.
	Contamination of land and surface water due to sanitary wastewater discharges	Adequate portable or permanent sanitation facilities serving all workers should be provided at all construction sites. Closed sewage treatment system will be provided to treat the effluent.
Traffic management	Disturbance to traffic, businesses and communities during delivery of construction materials and/or equipment	Preparation and implementation of a traffic management plan in coordination with local authorities. Prior to commencing operations, the contractor should inform local authorities about the scope and schedule of construction activities (i.e. delivery of equipment and materials) and expected disruptions. As far as practical, movements of vehicles will be limited within peak hours of traffic, and traffic control staff and/or diversion signaling will be provided as required.
Asbestos containing materials (ACM)	Health hazards due to exposure to ACM	Preparation and implementation of an asbestos management plan, which clearly identifies the locations where the ACM is present, its condition (e.g. friable or non-friable), procedures for monitoring its condition, procedures to

Aspect	Potential Impacts	Mitigation Measures
		access the locations where ACM is present to avoid damage, and training of staff who can potentially come into contact with the material to avoid damage and prevent exposure. Repair or removal and disposal of existing ACM in buildings/structures should only be performed by specially trained personnel.
Community health and safety	Physical hazards to community due to access to construction sites.	Restriction of access to construction sites. Provision of buffer strips or other methods of physical separation and security around the project sites. Install safety and warning signs around construction areas. Siting and safety engineering criteria shall be incorporated to prevent failures. Safety trainings to communities. Strictly enforce vehicle speed limit controls.
Occupational health and safety	Physical hazards to workers, which could be caused by noise and vibration, dust, handling heavy materials and equipment, falling objects, work on slippery surfaces, fire hazards, chemical hazards, and others.	The Contractor will prepare a health, safety, and environment (HSE) plan for the construction works on the basis of the EMP and in compliance with relevant national laws and regulations. The HSE Plan will be submitted to the Engineer for approval.
	Risk of poor-quality housing and hygiene standards resulting in injury or sickness of workers	Contactor to ensure that workers accommodation and rights are in line with the international standards (i.e. IFC, ILO, or FIDIC Pink Book requirements). Contract documentation to include requirement that worker accommodation be in line with good practice.
Socio-economic	Employment opportunities and benefits of employees and its multiplier effect or potential livelihood/ business opportunities	Prioritize hiring of qualified local workers. Conduct regular community consultation and coordinate with local government with regards to community complaints through regular dialogues.
Rehabilitation or replacement of existing facilities (i.e culverts, roads, etc.)	Potential damage to existing facilities during rehabilitation works.	Contractor(s) will assess construction location(s) in advance for potential disruption to services and identify risks prior to starting construction. Any damage or hindrance/disadvantage to local businesses and communities caused by the premature removal or insufficient replacement of public utilities is subject to full compensation, at the full liability of the contractor who caused the problem.
Historical or archaeological sites	Damage or disturbance to historical or archaeological sites due to construction or rehabilitation works	Any archaeological finds during works must require stop-work and use of ‘Chance Find’ procedures.

