

Environmental Assessment and Review Framework

Project Number: 52313-001
November 2018

PHI: Emergency Assistance for Reconstruction and
Recovery of Marawi

Output 2: Connectivity Reestablished

ABBREVIATIONS

ADB	–	Asian Development Bank
CNC	–	certificate of non-coverage
CSC	–	construction supervision consultant
DAO	–	DENR Administrative Order
DED	–	detailed engineering design consultant
DENR	–	Department of Environment and Natural Resources
DEO	–	District Engineering Office of the DPWH
DGRC	–	District Grievance Redress Committee
DOF	–	Department of Finance
DPWH	–	Department of Public Works and Highway
EA	–	executing agency
EARF	–	environmental assessment and review framework
ECC	–	environmental compliance certificate
ECA	–	environmentally critical area
ECP	–	environmentally critical project
EIA	–	environmental impact assessment
EIS	–	environmental impact statement
EMB	–	environmental management bureau
EMP	–	environmental management plan
ESSD	–	environment and social safeguards division of DPWH
GRM	–	grievance redress mechanism
IEE	–	initial environmental examination
IEEC	–	initial environmental examination checklist report
IEER	–	initial environmental examination report
LGU	–	local government unit
PEISS	–	Philippine Environmental Impact Statement System
PMU	–	project management unit
SPS	–	ADB Safeguard Policy Statement, 2009

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I. INTRODUCTION

1. The Asian Development Bank (ADB) is considering a \$400 million emergency assistance loan (ERMM) to the Government of the Philippines for providing fiscal support and to support the recovery of Marawi city, Greater Marawi Area and Malabang (50 km south of Marawi) affected by the recent conflict. The loan will be funded from ADB's ordinary capital resources and the grants will be provided by the and the Japan Fund for Poverty Reduction (JFPR). The ADB assistance comprises a \$400 million loan, roughly split into \$300 million for fiscal support with no safeguards issues (Output 1), a \$100 million for investments through DPWH (Output 2), a \$5 million Marawi Recovery Grant from the Urban Climate Change Resilience Trust Fund (UCCRTF) (Output 3), and a \$5 million JFPR funded Restoring Livelihoods and Learning in Marawi project (Output 4).

2. The Philippine government, through its National Economic and Development Authority (NEDA), requested support from ADB in the reconstruction, recovery and rehabilitation of the area. Initially, following the Post Conflict Needs Assessment (PCNA) finalized at the end of 2017 fully supported by both the ADB and World Bank, ADB support was aimed at providing NEDA with consultancy services for the Bangon Marawi Comprehensive Rehabilitation and Recovery Program (BMCRRP). The BMCRRP, which was finalized in June 2018, aims to formulate rehabilitation and recovery programs, projects and activities (PPAs) to rebuild the livelihood of those affected by the Marawi Crisis in and around Marawi City.

3. Through the BMCRRP the government commits to deliver rehabilitation-focused programs, projects and activities to restore the lifelines of the affected communities. The identified PPAs are broadly classified into sectors that include: (i) Local Governance and Peace-building, (ii) Housing and Settlement, (iii) Livelihood and Business Development, (iv) Physical Infrastructure, (v) Social Services, and (vi) Land Resource Management. ADB's assistance will contribute to road construction and associated PPAs identified under the physical infrastructure sector.

4. The proposed project is aligned with ADB's Disaster and Emergency Assistance Policy by assisting the government restore and rebuild economic, social and governance activities in the terrorism-affected communities. It is also aligned with ADB's sector and thematic assessments, which stress strengthening capacity for disaster risk management, and promoting gender equality and women's empowerment. ADB has closely coordinated with the government and other development partners in the design of the project as well as in rehabilitation and recovery efforts. The project is consistent with the government's BMCRRP.

