

# Environmental Assessment and Review Framework

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## Nepal: Urban Resilience and Livability Improvement Project

Prepared by the Department of Urban Development and Building Construction, Government of Nepal for the Asian Development Bank.

## **CURRENCY EQUIVALENTS**

(as of 25 July 2023)

Currency unit	-	Nepalese rupee (NPR)
NPR 1.00	=	\$ 0.02
\$ 1.00	=	NPR 130.92

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
BES	–	Brief environment study
DOA	–	Department of archaeology
DSC	–	design and supervision consultant
DUDBC	–	Department of urban development and building construction
EARF	–	environmental assessment and review framework
EIA	–	environmental impact assessment
EMP	–	environmental management plan
EPA	–	Environment protection Act
EPR	–	Environment protection Rules
GRC	–	grievance redress committee
GRM	–	grievance redress Mechanism
IEE	–	initial environmental examination
ISCPC	-	Institutional Strengthening and Community Participation Consultant
O&M	–	operations and maintenance
PCO	–	project coordination office
PIU	–	Project implementation unit
PMCDC	–	Project management and capacity development consultant
REA	–	rapid environmental assessment
SDC	–	Supervision and design consultant
SPS	–	safeguard policy statement
ToR	–	terms of reference
URLIP	–	Urban Resilience and Livability Improvement Project

## **NOTE**

In this report, "\$" refers to United States dollar.

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## I. INTRODUCTION

### A. Urban Resilience and Livability Improvement Project

1. The project is aligned with the following impact: inclusive economic growth and improved living standards. The project will have the following outcome: improved resilience, livability and sustainability of urban service delivery by project municipalities. The project will support the following three outputs.

2. **Output 1: Municipal infrastructure for resilience improved.** Investments will use an integrated approach by ensuring a well-coordinated urban infrastructure system and, where feasible, employing green solutions to reduce inundation, improve mobility, and promote nonmotorized transport through cycle lanes and footpaths. Together, these investments aim to improve the livability of residents, support the sustainable growth of tourism, and enhance local economies. The project will (a) construct or rehabilitate 150 kilometers (km) of stormwater drains; (b) reconstruct 100 km of the urban roads with at least 45 km of footpaths with old age, women, children, and people with disabilities responsive features and cycle lane to promote non-motorized transport, and (c) construct cold storage in Tilottama to ensure food security during climate and disaster events.

3. **Output 2: Tourism assets revitalized, and management improved.** The project adopts a combination of strategic planning, infrastructure development and customer service to support natural, cultural, and heritage-based tourism by enacting protective zoning around natural and heritage sites, expanding tourism activities and promoting visitor's universal access and positive experience.<sup>1</sup> Output 2 will support to: (a) prepare and execute seven natural and heritage management plans through gender equality and social (GESI)-responsive, participatory approaches, (b) improve seven cultural and natural heritage sites with GESI-responsive tourism infrastructure and recreation amenities such as cycle route connecting seven lakes of Pokhara municipality, Bindabasini area street, Phewa organic trail, Pokhara Santiban Batik (Forest) conservation, Janakpur Ratnasagar, Lumbini global park, and Panchase eco-development, (c) improve 150,000 square meters of green spaces – Siddharthnagar Dandha River Corridor and greening initiatives of public spaces in all municipalities – with gender and climate-resilient inclusive design feature, and (d) ensure at least 30% of the socio-economic development program spend on socioeconomic infrastructure and activities related to tourism and GESI. The project will construct at least seven GESI-friendly public toilets in cultural and natural heritage sites and support Lumbini Sarus Crane Conservation and Biodiversity Awareness.

4. **Output 3: Capacity of communities, municipalities, province, and Department of Urban Development and Building Construction strengthened.** The project supports implementing prioritized reforms, municipalities' digital transformation, institutional strengthening and capacity building actions. Key actions of output 3 include increasing own source revenue by implementing a comprehensive financial management improvement plan (CFMIP) – an institutional reform measure for revenue enhancement (broadening own source revenue coverage, digital tax billing and collection, and tax administration), budgeting procedure for better expenditure management, internal and external audit, procurement and asset management, and financial management procedures. The second action is to address carbon emissions and climate and disaster-related risks by preparing decarbonization and risk-sensitive urban plans and enforcing development control<sup>2</sup>, preparing seven heat action plans to ensure well-coordinated response

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<sup>1</sup> Cultural, natural, and heritage assets under municipalities' jurisdiction.

<sup>2</sup> Including seismic microzoning and multi-hazard disaster risk assessment of Pokhara.

actions during an extreme heat event tailored to high-risk groups, establishing Pokhara municipal emergency operation center, installing an electronic building permit system that factors in climate and disaster-risk zoning and will also support the issuance of digital tax bills. The third action is strengthening institutions and capacity by establishing and equipping O&M units in each municipality, maintaining a robust database of public assets, including infrastructure, utilities, cultural and natural heritage sites, and public land, constructing an energy-efficient and disaster-resilient municipal office building for Lumbini Sanskrithik municipality, conducting training and workshop for staff, including eligible women staff and female-elected representatives of cities, provinces, and DUDBC, on municipal finance, natural ecosystems, decarbonization, and urban resilience planning, and support internship, skill improvement in traditional and local art, and tourist guide certification programs for women and disadvantage group implemented.

## **B. Purpose of EARF**

5. This EARF applies to Output 2 components of the URLIP. While the proposed project components to be implemented under Output 1 are prepared during the loan processing to conduct safeguards due diligence, the Output 2 components (Tourism related) will be prepared only after the Natural and Cultural Heritage Management Plans formulated during project implementation. Therefore, following ADB Safeguard Policy Statement (SPS, 2009) requirements, this environmental assessment and review framework (EARF) is prepared in lieu of safeguards plans for output 2 components, which will be finalized after the ADB Board approval. Safeguards plans, as required, will be prepared by executing agency following EARF and will be cleared and disclosed by ADB before the start of bidding process.

6. Thus, this EARF provides guidance on safeguard screening, assessment, institutional arrangements, and processes to be followed for components of the project, where design takes place after Board approval. The subproject selection will be in accordance with the environmental subproject selection criteria outlined in this EARF. The borrower will agree with ADB on screening and categorization, environmental assessment, preparation and implementation, monitoring, and updating existing safeguard plans for the subprojects to facilitate compliance with the requirements specified in ADB SPS, 2009 and government laws.

7. This EARF (i) describes the project output 2 and its components; (ii) explains the general anticipated environmental impacts and mitigation measures for the output 2 subprojects which will be designed under the project after ADB Board approval; (iii) specifies the requirements that will be followed in relation to screening and categorization, assessment, and planning, including arrangements for meaningful consultation with affected people and other stakeholders and information disclosure requirements; (iv) assesses the capability of the project proponents to implement national laws and ADB's requirements, and identifies needs for capacity building; (v) specifies implementation procedures, institutional arrangements, and capacity development requirements; and (vi) specifies monitoring and reporting requirements.

## **C. Environmental Categorization**

8. The project is classified as Category B for environment per ADB SPS, 2009. During the project preparation, environmental assessment for seven subprojects in seven project towns has been conducted and three initial environmental examination reports (IEEs) including with environmental management plans (EMPs) were prepared. The IEEs concluded that the project is unlikely to have significant adverse impacts that are diverse, irreversible, or unprecedented. The potential adverse environmental impacts are of small-scale, short-term, and localized and are



mainly related to the construction period, which can be minimized/mitigated by the appropriate mitigating measures and environmentally sound engineering and construction practices.

9. Components proposed under Output 2 are tourism assets and infrastructure oriented, focusing on existing natural and cultural heritage sites. During the preparation, project team conducted reconnaissance visits to the likely component sites, consulted with the stakeholders. Output 2 will exclude any components located in environmentally or culturally protected / sensitive areas or potentially have significant adverse impacts. Thus, any subproject or component that will reclassify the project to environment Category A per ADB SPS, 2009 will not be considered for implementation under URLIP, and accordingly the subproject exclusion and selection criteria is set-out and agreed with the government and is also reflected in the project administration manual (PAM).

## II. PROPOSED PROJECT COVERAGE AND COMPONENTS UNDER OUTPUT 2

10. Proposed output 2 components to be implemented in 7 project towns of Tilottama, Siddharthnagar, Sainamaina, Lumbini Sanskritik, Devdaha, Janakpur and Pokhara. Location of project towns is shown Figure 1. Project towns have high tourism potential. The five municipalities (Devdaha, Lumbini Sanskritik, Sainamaina, Siddharthnagar, and Tilottama) in Lumbini province are within the Greater Lumbini Buddhist Circuit, in the western Terai region of Nepal. Situated in the foothills of the Himalayas, Pokhara is a gateway for trekking in the Annapurna circuit, and has its unique biodiversity and ecosystems centered around a cluster of nine lakes, a Ramsar wetland. Janakpur has cultural and religious significance with a number of temples.

**Table 1: Proposed Components and Infrastructure in Output 2 of URLIP**

Town	Subproject	Project Components (List as per discussions with Municipality Officials)
Janakpur	<ul style="list-style-type: none"> <li>Revitalization of heritage and cultural Sites</li> </ul>	<ul style="list-style-type: none"> <li>Improvements to ponds</li> <li>Water quality improvement</li> <li>Construction of embankment around the pond</li> <li>Creation of walking path etc.</li> <li>General greening of the area</li> <li>Provision of water and sanitation facilities</li> <li>Provision of resting benches</li> <li>Provision of parking areas</li> </ul>
Saina Maina	Cultural, natural and green public spaces development	<ul style="list-style-type: none"> <li>Water quality improvement of Panbari Wetland</li> <li>Creation of walking path and wooden bridges</li> <li>General greening of the area</li> </ul>
Devdaha	Green public spaces development	No projects defined
Tilottama	Green public space improvements	No projects defined
Siddharthnagar	Danda river corridor project	<ul style="list-style-type: none"> <li>Walking trail along the river corridor</li> <li>Strengthening of embankment – (minor civil works)</li> <li>Creating of boating and other recreation activities;</li> <li>Development of parking spaces,</li> <li>Water quality improvement</li> </ul>
Lumbini Sanskritik	Global park	<ul style="list-style-type: none"> <li>Walking trails across the park</li> <li>Build replica of attractions from around the world – eiffel tower, statue of liberty etc.</li> </ul>

Town	Subproject	Project Components (List as per discussions with Municipality Officials)
		<ul style="list-style-type: none"> <li>• Nature resorts;</li> <li>• Restaurant</li> </ul>
Pokhara	<ul style="list-style-type: none"> <li>• Phewa lake organic trail</li> </ul>	<ul style="list-style-type: none"> <li>• water and sanitation facilities enroute.</li> </ul>
	<ul style="list-style-type: none"> <li>• Panchase eco-development</li> </ul>	<ul style="list-style-type: none"> <li>• Panchase Banjyang to the temple (Approx. 4 kms.) walking stone steps</li> <li>• Upgrading of the stone stepped-pathway up to the Temple</li> <li>• Water and sanitation facilities enroute</li> <li>• Provision of information board setup</li> </ul>
	<ul style="list-style-type: none"> <li>• Pokhara: Green Pokhara- greening dense urban areas, Botanical Garden (Shanti Ban Vatika), KI Sing Park and Bridge area improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of attractions for children like animals figures, games etc. At the botanical garden</li> <li>• Provision of water and sanitation facilities at the botanical garden</li> <li>• Glass bridge across the seti river gorge at the periphery of the botanical garden</li> <li>• Bridge area improvement at the ki singh park</li> <li>• Greening dense urban areas</li> </ul>
	<ul style="list-style-type: none"> <li>• Pokhara – bindabasini area street development</li> </ul>	<ul style="list-style-type: none"> <li>• General improvements to the road from Srijana chowk to Bhairav tole</li> <li>• Creation of walking pathways along the roads housing the heritage buildings</li> <li>• Provide information boards on the heritage buildings.</li> <li>• Work on policies surrounding the heritage conservation concepts.</li> </ul>
	<ul style="list-style-type: none"> <li>• Pokhara inter-lake cycle route development</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of international standard information boards along the bike path;</li> <li>• Provision of water and sanitation facilities along the bike track;</li> <li>• Provision of restaurant and viewing towers at certain locations along the bike track</li> <li>• Provision of resting benches along the bike track</li> </ul>
Project towns	<ul style="list-style-type: none"> <li>• Public amenities</li> </ul>	<ul style="list-style-type: none"> <li>• Public / individual toilets with septic tanks;</li> <li>• Walkways / footpath in urban poor neighborhoods</li> </ul>

### III. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

#### A. ADB Safeguard Policy Statement

11. ADB SPS, 2009 requires borrowers to meet a set of requirements (Safeguards Requirements 1) when delivering environmental safeguards for projects supported by ADB. The objectives are to ensure the environmental soundness and sustainability of projects, and to support the integration of environmental considerations into the project decision-making process. Environmental safeguards are triggered if a project is likely to have potential environmental risks and impacts. Following are the eleven policy ADB SPS, 2009 principles related to environmental safeguards:

- (i) Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment so that appropriate studies are undertaken commensurate with the significance of potential impacts and risks.
- (ii) Conduct an environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the project's area of influence. Assess potential transboundary and global impacts, including climate change. Use strategic environmental assessment where appropriate.
- (iii) Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Also consider the no project alternative.
- (iv) Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to third parties, and the polluter pays principle.
- (v) Carry out meaningful consultation with affected people and facilitate their informed participation. Ensure women's participation in consultation. Involve stakeholders, including affected people and concerned nongovernment organizations, early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account. Continue consultations with stakeholders throughout project implementation as necessary to address issues related to environmental assessment. Establish a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.
- (vi) Disclose a draft environmental assessment (including the EMP) in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final environmental assessment, and its updates if any, to affected people and other stakeholders.
- (vii) Implement the EMP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions, and disclose monitoring reports.
- (viii) Do not implement project activities in areas of critical habitats, unless (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, (ii) there is no reduction in the population of any recognized endangered or critically endangered species, and (iii) any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area. In an area of natural habitats, there must be no significant conversion or degradation, unless (i) alternatives are not available, (ii) the overall benefits from the project substantially outweigh the environmental costs, and (iii)

any conversion or degradation is appropriately mitigated. Use a precautionary approach to the use, development, and management of renewable natural resources.

- (ix) Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines. 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, including direct and indirect greenhouse gases emissions, waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials subject to international bans or phaseouts. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.
- (x) 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.
- (xi) Conserve physical cultural resources 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.

12. URLIP is required to comply with these requirements. Summary of the step by step process is discussed below in this section. Detailed discussions are provided in the ADB SPS.<sup>3</sup>

13. **Screening and Categorization.** Subprojects are to be screened for their expected environmental impacts, and are assigned to a specific category. ADB uses a classification system to reflect the significance of a project's potential environmental impacts. A project's category is determined by the category of its most environmentally sensitive component, including direct, indirect, cumulative, and induced impacts in the project's area of influence. Each proposed subproject is scrutinized as to its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. Projects are assigned to one of the following four categories:

- (i) **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required.
- (ii) **Category B.** A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination is required.
- (iii) **Category C.** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.
- (iv) **Category FI.** A proposed project is classified as category FI (Financial Intermediary) if it involves investment of ADB funds to or through a FI.

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<sup>3</sup> ADB. 2009. [Safeguard Policy Statement](#). Manila.

14. No Category A project are eligible for implementation under the URLIP. Therefore all activities that may be classified as Category A will be excluded.