B. Anticipated environmental impacts during operation phase

Table 8 Anticipated environmental impacts during operation phase

Aspect	Potential Impacts	Mitigation Measures
Air quality	Air pollution due to vehicle and machinery exhausts	Maintenance of vehicles and equipment to maintain its good condition and to avoid, as far as possible, engine idling.
Water supply (i.e. water intake facilities)	Water competition due to over extraction	The project design will ensure that water will be equally distributed to all the users in a controlled manner. Extraction of water will be limited to the design threshold. The impact from water extraction should be localized to an already modified portion of the river and should not affect other users.
Public safety and traffic management	Safety hazard and disturbance to traffic, businesses and communities	Implementation of speed limits and installation of warning signs and signal lights along the road to protect people in the community.
Waste management	Contamination of land and surface water due to improper waste disposal (i.e. hazardous and non-hazardous wastes)	Preparation and implementation of a Waste Management Plan. It will include but will not be limited to the following: (i) appropriate waste storage containers will be provided; (ii) All wastes will be reused or recycled to the maximum extent possible. Wastes will be regularly sorted into what can be reused or recycled. Waste which cannot be reused or recycled will be transported on a regular basis to approved landfill sites; (iii) Fuels, oils and hazardous materials will be stored in a secure bunded area with impermeable floor and weatherproof roof, and good management practices will be adopted to prevent spills of fuels, oils and hazardous materials; (iii) hazardous wastes will be collected and treated by an accredited third-party organization; (iv) there should be no final waste disposal on site; (v) waste incineration at or near the site is strictly prohibited.
Hazardous materials handling	Contamination of land and surface water due to accidental spillage or leakage of hazardous materials	Preparation and implementation of Hazardous Materials Handling Procedure. Chemicals to be used will be properly labeled, stored and managed. The storage area would be located away from the waterways, bunded and lined with impermeable materials. An emergency spill prevention and response plan shall be developed to address significant spill scenarios and magnitude of releases. Proper drainage shall be provided for fuel storage areas, and bunds will also be located in fuel and storage areas to prevent accidental spillage or leakage of chemicals. Workers shall be trained in proper handling of equipment and implementation of good housekeeping practices.
Socio-economic	Employment opportunities and benefits of employees and its multiplier effect or potential livelihood/business opportunities	Prioritize hiring of qualified local workers. Conduct regular community consultation and coordinate with local government with regards to community complaints through regular dialogues.

V. ENVIRONMENTAL ASSESSMENT FOR SUBGRANT ACTIVITES

36. Although there is an indicative list of projects to be financed under the Facility, only the first activity has been confirmed and the exact coverage of the succeeding activities and its location are yet to be determined. The following general criteria will be adopted for the selection of the succeeding activities:

(i) The siting of all the activities should not have any significant impacts on the environment and trigger ADB's Environmental Category A;

(ii) The activities should not result in any involuntary resettlement;

(iii) The subprojects should only involve activities that follow all the government regulations;

(iv) The facility will not finance activities listed in the ADB Prohibited Investment Activities List, Appendix 5 of the SPS 2009.

37. A final check on conformity with the selection criteria will be the submission of the activity's categorization form for ADB's clearance. Any activity, which does not meet the general criteria listed above, may be rejected.

38. The following procedures are to be followed in the environmental screening, assessment, and implementation of all activities to be financed under the Facility. The environmental assessment for all activities should follow both the ADB SPS and the Kyrgyz Republic's national EIA process. The specific roles and responsibilities of IA and ADB in carrying out the process of screening and assessment of activities under the Facility is provided in detail in Section VII of this report. ADB will provide assistance to the IA and its respective PIUs/PMOs in carrying out its responsibilities and provide capacity building in terms of ADB's SPS requirements as required.

A. Environmental Screening and Classification

39. All subgrant activities will be screened to determine its environment category. Safeguard categories will be assigned for each subgrant activity to be supported under the Facility. Categorization is to be based on ADB's Rapid Environmental Assessment (REA) Checklists. Appendix 1 contains the REA Checklists applicable for the indicative sectors covered by the Facility. The category will be determined by the category of the most environmentally sensitive component of the activity, including direct, indirect, induced, and cumulative impacts.

40. Considering the type of possible activity works and the fact that the works will be implemented on existing ADB projects, the activities could be categorized as only Environment Category B or Category C. Therefore, only a review of environmental implications is required for activities classified as Category C. For activities classified as Category B, an IEE needs to be undertaken.

41. The IA, through its PIU or PMO, will be responsible for the initial screening of the succeeding activities and will ensure that the proposed activities conform with the Facility's criteria and ADB's requirements. The respective PIU/PMO will prepare the environmental screening checklists for each succeeding activity under the Facility and will submit it for review and approval of ADB. ADB, in turn, will review and endorse the categorization of the activity.