5. The loan will only finance activities that:

- (i) Are included in the BMCRRP;
- (ii) Are related to the repair, upgrade, rehabilitation, reconstruction or otherwise improvement of roads and bridges, and drainage;
- (iii) DPWH has been granted the responsibility to implement;
- (iv) Located in (i) Marawi city, Saguiaran or Piagapao, or (ii) along a national highway in Mindanao and providing essential connectivity to Marawi City;
- (v) Technically feasible, as evidenced by a preliminary or detailed design;
- (vi) Economically viable, with an economic internal rate of return equal to or greater than 10%;
- (vii) Security conditions enable safe preparation and implementation of the works;

- (viii) Estimated subproject implementation period is within the overall project implementation timeframe; and
- (ix) No duplication of funding.

6. Under **Output 1**, the project has a \$300 million fiscal support output. It is not expected that the fiscal support outputs will lead to safeguard impacts. However, if the fiscal support is used for any activity that will have environmental impacts within the meaning of ADB's Safeguard Policy Statement, the SPS requirements including this EARF will apply and an initial environmental examination (IEE) or environmental impact assessment (EIA) must be prepared in line with this framework.

7. **Output 2** will support construction and/or reconstruction/rehabilitation of infrastructure such as roads, drainage, bridge and viaduct. This EARF will serve as a guide to ensure compliance with the environmental assessment requirements under ADB's Safeguards Policy Statement, 2009 (SPS). Output 2 will finance the following potential projects:

- a. Rehabilitation/reconstruction of 20.5 km of Transcentral Roads (Phase 3)
- b. Drainage works:
 - i. construction of Main Outlet Drainage System, Phase I
 - ii. rehabilitation/improvement of the 2-km Beyaba Damag Open Channel (5.0 m x 2.0 m) in Barangays Basak Malutlut, Biaba Damag, and Cadayonan
 - iii. construction of main drainage outlet Bangon-Luksadatu Lake Lanao Phase II, Marawi City (Barangays Bangon and Luksadatu)
- c. Construction of slope protection works along Marawi-Bito Road, Marawi City (Barangay Emie Punud)
- d. Construction of permanent Rorogagus Bridge (95 m) in Brgys. Rorogagus Proper and Rorogagus East
- e. Construction of Malabang Viaduct (1.6 km)

8. **Output 3** consists of two components, namely the water supply and the health components. A separate EARF has been prepared for this output.

9. **Output 4** is not anticipated to have environmental implications. Output 4 is composed of four components which will provide immediate financing to improve social services and livelihoods of affected persons. The first component will complement and scale up delivery of the Department of Labor and Employment (DOLE) Emergency Employment Program in Marawi and neighboring municipalities reaching 4,000 beneficiaries. The second component will support 2,000 beneficiaries in accessing livelihood programs, patterned on the DOLE Integrated Livelihood Program (DILP) and Department of Trade and Industry's (DTI) Shared Services Facility Program (SSFP). The third component will restore quality education by (i) equipping Department of Education (DepEd) identified schools and temporary learning spaces with furniture and learning and teaching materials; (ii) providing capacity development for teachers to offer psycho-social support for children, youth, and their families; (ii) supporting the DepEd to mainstream peace education.

10. The purpose of this environmental assessment and review framework (EARF) is to: (i) describe the project and its subprojects and/or components; (ii) explain the general anticipated environmental and/or social impacts of the components or subprojects to be financed under the proposed project; (iii) specify the requirements that will be followed in relation to subproject screening and categorization, assessment, and planning, including arrangements for meaningful

consultation with affected people and other stakeholders and information disclosure requirements and, where applicable, safeguard criteria that are to be used in selecting subprojects and/or components; (iv) assess the adequacy of the borrower's/client's capacity to implement national laws and ADB's requirements and identify needs for capacity building; (v) specify implementation procedures, including the budget, institutional arrangements, and capacity development requirements; (vi) specify monitoring and reporting requirements; and (vii) describe the responsibilities of the borrower/client and of ADB in relation to the preparation, implementation, and progress review of safeguard documents of subprojects.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

A. Environmental Legislation

11. The PEISS was established under Presidential Decree 1586 and is currently being implemented through its implementing rules and regulations contained in DENR Administrative Order No. 30, series of 2003 (DAO 03-30), which established the Revised Procedural Manual, together with Memorandum Circulars No. 2011-005, and 2010-14. The system categorizes environmentally critical projects (ECPs) as projects with significant potential to cause negative environmental impacts which have been declared as ECPs through Proclamation Nos. 2146 and 803. ECPs are grouped into four main categories, namely: (i) heavy industries, (ii) resource extractive industries, (iii) infrastructure projects, and (iv) golf courses. **Appendix 1** presents the list of ECP types.