15. **Environmental Assessment.** Environmental assessment shall include description of environmental and social baseline to provide an understanding of current conditions forming the benchmark against which subproject impacts are assessed. Environmental impacts and risks will be analyzed for all relevant stages of the project cycle, including design and planning stage, construction, operations, decommissioning, and post-closure activities such as rehabilitation or restoration. The structure and composition of the typical IEE report is provided in Appendix 3. The IEEs of Output 2 subprojects prepared during the ADB loan processing stage may be used as model documents for URLIP subprojects.

16. **Environmental Planning and Management.** The PCO and PIUs shall prepare environmental management plan (EMP) to be included in the IEE report. The EMP shall describe and address the potential impacts and risks identified by the environmental assessment. The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the subproject's impact and risks. The EMP shall include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators.

17. **Public Disclosure.** DUDBC, through PCO, shall submit to ADB for disclosure on ADB website so affected people, other stakeholders, and the public can provide meaningful inputs into the subproject design and implementation.<sup>4</sup>

- (i) Draft / final IEE upon receipt;
- (ii) a new or updated environmental impact assessment (EIA)/IEE and corrective action plan prepared during subproject implementation, if any; and
- (iii) environmental monitoring reports submitted during subproject implementation upon receipt.

18. **Consultation and Participation.** PCO and PIUs shall carry out meaningful consultation<sup>5</sup> with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. The consultation process and its results are to be documented and reflected in the environmental assessment report.

19. **Grievance Redress Mechanism.** DUDBC, through PCO, shall establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the subproject's environmental performance. The grievance mechanism shall be scaled to the risks and adverse impacts of the subproject. As of the ADB loan processing for URLIP, a

<sup>4</sup> Per ADB SPS, 2009, prior to disclosure on ADB website, ADB reviews the "borrower's/client's social and environmental assessment and plans to ensure that safeguard measures are in place to avoid, wherever possible, and minimize, mitigate, and compensate for adverse social and environmental impacts in compliance with ADB's safeguard policy principles and Safeguard Requirements 1-4."

<sup>5</sup> Per ADB SPS, 2009, meaningful consultation means a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;<sup>1</sup> (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

grievance redress mechanism (GRM) has been established and discussed in detail in Section VI below.

20. **Monitoring and Reporting.** PCO shall monitor, measure and document the progress of implementation of the EMP. If necessary, PCO will identify the necessary corrective actions, and reflect them in a corrective action plan. PCO will prepare and submit to ADB semi-annual environmental monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. For subprojects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis until ADB issues a project completion report.

21. **Unanticipated Environmental Impacts.** Where unanticipated environmental impacts become apparent during subproject implementation, PCO 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 those impacts.

22. **Physical Cultural Resources.** PCO is responsible for siting and designing the subproject to avoid significant damage to physical cultural resources. Such resources likely to be affected by the subproject will be identified, and qualified and experienced experts will assess the subproject's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process. When the proposed location of a subproject component is in areas where physical cultural resources are expected to be found as determined during the environmental assessment process, chance finds procedures shall be included in the EMP.

23. **Pollution Prevention and Control Technologies.** During the design, construction, and operation of the subproject the PMO and RPMOs shall apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines. These standards contain performance levels and measures that are normally acceptable and applicable to subprojects. When the Government of Nepal regulations differ from these levels and measures, the executing agency shall achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific subproject circumstances, the executing agency will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS, 2009.

24. **Occupational Health and Safety.** PCO<sup>6</sup> shall ensure that workers<sup>7</sup> are provided with a safe and healthy working environment, considering risks inherent to the sector and specific classes of hazards in the subproject work areas, including physical, chemical, biological, and radiological hazards. PCO shall ensure to take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work by (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v)

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<sup>6</sup> In case where responsibility is delegated to subproject contractors during construction phase, PCO shall ensure that the responsibilities on occupational health and safety as described herein are included in the contract documents.

<sup>7</sup> Including nonemployee workers engaged by the borrower/client through contractors or other intermediaries to work on project sites or perform work directly related to the project's core functions.

documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.

25. PCO shall ensure to apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines.<sup>8</sup>

26. **Community Health and Safety.** PCO shall ensure to identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the subproject, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.

27. **Environmental Audit.** When the subproject involves existing activities or facilities, PCO is responsible to ensure that relevant external experts will perform environmental audits to determine the existence of any areas where the subproject may cause or is causing environmental risks or impacts. If the subproject does not foresee any new major expansion, the audit constitutes the environmental assessment for the subproject.

28. **Bidding and Contract Documents.** IEEs and EMPs are to be included in bidding and contract documents and verified by the PCO. The PCO shall also ensure that bidding and contract documents include specific provisions requiring contractors to (i) comply with all other conditions required by ADB,<sup>9</sup> and (ii) to submit to PCO/PIU, for review and approval, a site-specific environmental management plan (SEMP), including (a) proposed sites/locations for construction work camps, storage areas, hauling roads, lay down areas, disposal areas for solid and hazardous wastes; (b) specific mitigation measures following the approved EMP; (c) monitoring program as per SEMP; and (d) budget for SEMP implementation. No works can commence prior to approval of SEMP. A copy of the EMP or approved SEMP will be kept on site during the construction period at all times. Non-compliance with, or any deviation from, the conditions set out in the EMP or SEMP constitutes a failure in compliance and shall require corrective actions.

29. **Conditions for Award of Contract and Commencement of Work.** PCO/PIUs shall not award any Works contract for a subproject until (i) relevant provisions from the EMP are incorporated into the Works contract; and (ii) the IEE is updated to reflect subproject's detailed design and PCO has obtained ADB's clearance of such IEE. For "design, build, and operate" type contracts, PCO shall ensure no works for a subproject which involves environmental impacts shall commence until (i) relevant provisions from the EMP are incorporated into the Works contract; and (ii) the IEE is updated to reflect subproject's detailed design and PCO has obtained ADB's clearance of such IEE.

## **B. Nepal Environmental Regulatory Framework**

### **1. Environmental Assessment Procedures.**

30. Nepal has enacted range of environmental policies and laws to protect and conserve environment and cover a broad range of environmental and sector issues. These legal

<sup>8</sup> World Bank Group, 2007. *Environmental, Health, and Safety General Guidelines*. Washington, DC.

<sup>9</sup> Contractors to comply with (i) all applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste; and (c) elimination of forced labor; and with (ii) the requirement to disseminate information on sexually transmitted diseases, including HIV/AIDS, to employees and local communities surrounding the project sites.

instruments ensure the integration of environmental aspects in development projects. Environmental Protection Act (EPA) of 2019 and Environmental Protection Rules (EPR) of 2020 are two important legal frameworks for environmental protection, and addressing environmental issues related to development, infrastructure and other projects and activities.

31. **Environmental Protection Act (EPA) 2019.** This Act repeals the EPA 1997. As per EPA 2019, chapter 2 section 3, the proponent shall prepare an environmental study report based on the proposal relating the development, construction work and submitted to the designated agencies (either concerned sector agency or the ministry of forest and environment) based on the project scope and pertaining to matters falling under the jurisdiction of local level or provincial level or federal level. The concerned sector agency (CSA)<sup>10</sup> approves brief environmental study reports or IEE reports, while the Ministry of Forest and Environment approves EIA reports. Government approval of the assessment report is required prior to project implementation. This Act has the following features:

- (i) Sets out the review and approval process of Environmental Study Reports, that involve informing and consulting stakeholders;
- (ii) Stipulates that no one is to create pollution that would cause significant adverse impacts on the environment or harm to public life and health, or to generate pollution beyond the prescribed standards;
- (iii) Specifies for the Ministry in charge of environment (currently the MoFE) to conduct inspection of approved projects to ensure that pollution prevention, control or mitigation is carried out according to the approved Environmental Study Report;
- (iv) Provides for the protection of objects and places of national heritage and places with rare plants, wildlife and biological diversity; and
- (v) States that any person/party affected by pollution or adverse environmental impact caused by anybody may apply to the prescribed authority for compensation to be recovered from the polluter/pollution generator.

32. **Environmental Protection Rules (EPR), 2020.** The Rules repeals the EPR 1997. The Rules defines environmental assessment study process, elaborating the provisions in the EPA. All development projects should first be screened using criteria that are based on the type and scale of project stipulated in the Schedules 1, 2 and 3 of EPR to determine the level of environmental assessment required. Based on the type, scale and project costs, the EPR 2020 stipulates conducting (i) a Brief Environment Study (BES), (ii) an Initial Environmental Examination (IEE) or (iii) an Environmental Impact Assessment (EIA) for the projects as listed in the Schedule 1, 2 and 3 respectively.

33. EPR 2020 require conduct of public hearing and disclosure. While public hearing requirements are similar in all categories, disclosure requirements vary. Disclosure of BES and IEE is not required, but the project proponent should publish notice in national daily newspaper with a timeline of seven days to collect opinion and suggestions. In case EIA, it should be made public and available to download from the project proponent's website. In the public hearing, the project proponent shall ensure participation of affected local community, user groups, and representatives from local government. The public hearing shall be documented. EPR also

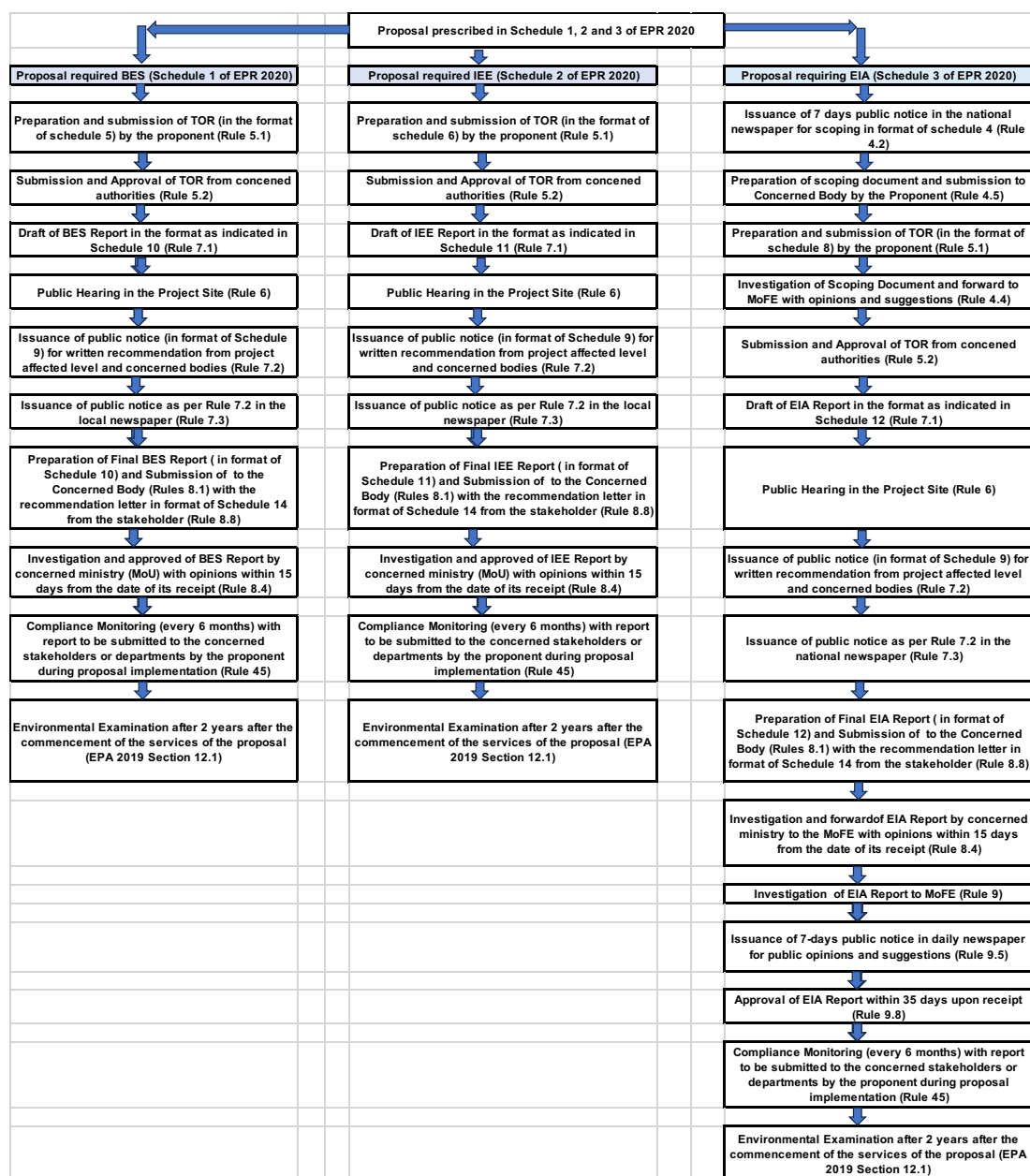
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<sup>10</sup> The CSAs are responsible for the: (i) review of applications for EIA scoping and approval of IEE schedules of work and TORs; review of submitted IEE or EIA Reports; (iii) approval of IEE Reports; (iv) forward of reviewed EIA Reports together with its review opinions and suggestions to MOFE; and (v) monitoring and evaluation of project implementation impacts.



requires implementation of EMP, monitoring and reporting. Environmental assessment process and requirements of per EPR, 2020 are depicted in Figure 1.

**Figure 1: Environmental Assessment Requirements in Nepal per EPR, 2020**



34. The following Table identifies the environmental assessment categories and requirements Project Output 2 components. PCO will liaison with the MOFE and confirm these requirements after the proposed components to be funded under the Output 2 are finalized.

**Table 2: Indicative Environmental Assessment Requirements of Proposed Output 2 Components per EPR, 2020**

No.	Subproject	Likely Project Components	Applicable Schedules	Likely Environmental Assessment Requirement per EPR 2020
1	Revitalization of Heritage and Cultural Sites in Janakpur	<ul style="list-style-type: none"> <li>• Construction of Bibah mandap– replica design</li> <li>• Improvements to ponds , construction of embankments, creation of walking of path, plantation and landscaping, facilities, provision of visitor / tourist amenities such as drinking water, toilets, seating and resting areas, parking spaces, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), schedule 2, 4 (2), IEE (&gt;NPR.50 million)</li> <li>• Schedule 1, 8(5), BES (Town Development Surface Pavement and parking area of 1-5 ha.)</li> </ul>	IEE
2	Cultural, Natural and Green Public Spaces Development in Saina Maina	<ul style="list-style-type: none"> <li>• Improvement of water bodies Panbari Wetland, creation of walking path and wooden bridges, general land scaping and plantation</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), schedule 2, 4 (2), IEE (&gt;NPR.50 million)</li> <li>• Schedule 1, 1 (7) Use of forest area up to 1 hectare (BES)</li> </ul>	IEE
3	Green Public Spaces Development in Devdaha and Tilottama	Creation of parks and green spaces with basic amenities like water supply and toilets	<ul style="list-style-type: none"> <li>• Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), schedule 2, 4 (2), IEE (&gt;NPR.50 million)</li> </ul>	BES
4	Danda River Corridor Project in Siddharthnagar	<ul style="list-style-type: none"> <li>• Walking Trail along the river corridor, strengthening of embankment (minor works only), creating of boating and other recreation activities; parking spaces, creation of walking path, wooden bridges viewing decks and water quality Improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule 1, 1 (7) Use of forest area up to 1 hectare (BES)</li> <li>• Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), schedule 2, 4 (2), IEE (&gt;NPR.50 million)</li> <li>• Schedule 1, 8(5), BES (Town Development Surface Pavement and parking area of 1-5 ha.)</li> </ul>	IEE
5	Global Park, Lumbini Sanskrithik	<ul style="list-style-type: none"> <li>• Build replica of attractions from around the world – Eiffel Tower, Statue of Liberty etc.</li> <li>• Land scaping and plantations; walking trails across the Park</li> <li>• Convention center, restaurant and other visitor amenities and facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), Schedule 2, 4 (2), IEE (&gt; NPR.50 million)</li> </ul>	IEE

No.	Subproject	Likely Project Components	Applicable Schedules	Likely Environmental Assessment Requirement per EPR 2020
6	Natural and cultural heritage tourist facilities, Pokhara	<ul style="list-style-type: none"> <li>Phewa lake organic trail; Panchase eco-Development, provision / repair of stone steps, improvement of botanical garden, glass bridges at Seti river gorge, land scape and greenery, Bindabasini area street development (access road improvement, creation of walking paths); inter lake cycle track; information boards, provision of water and sanitation facilities;</li> </ul>	<ul style="list-style-type: none"> <li>Schedule 1, 1 (7) Use of forest area up to 1 hectare (BES)</li> <li>Schedule 1, 8(5), BES (Town Development Surface Pavement and parking area of 1-5 ha.)</li> <li>Schedule 1, 4 (2), BES (NPR.20-50 million project cost with tourism infrastructure), Schedule 2, 4 (2), IEE (&gt;NPR.50 million)</li> </ul>	IEE
7	Public amenities	<ul style="list-style-type: none"> <li>Public / individual toilets with Septic tanks</li> <li>Walkways / footpaths in poor neighbourhoods</li> </ul>	-	not specified – this is to be reviewed during design phase

## 2. Forest Clearance

35. Per forest regulations (Forest Act, 1993 and its amendments and regulations), forest clearance is required if the project will result in clearing of national forest or falls within protected area. Tree cutting in any forest area required permission from the District Forest Office (DFO). Permission from Community Forest User Groups is required if the location is within the boundary of a community forest. Forest Act restrict the usage of forests, and it mentions that Government of Nepal may give permission to use some part of forest (organized forest/conserved forest/community forest/lease hold forest) to implement such projects with no other alternatives than to use the forest and that there will not be any adverse environmental effect. It is mandatory to plant 25 saplings for every tree cut in forest land and maintain them for 5 years.