B. Environmental Assessments and Environmental Management Plans

42. The basis of ADB's safeguard policy is to ensure that no person is left worse off after the construction and operation of the project than they were before it. Undertaking the environmental assessment will ensure that at an early stage of the activity, all potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources are identified and corresponding mitigation measures are in place.

43. The relevant PIU/PMO, with the support of consultants, will conduct the assessment and prepare the required IEE. The assessment and preparation of the report (i.e. IEE and EMP) is required for each activity under the Facility and shall be in accordance with ADB Safeguard Requirements 1: Environment. Environmental impacts and risks will be analyzed for all relevant stages of the project cycle, including pre-construction, construction, and operation phases.

44. The process of impact assessment requires two main sets of information – the specific sub-activities that may cause an impact and the information on the valued environment receptors (VERs). Identifying sub-activities which may significantly affect the environment should be carried out in a systematic manner. Site-specific information, including environment baseline on physical, biological, socio-economic and physical cultural resources needs to be presented for all activities. The information should be collected through site visits and surveys within the activity's area of influence, as well as available sources of secondary information. The data required to conduct the assessment needs to relate to the activity being assessed and the activity's area of influence. An effective IA process requires good information on which to base objective assessments.

45. For each activity, the assessment of sub-activity impacts and risks on the physical, biological, and socio-economic resources will need to be undertaken. Once potential impacts are identified, these should be assessed in terms of the potential severity of loss (consequence) and the probability of occurrence (likelihood). For each impact, corresponding mitigation measures need to be identified in order to reduce the consequence or severity of the potential impact. A preliminary list of potential impacts during pre-construction/construction and operations phase applicable to multiple sectors is provided in Table 7 and Table 6, respectively.

46. An environmental management plan (EMP), will also need to be developed as part of an IEE. This shall describe the environmental management measures that will be carried out to mitigate the identified negative impacts or enhance the positive impacts during implementation, and the environmental monitoring to be conducted to ensure that mitigation is provided and is effective in reducing impacts. The EMP shall outline the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. EMPs are mandatory inclusions in contract documents for construction activities.

47. The PIU/PMO, with the support of the consultants, will be responsible for the internal quality control of the IEE and EMP prior to submission to ADB for review and approval. After completing all investigations and public consultation processes required for the IEE, the EA (MoF) will endorse the draft IEE prepared by the PIU and the consultants and submit it to ADB in digital form for review and approval. Upon receipt of the IEE, ADB will review and approve the IEE, and endorse the disclosure of the final IEE on ADB and the Facility's website.

48. Where unanticipated environmental impacts become apparent during the implementation of activities, the PIU/PMO shall update the environmental assessment and EMP or prepare a new

environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address the impacts.

VI. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM

49. For activities that are deemed to have adverse environmental and social impacts (in this case, projects classified as Category B), it is important that aspects relating to consultation, information disclosure and grievance redress mechanisms be thoroughly considered and reflected in the IEE. The relevant IA for each activity, through its Project Implementation Unit (PIU) or Project Management Office (PMO), has the responsibility to inform the activity's affected people and other stakeholders of the nature of the proposed activity and the likely environmental and social impacts, as well as allow them to access general information about the Facility and its activities. In addition, should the affected people or stakeholders have any grievances, they have the right to lodge complaints through a grievance redress process established for each activity under the Facility.

A. Public Consultation

50. The public consultation will be based on the following principles:

(i) Public consultation should be carried out during the early stages of an activity (i.e. project preparation stage) and should be continued throughout the project cycle (i.e. implementation stage);

(ii) Timely disclosure of relevant information in a comprehensible and readily accessible to affected people format;

(iii) Ensuring the absence of intimidation or coercion during public consultation;

(iv) Gender inclusive and responsive with focus on disadvantaged and vulnerable groups, and

(v) Enabling the integration of all relevant views of affected people and stakeholders into decision-making.