12. An area is considered an environmentally critical area (ECA) if it exhibits any of the following characteristics (**Appendix 1**):

- i. areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries;
- ii. areas set aside as aesthetic, potential tourist spots;
- iii. areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife;
- iv. areas of unique historic, archeological, geological, or scientific interests;
- v. areas which are traditionally occupied by cultural communities or tribes;
- vi. areas frequently visited and or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.);
- vii. areas with critical slopes;
- viii. areas classified as prime agricultural lands;
- ix. recharged areas of aquifers;
- x. water bodies;
- xi. mangroves; and
- xii. coral reefs.

1. Grouping of Subprojects

13. *Group I:* An ECP located in a ECA or a non-ECA - required to secure an Environmental Compliance Certificate (ECC) by submitting an Environmental Impact Statement (EIS) to the Central Office of the Environmental Management Bureau (EMB) of DENR.

14. *Group II:* A non-ECP located in an ECA - required to secure an ECC by submitting an IEE or an IEE Checklist to the Regional Office of the EMB where the subproject will be located.

15. *Group III:* A non-ECP located in a non-ECA - this includes subprojects intended to directly enhance environmental quality or address existing environmental problems. Group III subprojects are unlikely to cause adverse environmental impacts and are not covered by the PEISS. Group III subprojects are issued a Certificate of Non-coverage (CNC) upon submission of an application online to the EMB.

16. *Group IV:* Subprojects that are co-located (a mix of subprojects in a contiguous area optionally applied as one subproject) and require programmatic EIS regardless of capacity, area, and number of locators/components.

17. *Group V:* Covers unclassified subprojects that are required to submit a Project Description Report as an interim documentary requirement. Unclassified subprojects may be covered or not covered by the PEISS subject to EMB review of the subproject description.

2. Environmental Impact Assessment Reports

18. EIA-covered subprojects in Groups I, II and IV require either an (i) EIS, (ii) IEER, or (iii) IEEC, depending on subproject type, location, magnitude of potential impacts and project threshold. For non-covered subprojects in Groups II and III, a (v) Project Description Report (PDR) is the appropriate document to secure a decision from DENR-EMB. The PDR is a “must” requirement for environmental enhancement and mitigation projects in both ECAs (Group II) and non-ECAs (Group III) to allow the EMB to confirm the benign nature of proposed operations for eventual issuance of a Certificate of Non-Coverage (CNC). All other Group III (non-covered) subprojects do not need to submit PDRs – application is at the option of the proponent should it need a CNC for its own purposes, e.g. financing prerequisite. For Group V projects, a PDR is required to ensure new processes/technologies or any new unlisted subproject does not pose harm to the environment. The Group V PDR is a basis for either issuance of a CNC or classification of the subproject into its proper group.

a. Environmental Impact Statement

19. The EIS is a comprehensive study of the significant impacts of a subproject on the environment. It includes an EMP/Program that the proponent will fund and implement to protect the environment. The EIS is a document, prepared and submitted by the subproject proponent and/or EIA consultant that serves as an application for an ECC.

b. Initial Environmental Examination Report

20. An IEER is a document similar to an EIS, but with reduced details and depth of assessment and discussion.

c. Initial Environmental Examination Checklist Report

21. An IEEC Report is a simplified checklist version of the IEER, prescribed by the DENR to be filled up by the proponent to identify and assess a subproject’s environmental impacts and the mitigation/enhancement measures to address such impacts.

22. The IEEC Report forms have been designed to simplify and standardize EIA reports so that minimal technical expertise is required to fill up of the form, which shall serve as the EIS submission for ECC applications. The checklist contains a series of questions that deals with

issues and concerns about the proposed subproject and its environment. The checklist also provides information on the proposed subproject's environmental impact, both positive and negative. The information contained in the checklist will serve as a basis for the review and assessment of EMB's Regional Office for the issuance or denial of an ECC application.