## 3. Physical Cultural Resources

36. Under Ancient Monuments Preservation Act, 1956, the Government of Nepal declares the monuments as protected monuments and areas are conserved as preserved monuments area. The act classifies monuments, from the point of view of importance, as international importance, national importance or local importance. Act restricts construction and excavation works including repair and rehabilitation in or near the protected area. The rules (Ancient monument preservation rules, 1989 and amendment rules 1999) established under the Act further elaborates and provides means of implementation of Act. According to these rules, any excavation or construction work, require prior permission of Department of Archaeology (DOA). Rules also specify procedures for archeological objects, excavations etc.

## 3. Other Relevant National Laws, Policies and Guidelines

37. Following table below provides a brief of relevant national laws, policies and guidelines of the Government of Nepal related to environmental safeguards and their potential applicability to output 2 components.

**Table 3: Other Relevant Environmental Policies, Laws and Guidelines**

S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
<b>A</b>	<b>Development Policies</b>			
1	Nepal Tourism Policy	1995	GoN's general tourism policy is based on twin objectives: improving quality of tourism industry and reputed placement of tourism in international markets. To fulfill these objectives, partnership between the Government and private sector stakeholders is felt necessary. The Nepal Tourism Board is the bridge between public and private sectors. It facilitates government-private partnership and develops tourism products and marketing. The policy stresses participation of private sector in development and expansion of tourism activities.	Applicable to all components
2	National Wetlands Policy	2003	Wetlands policy has been formulated for planned conservation, maintenance and development of the country's wetlands, while providing support to economic, social and cultural development of local communities by improving their living conditions through wise use of these wetlands. Nepal has shown its commitment to wetlands conservation, especially the conservation of waterfowl habitats of international importance, by signing the Ramsar Treaty 1971. The policy is also in conformity with the directives of the signatory nations passed by the contracting parties in 1996, regarding the mobilization of local communities for their active participation in the management of wetlands listed in the Ramsar Site as well as other wetlands and their watershed areas.	Applicable to subprojects such as Panbari Wetland Improvement in Saina Maina and Pokhara Inter-Lake Cycle Route Development

S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
3	Water Induced Disaster Management Policy	2015	This policy is introduced to achieve the objectives of the National Water Resources Strategy and National Water Plan on water induced disaster management sector through participation and coordination of public, cooperatives and private sector institutions. It encourages people to participate with voluntary contribution of land for flood protection works. It stresses the need for medium and long-term disaster prevention and control programs and make them climate resilient and environment friendly.	Applicable to components such as Dandi River Corridor in Siddharthnagar and Janakpur Projects where recreational and cultural use of water bodies are being promoted.
<b>B</b>	<b>Acts, Regulations and Rules</b>			
1	Environment Protection Act	2019	Any development project, before implementation, shall conduct environmental assessment of required level. Approval of the reports and environment clearance will be provided by a competent government agency as identified in the Act. The Act restricts polluting activities and authorizes the Government for Monitoring and Enforcement. The Act has provision for compensation to affected parties from environmental impacts and punishment to polluters.	Applicable to all components
2	Environmental Protection Rules (EPR)	2020	EPR and its schedules provide step-wise requirements to be followed for conducting environmental assessments such as BES, IEE or EIA, as the case may be. It also obliges the Proponent to timely consult and inform the public on the contents of the proposal and findings of the assessments. EPR also requires the proponent to collect comments and suggestions regarding the proposal through public notice and public hearings and submit the recommendations of the concerned stakeholders in the Environmental Management Plan (EMP). It also guides on process of approval from the concerned Ministry.	Applicable to all components
	The National Parks and Wildlife Conservation Act,	1973	This Act deals with the conservation and management of wildlife and habitat. The Act restricts entry into national parks without prior permission of the concerned authority. Hunting of animals or birds, building or occupying houses, shelters or structures, occupying, clearing or planting or growing in any part, cutting, felling,	The Act would apply is components proposed in national parks. Project components will not be located in national parks.

S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
			<p>removing or overshadowing any tree and removing any quarry or any other activities in national parks are banned.</p> <p>Wildlife Reserve Regulation, 1977, entry, construction of houses or sheds, clearance of forest and forest products, quarrying and overnight stay in a reserve area is prohibited unless authorized in writing by the relevant GoN authority.</p> <p>Buffer Zone Management Regulation, 1994, clearance of forests and forest products, acquisition of land, use of quarry sites and hunting in buffer zones is restricted unless written approval of the relevant GoN authority is obtained.</p>	
3	Ancient Monument Preservation Act	1956	<p>It was enacted to integrate the conservation and protection of ancient monument and archeological properties. The act mentions any ancient monuments and artistic objects of hundred years old shall be regarded archeologically important objects and Department of Archeology (DoA) shall preserve such objects. Any work on land within or in proximity to a notified monument area shall have prior approval or permit from the National Department of Archaeology (Clause 5, Article 3)</p>	Applicable to the components that are located in or in proximity to the heritage areas.
4	Aquatic Animal Protection Act	1960 (1997)	<p>It prohibits the closure or demolition of fish ladders and other structures that are placed in streams, rivers, lakes and other surface water bodies to aid movement and migration and / or protect aquatic animals (Article 3A)</p>	Applicable to components that deal with rivers (Danda River), wetlands and ponds
5	Soil and Watershed Conservation Act	1982	<p>Section 3 of the Act empowers GoN to declare any area as a protected watershed area. Section 4 of the Act provides that a watershed conservation officer has the authority to implement the protect vegetation in landslide-prone areas and undertake afforestation programs. Act outlines the essential parameters necessary for proper watershed management (including rivers and lakes). The Act is applicable to protected watersheds.</p> <p>Article 10 prohibits the following on lands within a protected watershed area prescribed as those on which floods, landslides, erosion occur or may occur,</p>	Applicable to the subprojects that are initiated within the forest areas or the upgrading works like eco-development of the Panchase areas, Phewa Lake organic trail and the providing facilities of sanitation in the existing cycle trail that passes through the hills and forest areas.

S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
			without the priori permission of the concerned Watershed Conservation Officer viz., (i) block, store, or divert in any way water from any stream, rivulet, waterfall or underground water for any purpose; (ii) cut or destroy natural vegetation and other forest products; (iii) cause accumulation and sedimentation of accumulated boulders, rocks, sand, soil, mud etc.; (iv) extraction of natural aggregates; and (v) dumping of solid wastes.	
6	Water Resource Act	1992	Water Resource Act, 1992 of clauses 3, 7, 18, 20, 22 and 24 implies state ownership of any surface/stream bodies of Nepal and stresses the utilization of water resources by any individual or organization without causing harm to others. It embodies that the GoN can fix, monitor and formulate regulations pertaining to water quality standards, pollution tolerance levels and development of water resources. It prohibits any action that may pollute water resources surpassing the threshold value. It has prioritized use of water resources in the successive order: drinking/domestic use, irrigation, fishery, electricity, water transport, and recreation.	Applicable to the subprojects; construction may lead to pollution of water bodies; abstraction of water from any water body will require grant of use of water resources
7	Water Resources Regulations	1993	The regulations require that measures are taken to conserve aquatic life and water environment for mitigating socio-economic effects of project in concerned areas. All water resources either falling on alignment of project or located near project site must be investigated for the probable impacts on the services provided by them.	Applicable to certain project implemented near rivers such as the Dandi River Corridor Project in Siddharthnagar.
8	Labor Act	1992	Chapter 5 stipulates health and safety provisions at work places, keeping work premises clean and safe, eg., (i) with provisions for solid waste, sewage and hazardous substance management; (ii) instituting measures to prevent dust, fumes, and other impure materials that would adversely affect health; (iii) with supply of potable water and water for emergency situations; (iv) with arrangements for use of protective devices and wears; (v) with fire safety arrangements; and (vi) measures for protection from hazardous machines /	Applicable to all components

S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
			equipment and from physical injury or harm from lifting of heavy weights	
9	Forest Act	1993	This Act prohibits the extraction of boulders, rocks, pebbles, sand or soil from national forests defined as all forests, excluding private forests, whether marked or unmarked with forest boundary to include waste or uncultivated lands, or unregistered lands surrounded by the forests or situated near adjacent forests as well as paths, streams, rivers, lakes, riverine lands within the forests.	Applicable to certain components that are implemented in or near forest areas., Pokhara Organic Trail, Cycle Path Improvement and Panchase Eco-Development Sub-Projects.
10	Conservation Area Government Management Area Rules	2001	Contains a number of regulatory measures to minimize environmental impacts within the forests, national parks, wildlife reserves and conservation areas. Prior to implementation, the EPA 2019 AD requires a proponent to undertake BES, IEE or EIA for a proposed project and have the report approved by the concerned ministries.	Applicable to the components that are to be implemented within or nearby the national or community forest areas
11	Forest Regulations	2022	Pertaining to Rule 87 (2) in case of the development project related to the use of forest land, the coordination has to be done with the concerned division forest office during the feasibility study and environmental study. Rule 91, following the Rule 90, after the decision made by the government of Nepal for the permission to use the forest land, development project should make the availability of the applicable land for the forest development as per the Forest Act (2076), Section 42 (2).	Applicable to the components that occurs in the forest areas
12	Solid Waste Management Act	2011	The Act stipulates the responsibility of generators of hazardous, medical, chemical or industrial wastes in the management of such wastes. The Act also requires individuals and entities to reduce the amount of solid waste generated while carrying out their work or business.	Applicable to all components
13	Local Self Governance Act	1999	This Act gives Local Government the functions, duties and power to, among others; (i) conserve and protect their local environment and natural resources; (ii) plan, implement and / or operate and maintain local water supply projects; (iii) implement and / or arrange for implementation local sanitation / sewerage and drainage projects; (iv) protect cultural	Act empowers municipalities to take up works related t protection and conservation of cultural heritage and religious sites



S.N.	Legal Provisions on Environmental Protection and Management	Year	Relevant Provisions	Applicability to Output 2 components
			heritage and religious sites and / or (v) monitor project activities within their jurisdictions.	
14	Child Labor (Prohibition and Regulation) Act	2000	As per section 3 of this act, no child having not attained the age of 14 years shall be engaged in works as a laborer.	Applicable to all components
16	Nepal Tourism Act	1978	This Act facilitates to increase tourist arrival in the country and encourages tourists and their handling agents in Nepal to minimize environmental impact during their visit. The Act also shows serious concerns about visitors' health, facilities and welfare and empowers the Government to generate tourism revenue and establish plough-back mechanism for tourism infrastructure development.	Applicable for all components

### C. International Environmental Agreements

38. In recognition of its global responsibilities, Nepal is a signatory to several international environmental conventions as presented in Table 4. Each agreement / convention places obligations on signatory parties or governments, which include provision of a legislative basis for implementation, adherence to the requirements and conditions of each convention, monitoring implementation performance on a regular basis and reporting on a regular basis to the respective secretariat.

**Table 4: International Environmental Agreements relevant to URLIP Output 2**

International Convention	Year	Provisions
Convention on International Trade in Endangered Species of Wild Fauna and Flora	1975	Parties to control the trade of certain wildlife species to prevent further endangering of their survival. CITES classifies species according to the following criteria viz., species threatened with extinction; species which could become endangered; and species that are protected. Nepal is rich in biodiversity and has number of protected species
World Heritage Convention	1978	Parties to ensure the protection and conservation of the cultural and natural heritage situated on territory of, and primarily belonging to the State. World Heritage sites are identified as per this convention. There are a number of world heritage sites in Nepal. Lumbini, the birthplace of Buddha, is in project area. Ram Janaki temple located in Janakpur project town is on tentative list of world heritage sites in Nepal. None of the components however will be located within world heritage sites.

International Convention	Year	Provisions
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention)	1987	Parties to conserve and wisely use wetlands (i.e., maintaining their ecological character) as a contribution towards achieving sustainable development locally and throughout the world. This convention will identify the Ramsar areas. Cluster of 9 lakes in Pokhara project area is Ramsar notified wetland.
Convention on Biodiversity (COB)	1992	Parties to require the environmental assessment of projects that are likely to have significant adverse effects on biological diversity with a view of avoiding or minimizing such effects.
UN Framework Convention on Climate Change	1992	Parties to take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.
Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their Disposal	1996	Parties to, among others, minimize the amount and toxicity of hazardous waste generated, manage the hazardous and other wastes they generate in an environmentally sound manner and as close as possible to the source of generation.
International Labour Organization (ILO) Convention of Indigenous and Tribal Peoples	2007	Highlights the need to recognize indigenous and tribal people's specific knowledge, skills and technologies as the basis for their traditional economies and self-determined development process.

#### **D. Comparative ADB SPS requirements and government laws and regulation on environmental assessment.**

39. Nepal's environmental regulatory framework is principally defined by the Environmental Protection Act (EPA), 2019 and the rules issued under this Act, i.e., Environmental Protection Rules, 2020. Besides, there are various other acts, policies and rules that deal with specific areas like forests, wildlife, water resources, labour welfare, health and safety etc. The environmental regulatory framework is generally aligned with ADB SPS policy principles, and there are no major gaps between the ADB SPS 2009 requirements and the GoN's requirements on environmental assessment. GON requires screening, categorization, environmental assessment and environmental management plan preparation, public consultation and disclosure implementation and compliance monitoring are required. Some requirements, such as disclosure requirements, however vary. These do not apply for BES and IEE category projects, whereas this is mandatory for EIA category projects.