B. Information Disclosure

51. The Ministry of Finance and ADB agree that in disclosing information for each of the activity under the Facility:

(i) The respective IA for each activity, through its PIU/PMO, is responsible for ensuring that all environmental assessment documentation, including the environmental due diligence and monitoring reports, are properly and systematically kept as part of the activity records;

(ii) All environmental safeguard documents are subject to public disclosure, and therefore be made available to public;

(iii) Any IEE must be reviewed by ADB before it is disclosed to the public; and,

(iv) The IA, through its PIU/PMO, will ensure that meaningful public consultations are undertaken during the assessment process for the subgrant activities.

C. Grievance Redress Mechanism

52. In order to receive and facilitate the resolution of affected peoples' concerns, complaints, and grievances about the project's/activity's environmental and social performance, a Grievance Redress Mechanism (GRM) will be established for each of the activity under the Facility.

53. The concerned IA, through its PIU/PMO, will be responsible for establishing and implementing the GRM in accordance with the IEE and EMP. The PIU/PMO will promptly inform ADB of the occurrence of any risks or impacts, with detailed description of the event and proposed corrective action plan (CAP) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the IEE of the activity. The PIU/PMO will report any actual or potential breach of compliance with the measures and requirements set forth in the IEE and EMP promptly after becoming aware of the breach.

54. When and where the need arises, the mechanism will be used for addressing any complaints that arise during the implementation of subgrant activities identified under the Facility. The IA through its PIU/PMO will inform the concerned community members of the mechanism with assistance from local leaders, and community representatives. The GRM will be fleshed out after discussion with community members and other stakeholders. Actual responsibilities will be assigned after the consultation process has identified relevant members from the local government structure, or communities or community pressure groups, if and where they exist.

55. Each PIU/PMO will designate Grievance Focal Points (GFPs), who will be the designated personnel at various levels responsible for receiving complaints, resolving it or ensuring that it reaches the right people where it may be resolved. These designated GFPs will be identified after consultations have been held with communities and stakeholders, these could be community leaders, local administrations, or environmental and social officers of the contractor or construction supervision consultant. Affected people may lodge their complaint for registration through a personal visit, call or letter to any of the GFPs.

56. Each focal Point will maintain a record of the complaints received and will follow-up the complaint's rapid resolution. The respective PIUs/PMOs will enter and maintain a complete record of all Environmental complaints received alongside the record-book that serves as the social complaints register. The PIU/PMO will also keep track of the status of complaints and will ensure that these are addressed in a timely manner.

VII. INSTITUTIONAL ARRANGEMENT AND RESPONSIBILITIES

57. The MoF will be the EA and each activity will have a different IA, which will be determined for each activity based on the nature of the activity to be supported under the Facility.

58. Each IA will establish a PIU or PMO, which will be responsible for the overall planning, management, implementation, monitoring and reporting of activities, including those related to environmental safeguards, which shall include the following:

- Preparation of environmental screening checklists;
- Oversight or preparation of the IEE report (for category B), including an EMP that includes sub-plans for each of the work areas;
- Ensuring meaningful public consultations are conducted as per requirements of the ADB SPS;
- Ensuring that all regulatory clearances and ADB safeguards requirements (i.e. preparation of SEMP) are obtained before starting civil works for the activity;
- Appointment of an environment specialist to monitor the implementation of the environmental management measures required for each activity;
- Provision of awareness training in environmental management for all employees;
- Supervision and monitoring of the implementation of EMPs and other commitments related to safeguards, including development of CAPs as needed and ensuring that these CAPs are undertaken in a timely manner;
- Preparation of environmental monitoring reports every six months, or as stated in the legal agreement, to be delivered to the ADB and the PIUs;

59. ADB will be responsible to ensure that the Facility and all subgrant activities comply with the ADB SPS. More specifically, ADB will be responsible for the following:

- Review and approval of environmental categorization and IEEs (including EMPs);
- Conduct site visits for activities with unanticipated adverse environmental or social impacts and monitor the implementation of the EMP and due diligence as part of overall project review mission;
- Conduct supervision missions for Category B activities;
- Review the semi-annual monitoring reports to ensure that adverse impacts and risks are mitigated as planned and that necessary corrective actions have been identified and are being implemented;
- Provide assistance to the IA/PIUs, as required, in carrying out its responsibilities
- Conduct capacity building or trainings to IA/PIUs on safeguard requirements of ADB based on its SPS 2009, as needed.

60. The Facility's costs have incorporated budget and resource needed to (i) implement the environmental review and screening procedure, (ii) undertake the environmental assessment studies for the activities, (iii) monitor the implementation of EMPs, and (iv) undertake environmental mitigation measures as required.

VIII. MONITORING AND REPORTING

61. ADB reviews and supervises project performance against the commitments of the borrower/client as described in the legal agreements. The extent of monitoring activities, including the scope and periodicity, will be commensurate with the project's risks and impacts. Based on the ADB's SPS, category B projects are required to prepare and submit periodic monitoring reports for environment as deemed appropriate by ADB. Typically, this would mean a semi-annual monitoring report submitted to ADB, unless otherwise stated in the legal agreements.

62. The respective PIUs/PMOs for each activity under the Facility are required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to prepare and submit periodic monitoring reports on the implementation performance of the activities under the Facility. ADB will require the PIUs/PMOs to:

(i) Establish and maintain procedures to monitor the progress of implementation of EMPs;

(ii) Verify the compliance with environmental measures and their progress toward intended outcomes;

(iii) Document and disclose monitoring results and identify necessary corrective and preventive actions (i.e. CAP) in the periodic monitoring reports;

(iv) Follow-up on these actions to ensure progress toward the desired outcomes;

(v) Retain qualified and experienced external experts or qualified NGOs to verify monitoring information for projects with significant impacts and risks; and

(vi) Submit periodic monitoring reports on safeguard measures as agreed with ADB.

63. ADB will also carry out the following monitoring actions to supervise the implementation of activities:

(i) Conduct periodic site visits for projects with adverse environmental or social impacts;

(ii) Conduct supervision missions with detailed review by ADB's safeguard specialists/officers or consultants for activities with significant adverse social or environmental impacts;

(iii) Review the periodic monitoring reports submitted by the PIUs to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;

(iv) Work with PIUs/PMOs to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to reestablish compliance as appropriate; and

(v) Prepare project completion reports that assesses whether the objective and desired outcomes of the EMPs have been achieved.

Appendix 1 Rapid Environmental Assessment Checklists

Rapid Environmental Assessment (REA) Checklist
URBAN DEVELOPMENT

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by the Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area…			
▪ 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.			

Screening Questions	Yes	No	Remarks
▪ 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?			
▪ 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?			
▪ water depletion and/or degradation?			
▪ overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?			
▪ contamination of surface and ground waters due to improper waste disposal?			

Screening Questions	Yes	No	Remarks
▪ 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?			

Rapid Environmental Assessment (REA) Checklist
Water Supply

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by the Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area…			
▪ 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…			

Screening Questions	Yes	No	Remarks
▪ pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?			
▪ impairment of historical/cultural monuments/areas and loss/damage to these sites?			
▪ hazard of land subsidence caused by excessive ground water pumping?			
▪ social conflicts arising from displacement of communities?			
▪ conflicts in abstraction of raw water for water supply with other beneficial water uses for surface and ground waters?			
▪ unsatisfactory raw water supply (e.g. excessive pathogens or mineral constituents)?			
▪ delivery of unsafe water to distribution system?			
▪ inadequate protection of intake works or wells, leading to pollution of water supply?			
▪ over pumping of ground water, leading to salinization and ground subsidence?			
▪ excessive algal growth in storage reservoir?			
▪ increase in production of sewage beyond capabilities of community facilities?			
▪ inadequate disposal of sludge from water treatment plants?			
▪ inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances and protect facilities?			
▪ impairments associated with transmission lines and access roads?			
▪ health hazards arising from inadequate design of facilities for receiving, storing, and handling of chlorine and other hazardous chemicals.			
▪ health and safety hazards to workers from handling and management of chlorine used for disinfection, other contaminants, and biological and physical hazards during project construction and operation?			
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ noise and dust from construction activities?			