23. The IEEC Report is applicable for the following types of subprojects that are covered under the provisions of existing guidelines on the PEISS:

- i. Batching and Crushing Plants
- ii. Fisheries/aquaculture Projects
- iii. Food & Food By-product and Beverages Manufacturing Plants
- iv. Non-Food Manufacturing (textile, rubber, chemical) Plants
- v. Subdivisions/Housing Projects
- vi. Building Projects (commercial, institutional, land transportation terminal,
- vii. Motels, hotels, condominiums/apartelles and storage facilities)
- viii. Cemetery and other Funeral Facility Projects
- ix. Livestock /Poultry Projects
- x. Resorts and other Tourism/Leisure Projects
- xi. Roads and Bridges
- xii. Water Supply Projects
- xiii. Irrigation & Flood Control Projects
- xiv. Waste Management Projects

3. Environmental Compliance Documents

a. Environmental Compliance Certificate

24. The Environmental Compliance Certificate (ECC) is a document issued by the EMB certifying that the proponent has complied with all the requirements of the PEISS and has committed to implement its approved EMP. The ECC also provides guidance to other agencies and to LGUs on EIA findings and recommendations, which need to be considered in their respective decision-making process.

b. Certificate of Non-Coverage

25. The Certificate of Non-Coverage (CNC) is a document issued by the EMB certifying that a project or undertaking is not covered by the PEISS and is not required to secure an ECC. A PDR may be submitted at the option of the proponent should the proponent need a CNC for its own purposes¹.

4. Philippine EIA Process

26. **Table 1** below summarizes the Philippine EIA process:

¹ Under DENR Memorandum Circular No. 2010-14 issued on June 29, 2010, projects below the threshold of coverage based on the existing procedural manual for DAO 2003-30, CNC applications shall no longer require submission of Project Description Reports (PDR). The prescribed 1-page Application Form to be processed in the Automated Processing System is sufficient.

Table 1. Philippine EIA process

1. Screening determines if a project is covered or not covered by the PEISS. If a project is covered, screening further determines what document type the project should prepare to secure the needed approval, and what the rest of the requirements are in terms of EMB office of application, endorsing and decision authorities, duration of processing.
2. Public consultation involves the gathering of information, concerns, opinions and suggestions from the public through meetings, interviews, focus group discussions and other similar means. Stakeholder involvement will be initiated early through information and education campaign (IEC) prior to scoping.
3. Scoping is a proponent-driven multi-sectoral formal process of determining the focused Terms of Reference of the EIA Study. Scoping identifies the most significant issues/impacts of a proposed project, and then, delimits the extent of baseline information to those necessary to evaluate and mitigate the impacts. The need for and scope of an Environmental Risk Assessment (ERA) is also done during the scoping session. Scoping is done with the local community through Public Scoping and with a third party EIA Review Committee (EIARC) through Technical Scoping, both with the participation of the DENR-EMB. The process results in a signed Formal Scoping Checklist by the review team, with final approval by the EMB Chief.
4. The EIA study involves a description of the proposed project and its alternatives, characterization of the project environment, impact identification and prediction, evaluation of impact significance, impact mitigation, formulation of Environmental Management and Monitoring Plan, with corresponding cost estimates and institutional support commitment. The study results are presented in an EIA Report for which an outline is prescribed by EMB for every major document type.
5. Review of EIA reports normally entails an EMB procedural screening for compliance to minimum requirements specified during Scoping, followed by a substantive review of either composed third party experts commissioned by EMB as the EIA Review Committee for PEIS/EIS-based applications, or DENR/EMB internal specialists, the Technical Committee, for IEE-based applications. EMB evaluates the EIARC recommendations and the public's inputs during public consultations/hearings in the process of recommending a decision on the application. The EIARC Chair signs EIARC recommendations including issues outside the mandate of the EMB. The entire EIA review and evaluation process is summarized in the Review Process Report (RPR) of the EMB, which includes a draft decision document.
6. Decision making involves evaluation of EIA recommendations and the draft decision document, resulting to the issuance of an ECC, CNC or Denial Letter. When approved, a covered project is issued its certificate of Environmental Compliance Commitment (ECC) while an application of a non-covered project is issued a Certificate of Non-Coverage (CNC). Endorsing and deciding authorities are designated by AO 42, and further detailed in this Manual for every report type. Moreover, the Proponent signs a sworn statement of full responsibility on implementation of its commitments prior to the release of the ECC. The ECC is then transmitted to concerned LGUs and other GAs for integration into their decision-making process. The regulated part of EIA Review is limited to the processes within EMB control. The timelines for the issuance of decision documents provided for in AO 42 and DAO 2003-30 are applicable only from the time the EIA Report is accepted for substantive review to the time a decision is issued on the application.
7. Monitoring, validation and evaluation/audit stage assesses performance of the Proponent against the ECC and its commitments in the Environmental Management and Monitoring Plans to ensure actual impacts of the project are adequately prevented or mitigated.