#### **E. Institutional Capacity**

40. Department of Urban Development and Building Construction (DUDBC) through its Project Coordination Office (PCO) will be responsible for environmental safeguards, conduct of IEE studies and preparation of corresponding IEE reports and EMPs, and monitoring of safeguards issues for all subprojects and components under the project, including Output 2 components. Each project municipality will be implementing agency, and a project implementation unit (PIU) will be established. DUDBC has implemented previous ADB-funded Integrated Urban Development Project (IUDP) and therefore aware of ADB SPS requirements. The previous project experiences have helped DUDBC in gaining the knowledge on environmental assessment, management, implementation, monitoring and reporting of projects in accordance with the requirements of ADB SPS. DUDBC will provide municipalities and PIUs

with the required assistance in implementing environmental management and monitoring at the field level. The PCO will have an environment safeguards officer of engineer rank, who will be responsible for environment safeguards compliance, planning, and implementation as per the agreed EARF and IEEs prepared consistent with the ADB's SPS and GON rules and regulations. PCO and PIUs will be supported by the Project Management and Capacity Building Consultant (PMCDC), and Institutional Strengthening and Community Participation Consultant (ISCPC). PIUs will have environmental safeguards officer designated from the PIU staff and will be supported by the Supervision and Design Consultant (SDC).

41. In recognizing the need for improvement of implementation capacity, the executing and implementing agencies of the project will continue to require capacity building measures for (i) a better understanding of new and evolving project-related environmental issues; and (ii) to strengthen their role in implementation of mitigation measures and subsequent monitoring. Training and awareness workshops are included in the project with the primary focus of enabling the PCO and PIU staff to conduct assessments of potential environmental impacts and carry out environmental monitoring and implement the EMPs.

#### IV. ANTICIPATED ENVIRONMENTAL IMPACTS

42. Preliminary lists of subprojects and components have been identified and environmental impacts during design, pre-construction, construction, and operation will be reviewed and assessed for each project during project preparation. Proposed Output 2 components will improve tourist assets and amenities and focuses primarily on sites located in heritage/cultural areas and natural areas. During EARF preparation, visit to the proposed Heritage Corridor site in Pokhara reveals that the local community are highly enthusiastic to showcase the earlier planning and design of houses, the construction technologies utilized and how these were integrated to the cultural practices in the region. Integration of the local cultural practices and participation of local community is important to avoid adverse impacts.

43. During project construction and implementation, impacts on the physical environment such as water, air, soil, and noise, and on the biological environment, like flora and fauna and socioeconomic environment, will be carefully assessed by the project environmental specialists. Generic environmental impacts of Output 2 components are listed in the table below.

**Table 5: Potential Generic Environmental Impacts of URLIP Output 2 Components**

S. No	Project phase	Potential Generic Environmental Impacts (no mitigation scenario)
1	Design / Location Impacts	<p><b>Cultural heritage sites</b></p> <ul style="list-style-type: none"> <li>• impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources</li> <li>• Selection of incompatible design, material and scale the local architectural, physical, cultural and landscaping elements</li> <li>• Lack of preference to the use of local material and craftsmanship,</li> <li>• Lack of public consultation and feedback on planning and design interventions</li> <li>• Use of resources and generation of liquid and solid waste</li> <li>• In compatible design / planning with respect to existing tourism / heritage / development plans</li> </ul> <p><b>Natural sites, green spaces etc.,</b></p> <ul style="list-style-type: none"> <li>• disturbance to precious ecology (e.g., sensitive or protected areas) and terrestrial / aquatic habitats</li> </ul>

S. No	Project phase	Potential Generic Environmental Impacts (no mitigation scenario)
		<ul style="list-style-type: none"> <li>• Flood risk for facilities</li> <li>• Lack of integration of cultural elements of water bodies in beautification and improvement – for especially ponds that have cultural significance for community and are used for religious rituals</li> <li>• In compatible design / planning with respect to existing lake/ tourism / area development plans</li> <li>• Encroachment of water bodies, flood plains; changes in flow regime</li> <li>• Lack of information of biodiversity</li> <li>• Resource use conflicts</li> <li>• alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site</li> <li>• adverse impacts on aquatic life</li> <li>• Unsustainable use of resources</li> <li>• Generation of liquid and solid waste; pollution and contamination of land and water resources</li> <li>• Air emissions from increased activities</li> <li>• Introduction of invasive species and or species not suitable for local environment</li> </ul> <p><b>Public amenities</b></p> <ul style="list-style-type: none"> <li>• Disturbance to drainage leading to water logging flooding</li> <li>• Tree cutting</li> <li>• Groundwater contamination from toilers and septic tanks</li> <li>• Hygienic issues due to poor maintenance and lack of water</li> </ul>
2	Construction impacts	<ul style="list-style-type: none"> <li>• Impact on heritage buildings arising from the use of faulty construction methodologies for civil works in heritage areas</li> <li>• Loss / damage to heritage buildings</li> <li>• Safety risks and use of substandard or unsuitable methods of repair or construction</li> <li>• Impact on Pond/ water bodies ecosystem if works are carried out indiscriminately without scheduling works as per the pond/water body ecosystem requirements</li> <li>• Disturbance / damage to flora and fauna; poaching or hunting, cutting of trees</li> <li>• Impact on the community water sources</li> <li>• Loss of tourism revenues due to construction works and related disturbances and lack of access</li> <li>• Loss of trees and vegetation</li> <li>• Damage / disturbance to vegetation due to construction related activities and movement of vehicles, equipment</li> <li>• Water quality impacts from spills, material leakage into the environment and unscientific waste disposal from material storage sites and labour campsites</li> <li>• Construction related noise, dust pollution and air emissions</li> <li>• Water Quality will be impacted from spills, material leakage into the environment and unscientific waste disposal from material storage sites and labour campsites, during construction as it enters into the stormwater drains and eventually drains into the nearby water body;</li> <li>• Impacts due to construction material extraction,</li> </ul>

S. No	Project phase	Potential Generic Environmental Impacts (no mitigation scenario)
		<ul style="list-style-type: none"> <li>• Impacts due disposal of construction waste and debris</li> <li>• Occupational H&amp;S Hazards from general construction works</li> <li>• Community H&amp;S impacts arising from the proximity of the construction site to the residential areas;</li> <li>• Impact on land and groundwater arising from any unscientific disposal of solid wastes.</li> <li>• Clean-up operations, restoration and rehabilitation</li> </ul>
3	Operation and maintenance impacts	<ul style="list-style-type: none"> <li>• Maintenance activities may cause disturbance to sensitive receptors, dust, and increase in noise level;</li> <li>• Poor operation and maintenance of the facilities created can pose a health hazard to the nearby community; lack of proper water, lighting can effect the usage, and poor maintenance of public toilets lead to unhygienic conditions</li> <li>• Impediments to residents and businesses during routine maintenance;</li> <li>• Unhygienic conditions at the improved facilities can breed diseases;</li> <li>• Standing water due to inadequate storm water drainage systems on walkways / footpaths and inadequate sanitation management practices pose a health hazard by providing breeding grounds for disease vectors such as mosquitoes, flies, and rats;</li> <li>• Lack of involvement or opportunities for local community may lead to conflicts with tourist operators and tourists.</li> <li>• Conflicts due to lack of awareness in tourists on local customs and beliefs</li> <li>• Human-animal conflicts</li> <li>• Safety of tourists / visitors</li> <li>• Safety of community</li> <li>• Encroachment of hikers / bikers / tourists into sensitive areas damage disturbance to flora / fauna</li> </ul>

## V. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS AND/OR COMPONENTS

### A. Environmental Guidelines for Subproject and Components Selection

44. **Exclusion Criteria.** No Category A projects per ADB SPS will be considered for implementation under URLIP. Subprojects that would directly affect environmentally protected areas, and highly valued cultural property and fall under Category A shall not be considered for funding under the project. URLIP will not include and/or involve any activities listed in ADB's Prohibited Investment Activities List. The following criteria will be used for excluding sites which might have significant negative environmental impacts:

- (i) Projects located in ecologically sensitive areas such as protected areas (national parks, wildlife reserves, conservation areas)
- (ii) Projects located in world heritage sites
- (iii) Projects involving with repairs, rehabilitation or conservation works of archeological sites, ancient monuments and remains of international or national importance as notified under Ancient Monument Preservation Act, 1956
- (iv) Projects involving construction of barriers, weirs across rivers
- (v) Projects likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented, and may affect an area larger than the

- sites or facilities subject to physical works (i.e., category A projects as per ADB SPS 2009)
- (vi) Projects require Environmental Impact Assessment (EIA) as per Environmental Protection Act, 2019 and Environmental Protection Rules 2020
  - (vii) Activities listed in ADB's Prohibited Investment Activities List (see Appendix 3 of ADB SPS).

45. **Subproject Selection Criteria.** Guidelines for project selection in Table 6 provide further guidance to avoid or minimize adverse impacts during the identification and finalization of subprojects.

**Table 6: Environmental Criteria for Selection of Output 2 Components**

Environmental Selection Guidelines	Remarks
<b>1. Overall selection guidelines - applicable to all subprojects</b>	
(i) Comply with all requirements of relevant national and local laws, rules, and guidelines, including obtaining environmental clearance from concerned sector agency or the Ministry of Forest and Environment	See Section III of this EARF
(ii) Comply with all requirements of ADB SPS 2009 and follow procedures set in this environmental assessment and review framework (EARF)	See Section III of this EARF
(iii) Ensure all planning and design interventions and decisions are made in consultation with local communities and include women. Reflect inputs from public consultation and disclosure for site selection.	<ul style="list-style-type: none"> <li>- Ensure wider participation in such consultations, including but not limited to, community-based organizations, non-government organizations, and agencies involved in research, conservation or protection of natural or cultural heritage sites, environment, biodiversity, tourism etc.,</li> <li>- All consultations should be documented, and feedback considered in project design</li> </ul>
(iv) Avoid locations within protected monuments / sites of national / international importance protected by Department of Archeology, Government of Nepal	<p>If unavoidable</p> <ul style="list-style-type: none"> <li>- works should be limited to provision of amenities / facilities to facilitate tourists and visitors</li> <li>- Such facilities shall be planned and designed in conformity with preserved area /monument conservation / management plan (if such plan is available)</li> <li>- such facilities shall be planned and designed in consultation with DOA, and obtained prior permission of DOA</li> <li>- EMP to include measures to avoid destruction / disturbance of such places</li> <li>- Provide "chance find" procedures in the EMP that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.</li> </ul>
(v) Use of resources optimized both for construction and operation phase	<ul style="list-style-type: none"> <li>- Maximize use of locally available material as far as possible</li> <li>- ensure water abstraction in sustainable limits</li> <li>- Utilize only existing government approved borrow areas</li> </ul>

Environmental Selection Guidelines	Remarks
	- Avoid creation of new borrow areas for the project
(vi) Ensure subproject design includes proper management and safe disposal of runoff, liquid and solid waste	<ul style="list-style-type: none"> <li>- ensure that on-site wastewater treatment facilities such as septic tank and soak pit systems are included</li> <li>- ensure that septic tanks are designed with water sealed bottom and sides, and are designed to prevent flooding / overflowing, and connected to a properly built soak pit to drain off the septic tank effluent</li> <li>- Ensure septic tank and soak pit 30 m away from any well, and that soak pit is constructed in suitable areas(groundwater more than 2 m deep</li> </ul>
(vii) Locate all new facilities/buildings at sites where there is low risk of flooding or other hazards that might impair functioning of or present a risk of damage	In unavoidable circumstances, ensure proper planning and design if sites are low-lying and have flood risk
(viii) Avoid tree-cutting	In unavoidable cases <ul style="list-style-type: none"> <li>- Obtain tree cutting permission</li> <li>- Plant 10 new trees for everyone that is lost.</li> <li>- Plant indigenous or local tree species suitable for project location.</li> </ul>
(ix) Ensure adequate provisions for safety of visitors, staff and workers in design of tourism assets and facilities	
(x) If subproject includes existing facilities <sup>11</sup> to be rehabilitated or expanded and/or associated Facilities, <sup>12</sup> conduct environmental audit and/or environmental due diligence per ADB SPS part of IEE.	For non-compliances, provide corrective action for each area of concern including cost and schedule to be included in the subproject EMP.
(xi) Must not include usage of materials that are manufactured from asbestos concrete, and avoid disturbance to existing asbestos containing materials	Refer to ADB's Good Practice Guidance for the Management and Control of Asbestos. <sup>13</sup>
(xii) Project construction planning avoids / minimizes loss of tourism revenues due to construction works and related disturbances and lack of access	Ensure that appropriate measures are included in the EMP, and works are scheduled in consultation with cultural and tourism authorities and traffic police
<b>2. Cultural heritage subprojects</b>	
(i) Subproject / component will not lead to impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources	Conduct heritage impact assessment for the works located in heritage areas as required Ensure that appropriate construction methodologies, equipment and craftsmen used for works in heritage areas

<sup>11</sup> ADB SPS Appendix 4 para 12 on Existing Facilities

<sup>12</sup> ADB SPS Appendix 1 para 6 defines associated facilities as "not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project"

<sup>13</sup> <https://www.adb.org/sites/default/files/publication/783636/good-practice-management-control-asbestos.pdf>

Environmental Selection Guidelines	Remarks
(ii) Ensure that subproject is compatible with existing heritage / site development plans, if any	
(iii) Subproject are designed in close consultation agencies owning or regulating such properties	
(iv) Ensure selection of compatible design, material and scale suiting local architectural, physical, cultural and landscaping elements	
(v) Design, construction and operation appropriately prioritized use of local material and craftsmanship	
<b>3. Natural sites, green spaces etc.,</b>	
(i) Subproject will not lead to Introduction of invasive species and or species not suitable for local environment	
(ii) Subproject will not lead to disturbance to precious ecology (e.g. sensitive or protected areas)	
(iii) Temple ponds improvement design integrates cultural elements as required	
(iv) Design is compatible with respective lake/ tourism / area development plans	
(v) Ensure that no civil works or facilities are located in flood plains; works in flood plans shall be limited to green spaces and parks	
(vi) Ensure baseline biodiversity assessment for all components involving ponds / wetlands / lakes	
(vii) Subproject designed reviewed the existing resource use and adequately considered in the planning and design	
<b>4. Sanitation Facilities such as Public Toilets</b>	
(i) Ensure public toilets are a provided with water supply and power supply for hygienic, safe, and uninterrupted operations	
(ii) Design toilet as leak proof, and connect outlet to a septic tank (water sealed)	
(iii) Design septic tanks as water sealed compartments to avoided contamination of groundwater/land	
(iv) Locate septic tanks where there is proper access to a mobile suction hose equipment to allow removal of contents periodically for further treatment and disposal	
(v) Locate sanitation facilities (public toilets and septic tanks) preferably (a) 20 m from any source of water supply; (b) 30 m from drainage lines and (c) 100 m to a designated waterway.	Distance restriction may be reviewed depending on the technology adopted for the sanitation facilities and treatment of fecal sludge, site plant availability, and buffer zone planning.
(vi) No manual cleaning or handling of sludge; workers engaged in O&M shall be provided with proper tools and equipment, and personnel protection equipment	
<b>5. Walkways / Footpaths in Poor Neighbourhoods</b>	
(i) Include the provision of new or improved storm water drainage to remove the increased runoff caused by increasing the road surface area	



Environmental Selection Guidelines	Remarks
(ii) Shall not lead to alteration of surface water hydrology of waterways crossed by roads; ensure appropriate cross drainage structures	
(iii) Ensure that drainage system including cross drainage works are designed adequately considering the raised levels of the walkways / footpaths that may create barrier effect	

## **B. Environmental Assessment Procedures for Projects**

### **1. Screening and Classification/Categorization**

46. As soon as sufficient information on a subproject is available, the Project Management and Capacity Building Consultant (PMCDC) environment safeguards specialist will conduct screening to determine the works' environmental category by completing ADB's rapid environmental assessment (REA) checklists in Appendix 2 and submitting this for review to the Project Coordination Unit (PCO), which will determine if the component would require BES / IEE or EIA as per national requirements. Project components that require EIA as per EPR, 2020 will not be eligible for funding under the URLIP.