Screening Questions	Yes	No	Remarks
▪ increased road traffic due to interference of construction activities?			
▪ continuing soil erosion/silt runoff from construction operations?			
▪ delivery of unsafe water due to poor O&M treatment processes (especially mud accumulations in filters) and inadequate chlorination due to lack of adequate monitoring of chlorine residuals in distribution systems?			
▪ delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?			
▪ accidental leakage of chlorine gas?			
▪ excessive abstraction of water affecting downstream water users?			
▪ competing uses of water?			
▪ increased sewage flow due to increased water supply			
▪ increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant			
▪ 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?			

Rapid Environmental Assessment (REA) Checklist
Sewage Treatment

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by the Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
B. 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			
A. Potential Environmental Impacts Will the Project cause…			
▪ impairment of historical/cultural monuments/areas and loss/damage to these sites?			

Screening Questions	Yes	No	Remarks
▪ interference with other utilities and blocking of access to buildings; nuisance to neighboring areas due to noise, smell, and influx of insects, rodents, etc.?			
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ impairment of downstream water quality due to inadequate sewage treatment or release of untreated sewage?			
▪ overflows and flooding of neighboring properties with raw sewage?			
▪ environmental pollution due to inadequate sludge disposal or industrial waste discharges illegally disposed in sewers?			
▪ noise and vibration due to blasting and other civil works?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, and biological hazards during project construction and operation?			
▪ discharge of hazardous materials into sewers, resulting in damage to sewer system and danger to workers?			
▪ inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances, and protect facilities?			
▪ road blocking and temporary flooding due to land excavation during the 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 overflow flooding, and groundwater pollution due to failure of sewerage system?			
▪ deterioration of water quality due to inadequate sludge disposal or direct discharge of untreated sewage water?			
▪ contamination of surface and ground waters due to sludge disposal on land?			

Screening Questions	Yes	No	Remarks
▪ health and safety hazards to workers from toxic gases and hazardous materials which maybe contained in confined areas, sewage flow and exposure to pathogens in untreated sewage and unstabilized sludge?			
▪ large population increase during project construction and operation that causes increased burden on social infrastructure (such as sanitation system)?			
▪ social conflicts between construction workers from other areas and community workers?			
▪ 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?			

Rapid Environmental Assessment (REA) Checklist
Roads and Highways

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES), for endorsement by Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
B. Potential Environmental Impacts Will the Project cause…			
▪ encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?			
▪ encroachment on precious ecology (e.g. sensitive or protected areas)?			

Screening Questions	Yes	No	Remarks
▪ alteration of surface water hydrology of waterways crossed by roads, 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?			
▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?			
▪ noise and vibration due to blasting and other civil works?			
▪ dislocation or involuntary resettlement of people?			
▪ dislocation and compulsory resettlement of people living in right-of-way?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			
▪ hazardous driving conditions where construction interferes with pre-existing roads?			
▪ 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?			
▪ accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?			
▪ increased noise and air pollution resulting from traffic volume?			
▪ increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?			
▪ social conflicts if workers from other regions or countries are hired?			

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)?			
▪ 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.			

Rapid Environmental Assessment (REA) Checklist
Buildings

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following 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?			

Screening Questions	Yes	No	Remarks
▪ 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?			
▪ 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?			

Screening Questions	Yes	No	Remarks
▪ 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?			