B. Institutional Arrangement and Responsibilities

27. **DOF and DPWH.** The Department of Finance (DOF) is the EA/IA for the fiscal support output and will allocate funds to other agencies. The Department of Public Works and Highways (DPWH) will be the Executing Agency (EA) as well as the Implementing Agency (IA) for the infrastructure loan output of the Project, responsible for Output 2 of the project. Unified Project Management Office (UPMO) under the Office of the Undersecretary for (UPMO) Operations of DPWH will be responsible for the planning and implementation of the proposed infrastructure projects and will oversee the consultants.

28. **Other government offices** such as the member agencies of the Task Force Bangon Marawi (TFBM), Local Government Units (LGUs), and Non-Government Organizations (NGOs) shall be extensively involved in the implementation of the information campaign and publicity. With the assistance of the consultants, the DPWH will make all the coordination and arrangement with the above-mentioned agencies concerned.

29. **Unified Project Management Office-ROW Task Force.** The UPMO shall be responsible for implementing and monitoring the Project, including implementation of the EARF and environmental management plan (EMP).

30. **Environmental and Social Safeguards Division (ESSD), Planning Service, DPWH.** The ESSD shall provide technical guidance and support in the implementation and monitoring of the EMP and will have overall responsibility in ensuring project compliance to Government environment requirements and ADB SPS 2009. Such task will be carried out by ESSD in close coordination with the environmental safeguard staff at the DPWH Regional Offices and Office of the District Engineer throughout project implementation.

31. During subproject preparation, the ESSD will be supported by the detailed engineering and design consultant (DED) in the preparation of environmental assessment reports in compliance with GOV and ADB requirements. During construction phase, the ESSD will be supported by the construction supervision consultant (CSC) in conducting environmental monitoring and preparation of corresponding reports.

C. Institutional Capacity

32. DPWH has a full-scale Environmental and Social Safeguards Division (ESSD) since 1999 when they started it as part of a World Bank (WB) project requirement. ESSD has been and is currently involved in various projects financed by international financing institutions such as WB, ADB and JICA. ESSD is now an established Division that is involved with the safeguards related issues of all projects, and the specialist staff have gathered much experience for the safeguards implementation. Staff salary comes from the regular planned budget. During construction phase, the DPWH staff will be supported by the environment safeguard specialist of the construction supervision consultant (CSC) in the conduct of EMP implementation monitoring and preparation of environmental monitoring reports.

III. ANTICIPATED ENVIRONMENTAL IMPACTS

33. Detailed assessment of impacts will be carried out during the preparation of subproject environmental assessment reports based on actual sites conditions, location, scope and other related aspects which are not known at the moment. Below are general descriptions of anticipated

impacts from implementation of the proposed civil works under the proposed emergency assistance project.