47. PCO will submit completed REA checklist to ADB for review. To ensure that the project meets ADB's environmental safeguard requirements, as stipulated in the SPS 2009, projects will be screened, and the level of environmental assessment required will be determined. Eligible projects will fall into either category B or C. Project that are classified as Category A will not be eligible for funding under the project.

### **2. Preparation of Environmental Assessment Report**

48. Environmental assessment documents prepared under the project will, to the extent possible, meet both ADB and Government of Nepal requirements in order to streamline the environmental procedures required by both ADB and government.

49. IEE is required for Category B subprojects. Appendix 1 of ADB's SPS, 2009 provides the outline and contents to be followed while preparing IEEs (Appendix 3). Also, the sample IEEs prepared during project preparation provide a good sample which can be followed for preparation of environmental assessments in subsequent subprojects.

50. Siting and designing the subproject to avoid damage to physical cultural resources is to be ensured. ADB SPS, 2009 requires that such resources likely to be affected by the subproject are identified, and qualified and experienced experts assess the subproject's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process. When the proposed location of a subproject component is in areas where physical cultural resources are expected to be found as determined during the environmental assessment process, chance finds procedures shall be included in the EMP. Issues regarding natural and critical habitats will be covered in the IEE report. In case of subprojects located within these areas, a review of management plans and consultation with concerned management staff, local communities, and key stakeholders will be undertaken. Pollution prevention for conservation of resources, particularly technology for management of process wastes, occupational and community health and safety, will be addressed. The IEE will also reflect meaningful consultation and disclosure process with a provision for grievance redress mechanism.

51. ADB requires that an EMP must be developed as part of the IEE. The EMP will outline specific mitigation measures, environmental monitoring requirements, and related institutional arrangements, including budget requirements for implementation. Where impacts and risks cannot be avoided or prevented, mitigation measures and actions will be identified so that the subproject is designed, constructed, and operated in compliance with applicable laws and regulations and meets the requirements specified in the EMP. The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the subproject's impacts and risks. Key considerations include mitigation of potential adverse impacts to the level of "no significant harm to third parties," the "polluter pays" principle, the precautionary approach, and adaptive management.

52. If some residual impacts are likely to remain significant after mitigation, the EMP will also include appropriate compensatory measures (offset) that aim to ensure that the project does not cause significant net degradation to the environment. Such measures may relate, for instance, to conservation of habitat and biodiversity, preservation of ambient conditions, and greenhouse gas emissions. Monetary compensation in lieu of offset is acceptable in exceptional circumstances, provided that the compensation is used to provide environmental benefits of the same nature and is commensurate with the project's residual impact.

53. All IEEs including EMPs will be prepared and submitted to ADB for review, clearance and disclosure prior to bid invitation. The bid documents will include the requirement to incorporate necessary resources to implement the EMP. The IEE including EMP will form part of the bid and contract document, and, if required, will need to be further updated during the construction phase of a subproject.

### **3. Environmental Audit of Existing Facilities**

54. For subprojects involving facilities and/or business activities that already exist or are under construction, the executing and implementing agencies will undertake an environment audit, including on-site assessment, to identify past or present concerns related to impacts on the environment. The objective of the compliance audit is to determine whether actions were in accordance with ADB's safeguard principles and requirements for borrowers/clients, and to identify and plan appropriate measures to address outstanding compliance issues. Where noncompliance is identified, a corrective action plan agreed on by ADB and the implementing agencies will be prepared. The plan will define necessary remedial actions, the budget for such actions, and the time frame for resolution of noncompliance. The audit report (including corrective action plan, if any) will be made available to the public in accordance with the information disclosure requirements of ADB SPS, 2009. If a project involves an upgrade or expansion of existing facilities that has potential impacts on the environment, the requirements for environmental assessments and planning specified in ADB SPS, 2009 will apply in addition to compliance audit.

### **C. Review of Environmental Assessment Reports**

55. IEEs will be reviewed initially by PCO. The IEEs will also be submitted to concerned sector agency (CSA) for approval and issuance of environmental clearance. No works shall commence until IEE or BES is approved by CSA. DUDBC will forward the IEEs for ADB's review. ADB will review all IEEs.

56. For subproject processing, the steps to be followed are shown in Table 7. It is the responsibility of the executing and implementing agencies to ensure subprojects are consistent with the legal framework. Compliance is required in all stages of the project including design, construction, and operation and maintenance. Stricter requirements apply in case the result of ADB's classification is different from that of the government's EPR 1997.

**Table 7: Environmental Procedures for Processing of URLIP Output 2 Components**

<b>Project Stage</b>	<b>ADB Procedure<sup>a</sup></b>	<b>Government of Nepal Procedure</b>
Subproject Identification/ Categorization	Project component selection in line with the EARF project component selection criteria.	Categorization of project components is based on Environmental Protection Rules (EPR), 2020
	Categorization (A/B/C) of the subprojects: PCO to prepare and submit the REA checklists to ADB to confirm the subproject category.  REA checklists applicable to this project Output 2 are attached in Appendix 2.	Schedule 1 activities - brief environmental study (BES) is required. Schedule 2 activities - initial environmental examination (IEE) is required. Schedule 3 activities - environmental impact assessment (EIA) is required. These are not eligible for funding
Detailed design	Preparation of IEE Conduct detailed studies / surveys such as heritage assessment study / biodiversity assessment if required	For project components requiring BES/IEE, PCO to: 1. Prepare draft BES/IEE 3. Submit draft IEE to concerned ministry for review and approval.
	For projects involving facilities and/or business activities that already exist or are under construction, the borrower/client will undertake an environment and/or social compliance audit, including on-site assessment, to identify past or present concerns related to impacts on the environment, and involuntary resettlement. Where non-compliance is identified, a corrective action plan agreed on by ADB and the borrower/client will be prepared. <sup>14</sup>	-
	Conduct meaningful consultations <sup>15</sup> in a manner commensurate with the impacts of affected communities. The consultation process and its results	PCO / PIU / municipality to conduct public hearing per provisions of EPR 2020 ensuring participation of local

<sup>14</sup> The plan will define necessary remedial actions, the budget for such actions, and the time frame for resolution of noncompliance. The audit report (including corrective action plan, if any) will be made available to the public in accordance with the information disclosure requirements of the Safeguard Requirements 1-3.

<sup>15</sup> ADB requires meaningful consultation, which is defined as a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) undertaken in an atmosphere free of intimidation or coercion; (iv) gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

Project Stage	ADB Procedure <sup>a</sup>	Government of Nepal Procedure
	are to be documented and reflected in the IEE.	community, user groups by issuing prior public notices. Project proponents should publish notice in national daily newspaper with a timeline of seven days to collect opinion and suggestions. Public hearing should be documented, and feedback reflected in BES / IEE.
	<p>Disclosure of following documents on ADB website after endorsement by PCO</p> <ul style="list-style-type: none"> <li>- EARF</li> <li>- draft IEE;</li> <li>- updated / final IEEs</li> <li>- environmental monitoring reports.</li> <li>- corrective action plans</li> </ul> <p>PCO to disclose above documents on its website All relevant environmental information and documents such as IEE reports in a form or language understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods shall be used.</p>	The EPR does not require to disclosure of BES and IEE
	Mitigation measures specified in IEE study incorporated in project design	Mitigation measures specified in EIA/IEE study incorporated in project design
Bidding / procurements	IEE including EMP is included into bid/contract documents. Adequate budgetary resources provided	No requirement under EPR, 2020
Appraisal and approval	<p>PCO after review of IEE will forward to ADB. ADB will review, clear and sent back to PCO for endorsement ADB cleared IEE is required prior to invitation of bids; IEE and EMP shall form part of the bidding documents.</p>	For IEE reports, concerned ministry after review will provide approval/decisions to PCO.
Contract award	<p>Conditions to be met to award contract:</p> <ul style="list-style-type: none"> <li>(i) all necessary clearances / permissions, including environmental clearance, obtained by PCO / PIU</li> <li>(ii) IEE cleared by ADB and disclosed</li> <li>(iii) IEE including EMP is part of bidding and contract documents</li> </ul>	No stipulated requirement in EPR, 2020 for contract award

<b>Project Stage</b>	<b>ADB Procedure<sup>a</sup></b>	<b>Government of Nepal Procedure</b>
Implementation	<p>PCO and PIU with the support of PMCDC to implement, supervise and monitor the EMP implementation and ensure compliance</p> <p>PCO and PIU to implement GRM</p> <p>DUDBC / PCO to submit the following to ADB:</p> <ul style="list-style-type: none"> <li>(i) Updated IEE during implementation to reflect any changes in project component</li> <li>(ii) semi-annual environmental monitoring report</li> <li>(iii) corrective action plan where non-compliance is identified.</li> <li>(iv) Unanticipated impacts</li> </ul>	<p>Concerned ministry to monitor the implementation of the EMP measures. If findings suggest that the impacts are higher than what was determined in the reports, PCO to adopt new measures to reduce those impacts.</p>

<sup>a</sup> At any stage of implementing a subprojects, PCO may consult with ADB for any for clarifications on ADB SPS requirements.

## **VI. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM**

### **A. Public Consultation**

57. Consultation, participation, and disclosure constitute an integrated part of the project preparation and implementation. A range of formal and informal participatory methods will be carried out for all projects including, but not limited to, focus group discussion (FGDs), public meetings, community discussions, one-to-one consultation, in-depth and key informant interviews, in addition to the census and socioeconomic surveys. Consultations will be held with special emphasis on vulnerable groups. PIUs with the support of DSC and ISPCP will disseminate information to affected persons and consult with them in a manner that is commensurate with the anticipated project impacts on the affected communities.

58. Comprehensive planning is required to ensure that affected persons, communities, local government, project staff and other key stakeholders interact regularly, and meaningful consultation is conducted at all stages of the project through FGD, public community meetings, key informant interviews and participation in census and survey. The following are the key stakeholders who will be consulted with at various stages of the program implementation:

- (i) all affected persons, project beneficiaries, including representatives of various sectors such as women, youth, indigenous peoples, elderly, persons with disabilities and other vulnerable groups;
- (ii) decision makers, policy makers, government officials, community members;
- (iii) CSOs, including community-based organizations, policy makers, and elected local officials, community leaders and members;
- (iv) Research agencies, non-governmental organizations etc working in the area in the field of heritage conservation, biodiversity / environment conservation, protection etc., and
- (v) representatives from concerned local government authority and various government departments, as required.

59. It is expected that consultative process will be carried forward to ensure that the affected population and other stakeholders are informed, consulted, and allowed to participate actively in the development process. This will be done throughout the project, during preparation, implementation, and monitoring of project results and impacts. During implementation and monitoring, information will be disseminated to affected persons and other key stakeholders. This information will be prepared in the local language, as required, describing the main project features including the potential environmental impacts and mitigation measures.

## **B. Information Disclosure**

60. Information shall be disclosed through public consultation and making available relevant documents in public locations. The following documents will be submitted by the PCO to ADB for review and disclosure on its website. ADB will disclose upon receipt of acceptable reports and endorsement from the PCO<sup>16</sup>:

- (i) IEE report (including EMP);
- (ii) Updated IEE (including EMP); and
- (iii) Semi-annual environmental monitoring reports, and
- (iv) corrective action plans prepared during project implementation, if any.

61. The PCU/ PIUs will provide relevant safeguard information in a timely manner, in an accessible place and in a form and language understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods will be used. For the benefit of the community, the summary of the IEE will be translated in Nepali and made available at: (i) office of PCO / concerned PIU; and (ii) offices of the contractors. Hard copies of the IEE report will also be available at the PCO / concerned PIU and accessible to citizens as a means of disclosing the document and at the same time creating wider public awareness. Electronic version of the IEE will be placed in the official website of DUDBC after approval of the documents by Government and clearance from ADB. Disclosure will follow ADB's SPS, 2009 and Access to Information Policy, 2018.

## **C. Grievance Redress Mechanism**

62. A project-specific grievance redress mechanism (GRM) will be established to receive, evaluate, and facilitate resolution of affected persons' concerns, complaints, and grievances related to social, environmental, and other concerns on the project. The project adopts a three-tier GR and will ensure greater accountability of the project authorities towards affected persons. Grievances may be routed through letters, emails, text messages, verbal narration, grievance box and registers. The GRM is not intended to bypass the government's own legal process, but to provide a time-bound and transparent mechanism to resolve such concerns that is readily accessible to all segments of the affected persons and community. The aggrieved party shall be free to approach the national legal system at any given time. All costs involved in resolving the complaints (meetings, consultations, communications, and reporting/information dissemination) will be borne by the project.

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<sup>16</sup> Per ADB SPS, 2009, prior to disclosure on ADB website, ADB reviews the "borrower's/client's social and environmental assessment and plans to ensure that safeguard measures are in place to avoid, wherever possible, and minimize, mitigate, and compensate for adverse social and environmental impacts in compliance with ADB's safeguard policy principles and Safeguard Requirements 1-4." Upon its receipt of acceptable safeguard documents and endorsement by PCO, ADB discloses the same on ADB website.

63. PIU will ensure local community meetings are held to notify users and affected persons and other stakeholders about grievance redress mechanism of the project. Awareness of grievance redress procedures will be created through the public awareness campaign, with the help of print and electronic media and radio. The key functions of the GRC are to (i) provide support for affected persons or any aggrieved party to lodge their complaints; (ii) record the complaints; (iii) facilitate grievance resolution in consultation with affected persons and concerned authorities; (iv) report to the aggrieved parties about the decision/solution; and (v) forward the unresolved cases to higher levels.

64. Grievance redress committees (GRCs) will be formed at three levels viz. ward/field level, PIU level and PCO level as under:

65. **First Level GRC (Field/Ward-Level):** The contractors, PIU safeguards personnel can immediately resolve issues on-site in consultation with each other with the support of the designated municipal ward chairperson and will be required to do so within seven days of receipt of a complaint/grievance. In addition, contractors will place complaint boxes at prominent places viz. public places, contractor camp site etc. where local community members can put their complaints/grievances and contractor's personnel should be in charge to collect and process the complaints/grievances as necessary. The PIU safeguards personnel, SDC safeguards consultants and contractor can immediately resolve the complaint on site. If the grievance remains unresolved within the stipulated time, the matter will be referred to the next GRC level. The field/ward-level GRC will comprise of the following:

- (i) Ward Chairperson (Committee Chairperson)
- (ii) PIU Engineer
- (iii) Ward Member representing vulnerable community (one women and one *janjanati* representative, if required)
- (iv) Contractor's Representative
- (v) SDC Safeguards Specialist
- (vi) Ward Chairperson's secretary will act as complaint receiving office and provide secretarial services to GRC.

66. The ward-level GRC shall have at least one women member. For project-related grievances, representatives of affected persons, and community-based organizations will be invited as observers during GRC meetings. In case of impact on indigenous peoples, the grievance team must have representation of the affected indigenous peoples, and or CSOs/NGOs working with the indigenous peoples' groups.

67. **Second Level GRC (Municipality/PIU-Level):** Any unresolved issues at ward level will be referred to the second level GRC chaired by Mayor/Deputy Mayor. The complainant will be notified by the ward-level GRC that the grievance is forwarded to the municipality (PIU) level. All evidence submitted while lodging the complaint by the affected will also be forwarded. After proper examination and verification of the grievances, the committee will facilitate affected persons, and concerned parties to agree on a time-bound action plan to resolve the grievance if found to be valid. The GRC at this level will have to respond to its decision within 14 days of receipt of complaint from first level. The second level GRC will comprise the following:

- (i) Mayor/Deputy Mayor (Committee Chairperson)
- (ii) PIU safeguard personnel
- (iii) SDC social/environment specialist
- (iv) Contractor's representative

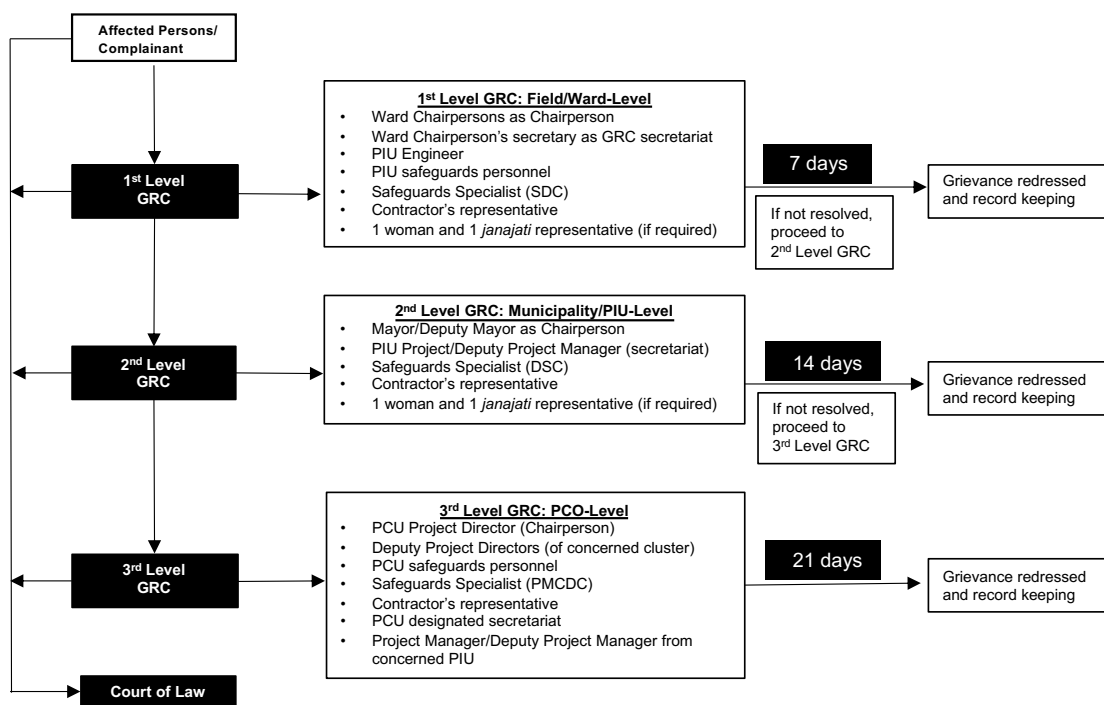
- (v) Ward member representing vulnerable community (one women and one *janjanati* representative, if required)
- (vi) Project manager of the PIU will act as a secretariat.

68. **Third Level GRC (PCO-Level):** If the grievance remains unresolved within the stipulated time, the matter will be referred to the PCO level. The PIU safeguards team will refer any unresolved or major issues to the PCO-level GRC. The PCO-level will comprise the following:

- (i) Project Director (Committee Chairperson)
- (ii) Deputy Project Directors
- (iii) PCO Safeguards Personnel
- (iv) Safeguards Specialist
- (v) Contractor's Representative
- (vi) Project Manager/Deputy Project Manager from concerned PIU/municipality
- (vii) PCO-designated personnel who will act as secretariat.

69. The grievance redress process is represented in Figure 2.

**Figure 2: Grievance Redress Procedures – URLIP**



70. **Record-keeping.** The PIU/PCO/ PMCDC will keep records of grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were affected and final outcome. All complaints should be signed with complete information on name, contact address, phone number if any so that the person can be contacted when required. A sample template is provided in Appendix 4. An acknowledgement to the effect that the complaint has been received by the coordinator's office should be promptly sent to the complainants. All complaints received should be first registered, categorized and prioritized. They should be analysed and assessed the concerns raised by the affected parties and have discussion and consultation with them. Records of all such proceedings



should be maintained, for future reference, and the attendance of all participants with their signature, in particular the complaints and affected groups should be recorded. The number of grievances recorded and resolved, and the outcomes will be displayed/disclosed in the PCO, PIU offices, and on the web, as well as reported in monitoring reports submitted to ADB on a semi-annual basis.

71. **Periodic review and documentation of lessons learned.** The PCO project officers (Social and Environment) will periodically review the functioning of the GRM in each municipality and record information on the effectiveness of the mechanism, especially on the project's ability to prevent and address grievances.

72. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication and reporting/information dissemination) will be borne by the PCO and concerned PIU.

73. **Accountability Mechanism.** Despite the project GRM, an aggrieved person shall have access to the country's legal system at any stage and accessing the country's legal system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM. In the event that the established GRM is not in a position to resolve the issue, the affected person also can use the ADB Accountability Mechanism (AM) through directly contacting (in writing) the Complaint Receiving Officer (CRO) at ADB headquarters or the ADB Nepal Resident Mission (NRM).<sup>17</sup> Before submitting a complaint to the Accountability Mechanism, it is necessary that an affected person makes a good faith effort to solve the problem by working with the concerned ADB operations department and/or NRM. Only after doing that, and if they are still dissatisfied, will the Accountability Mechanism consider the complaint eligible for review. The ADB Accountability Mechanism information will be included in the project-relevant information to be distributed to the affected communities, as part of the project GRM.

## VII. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

### A. Institutional Arrangements

74. The Ministry of Urban Development through the Department of Urban Development and Building Construction will be the executing agency of the project, which will be supported by the Project Management and Capacity Building Consultant (PMCDC), and Institutional Strengthening and Community Participation Consultant (ISPCPC). The PCO will be responsible for the overall management of the project. The municipalities will be the key implementing units of the project. The PIU with the support of the Supervision and Design Consultant (SDC) will be responsible for social safeguards compliance, monitoring, and reporting to ADB.

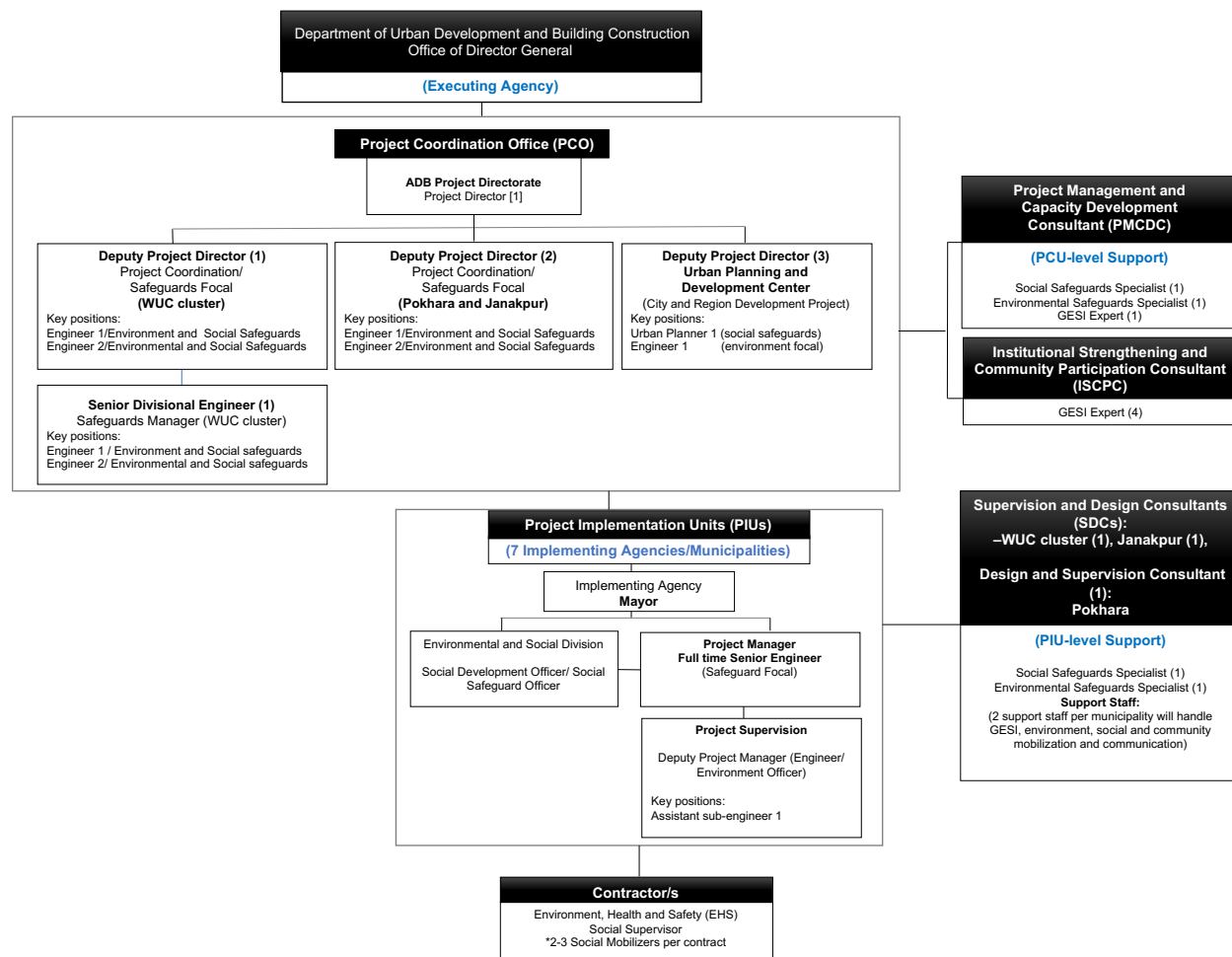
### B. Safeguards Implementation Arrangement

75. **Project Coordination Office (PCO).** The PCO will be headed by a Project Director, who will be responsible for the overall project management. The Project Director shall be supported by three Deputy Project Directors (DPDs) – DPD WUC cluster, DPD Pokhara and Janakpur cluster, and DPD for Urban Planning and Development. The PCO will have an environment safeguards officers of engineer rank, who will be responsible for environmental safeguards compliance, planning, and implementation as per the agreed environmental assessment and

<sup>17</sup> ADB. Accountability Mechanism. <https://www.adb.org/who-we-are/accountability-mechanism/main>

review framework, IEEs and EMPs prepared consistent with the ADB's SPS and GON rules and regulations. Implementation arrangements for safeguards in implementation in URLIP presented in Figure 3.

**Figure 3: Implementation Arrangement for Safeguard Implementation**



76. **Project Coordination Office (PCO).** Roles and responsibilities of PCO (environmental safeguards) are:

- (i) Ensure subprojects comply with the national and local statutory and legal environmental requirements, ADB SPS 2009, EARF and environmental safeguards provisions of the ADB loan covenants;
- (ii) Ensure subprojects conform to exclusion criteria and subproject selection guidelines as stipulated in this EARF;
- (iii) Review and approve the environmental categorization of future subprojects;
- (iv) Engage additional experts (heritage and biodiversity experts) if project conditions warrant such expertise to prepare safeguard documents
- (v) Review and approve subproject IEE reports, including EMPs, and ensure that subproject IEEs and EMPs are updated based on final detailed designs and submit to ADB for review, clearance, and disclosure prior to bid invitation;

- (vi) Ensure that robust chance-find protocol is put in place and implemented properly;
- (vii) Ensure that updated/final IEEs based on final detailed design are provided to the construction contractor prior to start of construction;
- (viii) Ensure that the IEEs including EMPs are updated in case of changes in detailed design that may occur during implementation phase, and submitted to ADB for review, clearance and disclosure;
- (ix) Ensure that IEEs with EMPs are included in bidding documents and civil works contracts;
- (x) Ensure that the requirement for contractors to prepare their respective Health and Safety (H&S) Plans including COVID-19 H&S Plans is included in bidding documents and civil works contracts;
- (xi) Review and approve site-specific EMP (SEMP) of selected contractor;
- (xii) Provide oversight on environmental management aspects of the project, and ensure EMP and SEMP is implemented by contractors;
- (xiii) Establish a system to monitor environmental safeguards of the Project including monitoring the indicators set out in the monitoring plan of the IEE;
- (xiv) Facilitate timely and ensure overall compliance with all national and local government rules and regulations regarding site and environmental permits/clearances/approvals as well as any other environmental requirements as relevant;
- (xv) Review, monitor and evaluate effectiveness with which the EMP, SEMP, and Health and Safety Plan are implemented, and recommend necessary corrective actions to be taken;
- (xvi) With support from PMCDC, consolidate quarterly monitoring reports from the PIUs and submit semi-annual environmental monitoring reports (SEMRs) to ADB;
- (xvii) Ensure availability of budget for safeguards activities;
- (xviii) Ensure adequate awareness campaigns, information disclosure among affected communities and timely disclosure of final IEEs/EMPs and SEMRs, including corrective action plans, if any, in project website and in a form accessible to the public;
- (xix) Address any grievances brought through the grievance redress mechanism (GRM) described in this IEE report in a timely manner;
- (xx) Undertake regular review of safeguards-related loan covenants, and the compliance during project implementation; and
- (xxi) Organize periodic capacity building and training programs on safeguards for stakeholders, PIUs and contractors.

**77. Project Coordination Unit (PCU).** The municipalities will act as the implementing agencies of the project, under the guidance and overall management of the PCO. The roles and responsibilities of the PIU (Environmental Safeguards) are as follows:

- (i) Ensure subprojects comply with the national and local statutory and legal environmental requirements, ADB SPS 2009, EARF and environmental safeguards provisions of the ADB loan covenants;
- (ii) Ensure subprojects location and design confirms with exclusion criteria and subproject selection guidelines as stipulated in this EARF; closely work with design teams to ensure compliance
- (iii) Review subproject IEE reports, including EMPs, and ensure that subproject IEEs and EMPs are updated based on final detailed designs and submit to ADB for review, clearance, and disclosure prior to bid invitation;

- (iv) Ensure compliance with government and ADB requirements on environmental safeguards;
- (v) With support from SDC, review and approve SEMP prepared by contractor;
- (vi) Conduct regular site visits, including spot checks, to ensure the proper implementation of EMP;
- (vii) Review monthly reports from contractor;
- (viii) Prepare Quarterly Reports on all aspects concerning environmental assessment, management, and monitoring obtain approval from PIU and submit approved reports to the PCU;
- (ix) Address any grievances brought about through the GRM as described in the IEE report in a timely manner; and
- (x) Support all other environmental safeguards-related activities and tasks of the PCU as may be needed.