- i. **Air quality and Noise:** Earthworks and operation of heavy equipment on construction sites such as excavators, bulldozers, dump trucks, etc. will result to dust emission and noise levels that will be likely above applicable standards and existing ambient noise levels.
- ii. **Surface Water Quality.** Construction works in or near water bodies can obstruct water flow and lead to drying of river and streambeds or exacerbate flooding. Operation of machinery can lead to contamination of water quality from gasoline, oil, grease, and chemicals. Improper handling of fuel and chemicals can lead to accidental spills or leaks of toxic substances. Water pollution can also occur from discharges from concrete batching plants, sediment laden runoff and inadequate sanitation (i.e., improper toilet facilities and improper solid waste disposal). During operation, discharge of untreated wastewater will lead to contamination of surrounding surface water bodies.
- iii. **Soil and Groundwater Contamination:** Construction activities where heavy machinery is operated, soil contamination by oil and fuel may occur. Groundwater contamination by construction wastes and spills is also possible; as is contamination from inadequate sanitation and improper waste disposal during construction and operation phases. Inadequate protection of intake works or wells, leading to pollution of water supply.
- iv. **Erosion:** Soil erosion and unstable side slopes could result to increased run off and sedimentation that could affect water quality, result to flooding, damage aquatic environment in nearby rivers and streams, damage vegetation, and development of unsightly cuts and fills that have been riddled by uncontrolled erosion and gulling.
- v. **Solid Wastes.** Improper collection and disposal of construction waste may have impacts on water quality, flora and fauna, occupational and public health.
- vi. **Fish and Other Aquatic Fauna.** Contamination of surface water, siltation, and reduction of instream flows may lead to adverse impacts on fish, fish habitat and other aquatic organisms.
- vii. **Vegetation.** Direct loss of trees and other vegetation due to road widening and other civil works.
- viii. **Other Potential Impacts.** Other potential impacts include traffic and access obstruction during road works and pipe laying, occupational and community health and safety risks, road safety issues during operation, risks due to use of hazardous materials/chemicals.

34. Environmental guidelines² to be applied for the project are as follows:

- i. Ambient air quality: National Ambient Air Quality Guideline Values (Republic Act 8749-Philippine Clean Air Act of 1999)
- ii. Noise: Guidelines for Community Noise, World Health Organization (WHO), 1999

² The design, construction, and operation of the project 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. 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 this document.

- iii. Water quality: Water Quality Guidelines and General Effluent Standards of 2016 (DENR Administrative Order No. 2016-08)

IV. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS

A. ADB Environmental Assessment Procedures for the Subprojects

35. DPWH will ensure that the following activities are undertaken for each subproject prior to implementation.

1. Screening and Environmental Categorization

36. A rapid environmental assessment (REA) using the ADB REA Checklist which also include a checklist for preliminary climate risk screening (**Appendix 2**), and environmental categorization form (**Appendix 3**) will be accomplished by DPWH-ESSD for review and approval of ADB.

2. Preparation of Initial Environmental Examination (IEE) and/or Environmental Impact Assessment (EIA)

37. DPWH will ensure that environmental assessment documents prepared for all subprojects to be funded under the emergency loan will, to the extent possible, meet both ADB and Philippine government requirements, in order to streamline the environmental procedures required by both ADB and the government.

38. Attached as **Appendix 3** is the outline of an environmental assessment report based on ADB SPS 2009. In preparing the reports, relevant primary data through field sampling/surveys will be generated and secondary data will be collected for project-influenced sites. Further guidance on the environmental assessment and related aspects are found in Appendix 1 (Safeguards Requirements 1: Environment) of the ADB SPS 2009 (**Appendix 4**).

3. Review of IEEs/EIAs

39. DPWH will submit and endorse to ADB the draft IEE/EIA for review, clearance and posting on ADB website before implementation of each subproject.

40. In case an ECC is required based on Government requirements, DPWH will ensure that EIAs/IEEs will be submitted to the Environmental Management Bureau (EMB). Processing of the ECC application will follow the Philippine EIA process outlined in **Figure 1**.

41. It is the responsibility of the DPWH to ensure that subprojects comply with the environment-related legal framework, whether at the national or local level.

4. Sub-project Implementation

42. No works for a subproject with environmental impacts shall be awarded before:
- i. the IEE or EIA has received the final approval from DENR and clearance from ADB
 - ii. the IEE or EIA has been endorsed by DPWH to ADB and disclosed on ADB website per ADB SPS requirement, and
 - iii. the provisions of the EMP have been reflected in the contracts.

V. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM

A. Public Consultation

43. Meaningful stakeholder consultation and participation is part of the project preparation and implementation strategy. A meaningful consultation pertains to 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) 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. Public consultation will be undertaken during the IEE/EIA preparation to document comments from the villagers, community groups, local government, and interested NGOs.

44. During IEE/EIA preparation, public meetings will be conducted involving local government officials, residents, affected people and groups from communities traversed by the subproject roads to: (i) inform them of the proposed subproject and potential environmental impacts, and (ii) to document concerns/issues that people may have on the project. Consultations will have the following agenda:

- i. Presentation of the proposed works under the subproject;
- ii. Presentation of subproject objectives and expected positive and negative environmental impacts, covering the construction phase and operational impacts;
- iii. Invitation for feedback in respect of environment-related concerns that the public may have, and suggested means to resolve issues;
- iv. Disclosure of and feedback on the Grievance Redress Mechanism (GRM)

45. For the consultations, the dates, venues, attendance sheets, topics covered, issues raised, project's response to issues concerns raised will be documented and included in the IEE/EIA.

B. Information Disclosure

46. DPWH will endorse the following documents to ADB for disclosure on its website:

- i. final IEE
- ii. draft and final EIA
- iii. a new or updated IEE/EIA and corrective action plan prepared during project implementation;
- iv. semi-annual environmental monitoring reports; and
- v. annual external environmental monitoring reports (for Category A subprojects)

47. The draft EIA will need to be publicly disclosed at least 120-days before the subproject is implemented. However, ADB Management can waive the 120-day rule for disclosure of the EIA and the two-step public consultation requirement for Category A projects on a project-by-project basis³. The IEE/EIA need to be cleared by ADB before a subproject is implemented.

³ ADB's Disaster and Emergency Policy (2004)

C. Grievance Redress Mechanism

48. A subproject-specific grievance redress mechanism (GRM) will be established at the DPWH District Engineering Office (DEO) to receive, evaluate and facilitate the complaints/grievances of affected persons on the sub-project's environmental performance. This mechanism will be disclosed in public consultations during IEE preparation.

49. Each DEO will appoint an Environment Officer, and will organize the District Grievance Redress Committee (DGRC) to be chaired by the DPWH District Engineer. Members will include the following: (i) environment officer of DEO, (ii) contractor's highest official at the site such as the Construction Manager or the Construction Superintendent; (iii) contractor's environment officer, (iv) barangay chairperson; and (v) environment specialist of the construction supervision consultant. For the quick filing of complaints, the DGRC will use the attached grievance intake form (**Appendix 6**). The DEO's environment officer will be responsible for registration of grievances and communication with the aggrieved party.

50. The steps to be followed in filing complaints and the procedures for redress are the following:

- (i) complainant will provide the background and file the complaint verbally or in writing to the DEO, and the DEO's Environment Officer will assist the complainant in filling-up the grievance intake form;
- (ii) within 2 working days, the Environment Officer, contractor's representative, and complainant will discuss if the complaint can be resolved without calling for a DGRC meeting;
- (iii) within 3 days of lodging the complaint, the DEO's environment officer will provide the complainant a written feedback on the process, steps and timeframe for resolving the complaint.
- (iv) if the complaint cannot be resolved, a DGRC meeting with the complainant will be called within 5 working days;
- (v) the DGRC will have 15 working days to resolve the complaint;
- (vi) The complainant will receive feedback from the DEO's environment officer within 5 working days after the various steps of the GRM are completed.
- (vii) if unsatisfied with the decision, the existence of the DGRC will not impede the complainant's access to the Government's judicial, administrative remedies or through concerned government agencies (e.g., Community Environment and Natural Resources Office and Provincial Environment and Natural Resources Office of DENR, Regional offices of the Environmental Management Bureau, etc.)

51. The DGRC will receive, follow-up and prepare monthly reports regarding all complaints, disputes or questions received about the Project and corresponding actions taken to resolve the issues. These reports will be included in the semi-annual environmental monitoring reports to be submitted by DPWH to ADB.