**78. Project Management and Capacity Development Consultants (PMCDC).** PMCDC will provide capacity building support on safeguards, and safeguards compliance in line with ADB procedures. PMCDC will appoint an environmental safeguards specialist to carry out all environmental safeguards related tasks and provide support to PCO safeguards team to oversee the implementation of the safeguards framework/safeguards planning documents. The environmental safeguards specialist will guide the safeguards officers at the PCO and shall coordinate with the SDC's Environmental Safeguards Specialist (PIU-support) for carrying out all social safeguards related tasks. The Environmental Safeguards Specialist (PMCDC) will be responsible for carrying out following tasks:

- (i) Support PCU and PIUs in selecting the output 2 components in compliance with subproject selection criteria; ensure that no components falling under exclusion criteria are considered for implementation under the project
- (ii) Screen and categorize output 2 subprojects based on this EARF;
- (iii) Guide PIUs / prepare the initial environmental examination (IEE) reports including environmental management plans (EMPs) based on design of the subprojects and in accordance with ADB SPS and national laws, regulations, policies and guidelines;
- (iv) Advise PCO in engaging additional experts (heritage and biodiversity) where required if the project conditions warrant
- (v) Support PCU/PIU in obtaining clearances and permissions per GON regulations
- (vi) Update/Finalize the IEE report including EMP based on final detailed design of the subproject and in accordance with ADB SPS and national laws, regulations, policies and guidelines;
- (vii) Conduct due diligence of associated facilities and/or audit of existing facilities, if any, during the detailed design phase, as defined in ADB SPS;
- (viii) Conduct of meaningful consultations and ensure issues/concerns/suggestions raised are incorporated in the design and updated/final IEE report;
- (ix) Ensure relevant provisions from the updated/final IEE report and EMP are incorporated in the bid and contract documents;
- (x) Establish grievance redressal mechanism and ensure members of the grievance committee have the necessary capacity to resolve project-related issues/concerns;
- (xi) Together with the social safeguard experts, conduct safeguards capacity building to ensure PCU and PIU have the capacity to implement, monitor, and report on implementation of EMP, resettlement plans and indigenous peoples plans (if any); and

- (xii) Monitor implementation of EMP at all work sites, including all potential safeguard issues identified in the safeguard documentation mentioned above;
- (xiii) Monitor any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the subproject that were not considered in the IEE report and EMP. Prepare corrective action plans and ensure that these are implemented by the contractor and reported accordingly in environmental monitoring reports to ADB; and
- (xiv) Undertake all other tasks to ensure the subproject complies with ADB SPS and national environmental laws, rules, and regulations.

79. **Supervision and Design Consultant (SDC).** Two SDCs will be established – (i) the WUC cluster, covering Devdaha, Siddharthnagar, Tilottama, Sainamaina and Lumbini; and (ii) Janakpur. SDCs will be responsible to support the PIU in the implementation and monitoring of safeguards compliance. They will also be responsible to prepare Output 2 designs, prepare safeguards documents in line with the EARF for Output 2 components. The SDCs will be supported by two support staff per municipality who will handle gender, environment and social safeguards, community mobilization, and communication.

80. **Design Supervision Consultant (DSC).** The DSC will support Pokhara municipality in the design and supervision of infrastructure and greens solutions, implementing heritage and cultural improvement plans, and design of tourism infrastructure components. The DSC environmental safeguards specialist will be involved in detailed design and safeguards documents preparation of output 2 components.

81. The key environmental safeguards tasks of SDC and DSC include:

- (i) Work closely with technical teams, and assist PIUs in selecting the output 2 components in compliance with subproject selection criteria; ensure that no components falling under exclusion criteria are considered for implementation under the project
- (ii) Prepare categorization checklists and assist in categorization of the project output 2 components in respective municipality
- (iii) Update/Finalize the initial environmental examination (IEE) report including environmental management plans (EMP) based on final detailed design of the subproject and in accordance with ADB SPS and national laws, regulations, policies and guidelines;
- (iv) Conduct due diligence of associated facilities and/or audit of existing facilities, if any, during the detailed design phase, as defined in ADB SPS;
- (v) take proactive action to anticipate and avoid delays in implementation;
- (vi) under the guidance of PMCDC, develop system of indicators to monitor implementation of resettlement activities and ensure corrective actions are undertaken, if and as required;
- (vii) obtain environmental safeguard related information with the help of field support staff and consolidate them; prepare periodic environmental safeguard monitoring reports;
- (viii) compile all monitoring inputs at PIU level for quarterly progress reports, for onward transmission to PCU and PMCDC;
- (ix) assist PIUs in conducting public consultation and disclosure activities related to social safeguards; and
- (x) actively participate, assist in resolving all grievance redress activities; and support ISCBC in all training and capacity building activities.

82. **Civil Works Contract and Contractor.** The IEE with EMP will form part of bidding and contract documents and verified by PMU. The Contractor will be required to designate an Environment, Health and Safety (EHS) Officer (or equivalent) with relevant qualifications and adequate experience to ensure implementation of EMP during construction period. Contractor is to carry out all environmental mitigation and monitoring measures outlined in their contract and the IEE. The Contractor will be required to submit to PIU, for review and approval, a SEMP including (i) proposed sites/locations for construction work camps, storage areas, hauling roads, lay down areas, disposal areas for solid and hazardous wastes; (ii) specific mitigation measures following the approved EMP; (iii) monitoring program per EMP; and (iv) budget for SEMP and EMP implementation. No works can commence until SEMP is approved by PIU.

83. Specifically, the Contractor will have the following responsibilities, among others that will be included in the bid and contract documents.

- (i) Ensure that the infrastructure development works are carried out in an environmentally friendly manner, minimizing environmental impacts while ensuring the health and safety of all its workers and the minimizing disturbance to the surrounding environment and communities;
- (ii) Consideration of ADB SPS, national regulations and the EMP during bid preparation and cost estimation;
- (iii) Appoint a full time EHS Officer with relevant qualifications and adequate experience to carryout responsibilities for complying with the ADB SPS requirements, national regulations and the EMP. The officer/staff must have a clear term of reference and responsibilities to ensure proper management of environmental issues;
- (iv) Ensure regular reporting to the PIU on work progress and alert management on any potential issues or delays;
- (v) Strictly follow COVID 19 protocols and other COVID-19 related instructions issued by the GoN at all construction sites and campsites and provide periodic reports to PIU on its compliance;
- (vi) Obtain the necessary permits and clearances, if any is required for the contractor, to implement the subproject;
- (vii) Ensure that all worker recruitment and OHS requirements are complied with;
- (viii) Take necessary corrective action to rectify any non-conformance, including actions related to grievances;
- (ix) Institute an emergency plan for natural calamities/disasters and accidents at the site; and
- (x) Follow chance finds procedures to discovery of any physical cultural artifact.

84. A copy of the EMP/approved SEMP will be kept on-site during the construction period at all times. Non-compliance with, or any deviation from, the conditions set out in the EMP/SEMP constitutes a failure in compliance and will require corrective actions.

85. PCU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with: (i) all applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste; and (c) elimination of forced labor; and with (ii) the requirement to disseminate information on sexually transmitted diseases, including HIV/AIDS, to employees and local communities surrounding the proposed project sites

### C. Institutional Capacity Development Program

86. The PMCDC Environment Specialist, with the support of DSC / DSC environmental specialists, will be responsible for training the PCU, PIU, PMCDC, DSC and SDC technical staff and contractors. Training modules will need to cover safeguards awareness and management in accordance with both ADB and government requirements as specified below:

- (i) Environmental Safeguards
  - (a) sensitization on ADB's safeguard policy on environment;
  - (b) introduction to environment and environmental considerations in tourist related projects related to natural and cultural heritage;
  - (c) environmental assessment and review framework (EARF) provisions and application for Output 2 components of URLIP
  - (d) heritage impact assessment and biodiversity impact assessment
  - (e) Subproject selection criteria and exclusion criteria
  - (f) Preparation and review of IEEs and integration into the project detailed design;
  - (g) Government of Nepal environmental regulatory framework
  - (h) monitoring and reporting system.

87. **Methodology.** The capacity building program will be participatory to the extent possible to make it more effective and will be achieved through combination of practical methodologies available such as lectures and workshops, learning by doing, role playing, group exercises, training by experts, on-the-job training and mentoring, and continuing team meetings and exercises. The PMSC Environment Specialist will spearhead the designing of specific programs appropriate for the target participants or stakeholders, including the execution of these programs during the different implementation phases of the project. Pre-training and post-training assessment will be an integral part of the overall program to measure its effectiveness, and identify any other needed interventions to improve effectiveness, if necessary.

88. As fundamental component for the capacity building program, basic lectures and seminar training sessions will be provided by the PMCDC, DSC and SDC Environment Specialists to strengthen the awareness of project stakeholders on the requirements of ADB SPS and government environmental laws, rules and regulations. Modules will be prepared and customized based on the skills set and needs of the different stakeholders. The entire training will cover basic principles of environmental assessment and management mitigation plans and programs, implementation techniques, monitoring methods and tools. PMCDC environmental specialist will prepare a training and capacity building plan on environmental safeguards.

## VIII. MONITORING AND REPORTING

89. DUDBC will oversee the implementation of EARF for URLIP output 2 components. PCO will implement EARF and comply with its procedures and will ensure that subproject exclusion criteria are complied with. Compliance to EARF criteria will be attached to Categorization form and IEE and submitted to ADB.

90. PCO, with the assistance of PMCDC, will monitor and measure the progress of EMP implementation. The monitoring activities will correspond with the project's risks and impacts. In addition to recording information on the work and deviation of work components from original

scope, PMU, PIUs, PMCDC, and SDC/DSC will undertake site inspections and document review to verify compliance with the EMP and progress toward the final outcome.

91. Prior to commencement of the work, the contractors will submit a compliance report to PIU ensuring that all identified pre-construction environmental impact mitigation measures as detailed in the EMP will be undertaken. PIU with the assistance of the SDC/DSC will review the report and thereafter PIU will allow commencement of works.

92. During construction, results from internal monitoring by the Contractor will be reflected in their monthly EMP implementation reports submitted to the. DSC/SDC environmental specialists will review and advise contractors for corrective actions if necessary. Quarterly reports summarizing compliance and corrective measures, if any, taken will be prepared by PIU with the assistance of environmental specialist of DSC/SDC and submitted to PCO.

93. In the event of detecting unanticipated environmental impacts during implementation, PCO will take following actions: If the unanticipated impacts are not considered significant during implementation, the PCO shall prepare a corresponding time-bound and budgeted corrective action plan acceptable to ADB and ensure that these are implemented by the contractor/s and reported accordingly in environmental monitoring reports to ADB. If unanticipated environmental impacts deemed as significant become apparent during project implementation, the PCO will: (i) inform and seek ADB's advice; (ii) assess the significance of such unanticipated impacts; (iii) evaluate the options available to address them; and (iv) update the IEE including EMP. ADB will help the borrower mobilize the resources required to mitigate any adverse unanticipated impacts or damage.

94. Quarterly report shall be prepared by CMSC and PIU and submitted to PCO for review and further actions. The quarterly report shall include the Quarterly Progress Report checklist to ensure completeness of safeguards requirements.

95. Based on monthly and quarterly reports and measurements, PMCDC will draft semi-annual reports and submit to PCO for their review and further submission to ADB (see Appendix 4). Once concurrence from the ADB is received the report will be disclosed in the project website.

96. ADB will review project performance against the DUDBC commitments as agreed in the legal documents. The extent of ADB's monitoring and supervision activities will be commensurate with the project's risks and impacts. Monitoring and supervising of social and environmental safeguards will be integrated into the project performance management system. ADB will monitor projects on an ongoing basis until a project completion report is issued. ADB will carry out the following monitoring actions to supervise project implementation:

- (i) conduct periodic site visits for projects;
- (ii) conduct supervision missions with detailed review by ADB's safeguard Specialists /officers or consultants for projects with significant adverse social or environmental impacts;
- (iii) review the periodic monitoring reports submitted by DUDBC/PCO to ensure that adverse impacts and risks are mitigated, as planned and agreed with ADB;
- (iv) work with PCO to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to re-establish compliance as appropriate; and
- (v) prepare a project completion report that assesses whether the objective and desired outcomes of the safeguard plans have been achieved, taking into account



the baseline conditions and the results of monitoring.

81. ADB's monitoring and supervision activities are carried out on an ongoing basis until a Project Completion Report (PCR) is issued. Thus, semi-annual monitoring report, which may cover O&M of completed packages, will be submitted to ADB until PCR is issued. ADB issues a PCR within 1-2 years after the project is physically completed and in operation.

### Appendix 1: Environmental Standards

1. **National Ambient Air Quality Standards for Nepal, 2003.** As shown in the table below, the air quality standards for Nepal have set standards for 7 parameters: total suspended particles(TSP), PM<sub>10</sub>, Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Oxide (NO<sub>2</sub>), Carbon Monoxide (CO), Lead (Pb) and Benzene.
2. The World Health Organization (WHO) Air Quality Guidelines has set quality standards for 4 parameters PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>2</sub>. According to ADB SPS 2009, when host country regulations differ from international levels and measures, the project will achieve whichever is more stringent. Both policies provide guidelines and comply with the more stringent standards during construction period.

**Standards for Ambient Air Quality for both GoN and WHO**

Parameter	Averaging Period*	Nepal's Ambient Air Quality Standard, 2003**(µg/m <sup>3</sup> )	WHO Air Quality Guidelines (µg/m <sup>3</sup> )		Standard values to be followed by URLIP subprojects, whichever are applicable <sup>^^^</sup> (µg/m <sup>3</sup> )
			Global Update <sup>^</sup> 2005	Second Edition <sup>^^</sup> 2000	
TSP	Annual	-	-	-	-
	24-hour	230	-	-	230
PM <sub>10</sub>	Annual	-	20	-	20
	24-hour	120	50	-	50
PM <sub>2.5</sub>	1-year	-	10	-	10
	24-hour	-	25	-	25
SO <sub>2</sub>	Annual	50	-	-	50
	24-hour	70	20	-	20
	10-minute	-	500	-	500
NO <sub>2</sub>	1-year	40	40	-	40
	24-hour	80	-	-	80
	1-hour	-	200	-	200
CO	8-hour	10,000	-	10,000	10,000
	15-minute	100,000	-	100,000	100,000
Pb	1-year	0.5	-	0.5	0.5
Benzene	1-year	20	-	-	20

\* Due to short term duration of civil works, the shortest period will be more practical to use.

\*\* as implementing rules on ambient air quality standards under the Environmental Protection Act, 1997. Summary available from Environment Statistics of Nepal 2011, Government of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics, Kathmandu, Nepal.

<sup>^</sup> Source: Environmental, Health and Safety General Guidelines, 2007. International Finance Corporation, World Bank Group.

<sup>^^</sup> Source: Air Quality Guidelines for Europe, Second Edition, 2000; WHO Regional Office for Europe, Copenhagen

<sup>^^^</sup> Subject to capacity of executing agency to do the test, including the availability of facilities to do the test in the country.

## Standards for noise levels for both GoN and WHO

Receptor/ Source	National Noise Standard Guidelines, 2012* (dB)		WHO Guidelines Value For Noise Levels Measured Out of Doors** (One Hour LA <sub>9</sub> in dBA)		Standard values to be followed by UWSSP subprojects, whichever are applicable (dB)
	Day	Night	07:00 – 22:00	22:00 – 07:00	
Industrial area	75	70	70	70	70 for day time 70 for night time
Commercial area	65	55			65 for day time 55 for night time
Rural residential area	45	40	55	45	45 for day time 40 for night time
Urban residential area	55	50	55	45	55 for day time 45 for night time
Mixed residential area	63	55	55	45	55 for day time 45 for night time
Quiet area	50	40	-	-	50 for day time 40 for night time
Water Pump	65		-		65
Diesel generator	90		-		90

\* as implementing rules on noise standard guidelines under Environmental Protection Act, 1997.

\*\* Guidelines for Community Noise, WHO, 1999. Source: Environmental, Health and Safety General Guidelines, 2007. International Finance Corporation, World Bank Group.

## National Drinking Water Standards, 2006

Group	National Drinking Water Quality Standards, 2006*			WHO Guidelines for Drinking- Water Quality, 4 <sup>th</sup> Edition, 2011**	Standard values to be followed by UWSSP subprojects, whichever are applicable <sup>^^^</sup>
	Parameter	Unit	Max. Concentration Limits		
Physical	Turbidity	NTU	5(10) ***	-	5(10) ***
	pH		6.5 – 8.5	none	6.5 – 8.5
	Color	TCU	5 (15)	none	5 (15)
	Taste and Odor		Would not be objectionable	-	Would not be objectionable
	TDS	mg/l	1000	-	1000
	Electrical Conductivity	µc/cm	1500	-	1500
	Iron	mg/l	0.3 (3)	-	0.3 (3)
	Manganese	mg/l	0.2	-	0.2
	Arsenic	mg/l	0.05	0.01	0.01
	Cadmium	mg/l	0.003	0.003	Same
	Chromium	mg/l	0.05	0.05	0.05
	Cyanide	mg/l	0.07	none	0.07
	Fluoride	mg/l	0.5 – 1.5 ^	1.5	0.5 – 1.5 ^
	Lead	mg/l	0.01	0.01	0.01
	Ammonia	mg/l	1.5	none established	1.5
Chemical	Chloride	mg/l	250	none established	250
	Sulphate	mg/l	250	none	250
	Nitrate	mg/l	50	50	50
	Copper	mg/l	1	2	1

Group	National Drinking Water Quality Standards, 2006*			WHO Guidelines for Drinking-Water Quality, 4 <sup>th</sup> Edition, 2011**	Standard values to be followed by UWSSP subprojects, whichever are applicable <sup>^^^</sup>
	Parameter	Unit	Max. Concentration Limits		
	Total Hardness	mg/l	500	-	500
	Calcium	mg/l	200	-	200
	Zinc	mg/l	3	none established	3
	Mercury	mg/l	0.001	0.006	0.001
	Aluminium	mg/l	0.2	none established	0.2
	Residual Chlorine	mg/l	0.1 - 0.2	5 ^^	0.1 - 0.2
Micro Germs	E-coli	MPN/100ml	0	Must not be detectable in any 100 ml sample	0
	Total Coliform	MPN/100ml	0 in 95% of samples taken		0 in 95% of samples taken

\* as the implementing rules on drinking water quality standards under Water Resources Act, 1992

\*\* Health-based guideline values

\*\*\* Figures in parenthesis are upper range of the standards recommended.

^ These standards indicate the maximum and minimum limits.

^^ From WHO (2003) Chlorine in Drinking-water, which states that this value is conservative.

^^^ Subject to capacity of executing agency to do the test, including the availability of facilities to do the test in the country.

#### Tolerance Limits for Wastewater to be Discharged into Inland Surface Waters from Combined Wastewater Treatment Plant, 2004\*

Parameters	Unit	Tolerance Limit <sup>^</sup>
TSS	mg/L	50
Particle size of suspended particles		Shall pass 850-micron sieve
pH		5.5 – 9.0
Temperature		Shall not exceed 40 °C in any section of the stream within 15 m downstream from the effluent outlet.
BOD5 at 20°C	mg/L	50
Oil & grease	mg/L	10
Phenolic compounds	mg/L	1
Cyanides (as CN)	mg/L	0.2
Sulphides (as S)	mg/L	2
Radioactive materials		
Alpha emitters	c/ml	10 <sup>-7</sup>
Beta emitters	c/ml	10 <sup>-8</sup>
Insecticides		Absent
Total residual chlorine		1
Fluorides (as F)	mg/L	2
Arsenic (as As)	mg/L	0.2
Cadmium (as Cd)	mg/L	2
Hexavalent Chromium (as Cr <sup>+6</sup> )	mg/L	0.1
Copper (as Cu)	mg/L	3
Lead (as Pb)	mg/L	0.1
Mercury (as Hg)	mg/L	0.01
Nickel (as Ni)	mg/L	3

Parameters	Unit	Tolerance Limit <sup>^</sup>
Selenium (as Se)	mg/L	0.05
Zinc (as Zn)	mg/L	5
Ammonical nitrogen	mg/L	50
COD	mg/L	250
Silver	mg/L	0.1

\* as implementing rules on effluent standards under Environmental Protection Act, 1997. Summary available from Environment Statistics of Nepal 2011, Government of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics, Kathmandu, Nepal.

<sup>^</sup> Subject to capacity of executing agency to do the test, including the availability of facilities to do the test in the country.

3. **Emission standard for diesel generator EPR-14, 2020.** The emissions standards set for new DGs imports is equivalent to Bharat Stage III standards, and for in-use DGs is equivalent to Bharat S Inventories and Black Carbon Emissions in Kathmandu Valley, Nepal. Emissions standards are set for 4 major pollutants: CO, HC, NO<sub>x</sub>, and PM.

## Appendix 2: Rapid Environmental Assessment Checklists

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

**Country/Project Title:**

**Sector Division:**


Screening Questions	Yes	No	Remarks
<b>A. Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Legally protected Area (core zone or buffer zone)			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Special area for protecting biodiversity.			
<b>B. Potential Environmental Impacts</b> 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)?			

Screening Questions	Yes	No	Remarks
▪ 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?			
▪ 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 STIs 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?			

Screening Questions	Yes	No	Remarks
▪ 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?			
▪ generation of solid waste and/or hazardous waste?			
▪ use of chemicals?			
▪ generation of wastewater during construction or operation?			



### A Checklist for Preliminary Climate Risk Screening

**Country/Project Title:**

**Sector:**

**Subsector:**

**Division/Department:**

Screening Questions		Score	Remarks <sup>18</sup>
<b>Location and Design of project</b>	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather-related events such as floods, droughts, storms, landslides?		
	Would the project design (e.g., the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc.)?		
<b>Materials and Maintenance</b>	Would weather, current, and likely future climate conditions (e.g., prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current, and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?		
<b>Performance of project outputs</b>	Would weather/climate conditions, and related extreme events likely affect the performance (e.g., annual power production) of project output(s) (e.g., hydro-power generation facilities) throughout their design lifetime?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

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

<sup>18</sup> If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

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

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

### Appendix 3: Outline of an ADB IEE

#### Executive Summary

- I. Introduction
  - A. Background
- B. Purpose of the Initial Environment Examination
  - C. Methodology
  - D. Structure of IEE Report
- II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK
  - A. ADB Safeguard Policy Statement 2009
  - B. National Environmental Impact Assessment Law
  - C. Application for Environmental Clearance
  - D. Applicable Environmental Standards
  - E. Other Relevant National Laws
  - F. International Environmental Agreements
- III. Description of the Subproject
  - A. Subproject Location and Area
  - B. Subproject Scope and Components
  - C. Construction schedule
- IV. Analysis of alternatives
- V. Description of baseline environment
  - A. Subproject Location
  - B. Physical Environment
  - C. Biodiversity
  - D. Socio-economic environment
- VI. Anticipated Impacts and mitigation measures
  - A. Impacts During Design Phase
  - B. Impacts and mitigation measures during Construction Phase
  - C. Impacts and mitigation measures during Operation Phase
- VII. Public consultation and information disclosure
  - A. Public consultation
  - B. Key target stakeholders
  - C. Public Consultations Conducted
  - D. Findings of the Public Consultation
  - E. Information Disclosure
- VIII. Grievance Redress Mechanism
- IX. Environmental Management Plan
  - A. Institutional Arrangement
  - B. Environmental Management Plan (EMP)
  - C. Environmental Monitoring Program
  - D. Capacity Development Training
  - E. Environmental Management and Monitoring Plan Implementation Cost (Indicative)
- X. Monitoring and Reporting
- XI. Conclusion and recommendation

## Appendix 4: Sample Semi-Annual Environmental Monitoring Report Template

### 1. Introduction

- Overall project description and objectives
- Environmental category as per ADB Safeguard Policy Statement, 2009

### 2. Project Safeguards Team

- Identify the role/s of Safeguards Team including schedule of on-site verification of reports submitted by consultants and contractors.

Name	Designation/Office	Email Address	Contact Number
1. PMU			
2. PIUs			
3. Consultants			

### 3. Overall project and subproject/package progress and status

- Indicate (i) status of design – preliminary design or final design, (ii) status of implementation - under bidding, contract awarded but no works yet, contract awarded with works, civil works completed, or O&M

Package Number	Components/List of Works	Type of Contract (specify if DBO, DB or civil works)	Status of Implementation (specify if Preliminary Design, Detailed Design, On-going Construction, Completed Works, or O&M phase) <sup>1</sup>	Contract Status (specify if under bidding or contract awarded)	If On-going Construction	
					%Physical Progress	Expected Completion Date

- For package with awarded contract, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

### Package-wise Contractor/s' Nodal Persons for Environmental Safeguards

Package Name	IEE Cleared by ADB (provide date)	Contractor	HSE Nodal Person	Email Address	Contact Number

#### 4. Status of IEE per Subproject/Package

- Provide status of updated/final IEE<sup>[2]</sup> per package.

### Package-wise Implementation Status

Package Number	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? <sup>[3]</sup> (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Submitted to ADB (provide date of submission)	Disclosed on project website (provide link)	Final IEE provided to Contractor/s (Yes/No)		

#### 5. Compliance status with National/State/Local statutory environmental requirements<sup>[4]</sup>

Package No.	Statutory Environmental Requirements <sup>[5]</sup>	Status of Compliance (Specify if obtained, submitted and awaiting approval, application not yet submitted)	Validity Date(s) (if already obtained)	Action Required	Specific Conditions that will require environmental monitoring <sup>[6]</sup>

#### 6. Compliance status with environmental loan covenants

Schedule No. and Item (see Project Loan Agreement and list provisions relevant to environmental safeguards, core labor standards and occupational health and safety)	Covenant	Status of Compliance	Action Required

#### 7. Compliance status with the environmental management plan (refer to EMP tables in approved IEE/s)

- Confirm in IEE/s if contractors are required to submit site-specific EMP (SEMP)/construction EMPs (CEMP). If not, describe the methodology of monitoring each package under implementation.
- Provide over-all compliance of the contractors with SEMP/CEMP. This should be supported by contractors' monthly monitoring reports to PIU(s) and/or verification reports of PIU(s) or project consultants. Include as appendix supporting documents such as **signed** monthly environmental site inspection reports prepared by consultants and/or contractors.

#### Overall Compliance with SEMP/CEMP

Package No.	Status of SEMP/CEMP Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required

- Provide description based on site observations and records:
  - Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
  - Identify muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads.
  - Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these were intact following heavy rain;
  - Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area.
  - Confirm spill kits on site and site procedure for handling emergencies.
  - Identify any chemical stored on site and provide information on storage condition. Attach photograph.
  - Describe management of stockpiles in each work site (construction materials, excavated soils, spoils, etc.). Provide photographs.
  - Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
  - Provide information on barricades, signages, and on-site boards. Provide photographs.
  - Provide information on workers labor camp(s). Provide photographs.
  - Provide information on work-related accidents and incidents. Describe actions implemented.
  - Provide information on if there are any activities being undertaken out of working hours and how that is being managed.
- Provide list of trainings on environmental safeguards, core labor standards, and OSH conducted during the reporting period. Include ADB-organized workshop, trainings, seminars, etc.)

### Trainings, Workshops and Seminars Conducted

Date	Topic	Conducted by	No. of Participants (Total)	No. of Participants (Female)	Remarks

Provide the monitoring results as per the parameters outlined in the approved EMP (or site-specific EMP/construction EMP when applicable).

### Summary of Environmental Monitoring Activities (for the Reporting Period)<sup>[7]</sup>

Impacts (List from SEMP/CEMP)	Mitigation Measures (List from SEMP/CEMP)	Parameters Monitored (As identified in the SEMP/CEMP)	Method of Monitoring (Visual, Actual Sampling, etc)	Location of Monitoring (Provide GPS Coordinates) <sup>[8]</sup>	Date of Monitoring Conducted	Person Who Conducted the Monitoring
<b>Design Phase</b>						
<b>Pre-Construction Phase</b>						
<b>Construction Phase</b>						
<b>Operational Phase</b>						

## 8. Monitoring of environmental IMPACTS on PROJECT SURROUNDINGS

- Confirm records of pre-work condition of roads, agricultural land or other infrastructure prior to starting to transport materials and construction.

Package No.	Status of Pre-Work Conditions (Recorded / Not Recorded)	Baseline Environmental Conditions (air, water, noise) Documented (Yes / No)	Action Proposed and Additional Measures Required

- Provide information on monitoring activities conducted during reporting period. If not conducted, provide justification. Compare results with baseline and internationally recognized standards.<sup>[9]</sup>

**Air Quality Monitoring Results**

Site No.	Date of Testing	Site Location (Provide GPS Coordinates) <sup>[10]</sup>	Parameters (as required by statutory clearances or as mentioned in the IEE)			Remarks
			PM10 µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	

**Water Quality Monitoring Results**

Site No.	Date of Sampling	Site Location	Parameters (as required by statutory clearances or as mentioned in the IEE)						Remarks
			pH	Conductivity µS/cm	BOD mg/L	TS mg/L	TN mg/L	TP mg/L	

**Noise Quality Monitoring Results**

Site No.	Date of Testing	Site Location	LA <sub>eq</sub> (dBA) (as required by statutory clearances or as mentioned in the IEE)		Remarks
			Day Time	Night Time	

**9. Information Disclosure and Consultations**

- Confirm PMU/PIU/contractors provide project-related information to stakeholders, communities and/or affected people before and during construction works.<sup>[11]</sup>  
Provide information on consultations conducted during reporting period such dates, topics discussed, type of consultation, issues/concerns raised, safeguards team member present. Attach minutes of meetings (ensure English translation is provided), attendance sheet, and photos.

Date of Consultation	Location	Number of Participants (specify total, male and female)	Issues/Concerns Raised	Response to issues/concerns

**10. Grievance Redress Mechanism**

- Grievance Redress Mechanism.** Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-



related issues/complaints. Include as appendix Notification of the GRM (package-wise if applicable).

- **Complaints Received during the Reporting Period.** Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).

### 11. Summary of Key Issues/Concerns Identified During the Reporting Period and Remedial Actions

- Provide corrective action plan which should include all issues/concerns, actions required to be implemented, responsible entities, and target dates.

### 12. Status of Corrective Actions from Previous SEMR(S)

- Provide information on corrective actions to be implemented as reported in the previous SEMR(s). Include status of implementation of feedbacks/comments/suggestions as provided by ADB, if any.

**Corrective Action Plan Status**

Issues/Concerns	Corrective Action	Status	Remarks

### 13. Appendixes

- Photos
- Records of consultations
- Copies of environmental clearances and permits (if not provided in the previous SEMR)
- Environmental site inspection report (if not provided in the previous SEMR)
- Other

<sup>[1]</sup> If on-going construction, include %physical progress and expected date of completion.

<sup>[2]</sup> IEE prepared based on preliminary design and cleared by ADB with condition that updated/Final IEE based on detailed design will be submitted.

<sup>[3]</sup> Works will not be allowed until SEMP/CEMP is approved by project implementation unit or project management unit.

<sup>[4]</sup> All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the "remarks" column.

<sup>[5]</sup> Specify statutory requirements: environmental clearance? Permit/consent to establish? Forest clearance? Workers/Labor permit, etc.

<sup>[6]</sup> Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 2 trees for every tree, etc.

<sup>[7]</sup> Attach Laboratory Results and Sampling Map/Locations

<sup>[8]</sup> If GPS coordinate is not available, provide landmark(s) and/or chainage.

<sup>[9]</sup> ADB Safeguard Policy Statement (SPS) Appendix 1, para 33: During the design, construction, and operation of the project the borrower/client will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines. These standards contain performance levels and measures that are normally acceptable and applicable to projects. When host country regulations differ from these levels and measures,

the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in the SPS.

<sup>[10]</sup> If GPS coordinate is not available, provide landmark(s) and/or chainage.

<sup>[11]</sup> Check EMP requirement on information disclosure. At a minimum, PIU thru the contractor should notify communities/affected persons/sensitive receptors 7 days and again 1 day before start of works.