VI. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

A. Environmental Assessment, Review and Clearance

52. **Executing Agency and Implementing Agency: DPWH.** DPWH will have overall responsibility for project coordination, implementation, and liaison with ADB and other government agencies. DPWH will submit the IEEs to ADB for review, clearance and disclosure. DPWH will also ensure that the Project complies with the Government's environmental requirements. DPWH will coordinate with its ESSD to ensure that the Project complies with the ADB SPS and this EARF and the Government's environmental requirements.

53. **Project Management Unit:** The existing Unified Project Management Office (UPMO) clusters of DPWH under the Office of the Undersecretary for UPMO Operations will be responsible for the planning and implementation of the proposed infrastructure projects.

54. **ESSD.** The ESSD will assist the UPMO and the detailed engineering design (DED) consultant to undertake the following tasks for each subproject: (a) accomplish the ADB environmental categorization form and rapid environmental assessment checklist, and prepare the IEE/EIA based on ADB SPS, (b) prepare required reports/documents (e.g., EIS, IEE report, IEE checklist, environmental impact statement (EIS), etc.) in compliance with the Government environmental requirements and obtain corresponding clearance such as ECC or CNC.

55. **ADB.** The ADB will have the following responsibilities to ensure compliance with the ADB SPS: (a) approve the environmental categorization of each subproject, (b) review and clear IEEs/EIAs prepared based on ADB SPS, and (c) publicly disclose final IEEs, draft and final EIAs on ADB's website.

B. Capacity Development

56. The environmental assessment and management capacity of the existing environmental staff of ESSD and the District Engineering Office of DPWH will be enhanced through on-the-job training. During IEE/EIA preparation, the concerned DPWH staff will work closely with the environment specialist of the DED. During construction phase, the DPWH staff will be supported by the environment specialist of the construction supervision consultant (CSC) in the conduct of environmental monitoring and preparation of environmental monitoring reports.

C. Staffing Requirement and Budget

57. The costs for environmental safeguard activities (e.g., IEE and EIA preparation) for subprojects to be prepared during implementation will be included in the DED's contract. During construction phase, the cost of mitigation measures will be incorporated into the contractor's costs since the environmental management plan will be part of the tender documents. DPWH will update the IEE/EIA should there be changes to the project (e.g., design, location, construction methodology, etc.) that will result to adverse environmental impacts. The updated IEE will be reviewed, cleared and publicly disclosed by ADB prior to implementation of said changes.

VII. MONITORING AND REPORTING

58. Environmental monitoring and report preparation during civil works will be carried out by the CSC in coordination with DPWH's ESSD and District Engineering Office's environment staff.

DPWH will submit semi-annual environmental monitoring reports to ADB for review and disclosure on ADB's website.

59. For Category A subprojects, DPWH will also engage an external environmental monitor (independent) to verify, on an annual basis, the information contained in the SEMRs.

60. ADB will review subproject environmental performance against the commitments as agreed in the legal documents and IEE/EIA. The extent of ADB's monitoring and supervision activities will be commensurate with the subproject's risks and impacts. Monitoring and supervising of environmental safeguards will be integrated into the project performance management system. ADB will monitor subprojects 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 subprojects with adverse environmental impacts;
- (ii) Review semi-annual environmental monitoring reports submitted by DPWH to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
- (iii) Work with DPWH to rectify, to the extent possible, any non-compliance with their safeguard commitments, as covenanted in the legal agreements and as specified in the IEE/EIA, and exercise remedies to re-establish compliance as appropriate; and
- (iv) Prepare a project completion report that assesses whether the objective and desired outcomes of the safeguard plans have been achieved.

Appendix 1: Environmentally Critical Projects (ECPs) and Environmentally Critical Areas (ECAs)

In accordance with Presidential Proclamation No. 2146, series of 1981 and Proclamation No. 803 (Series of 1996), the four (4) main categories of ECPs are (1) heavy industries; (2) resource extractive industries; (3) infrastructure projects and (4) golf course projects.

1. Heavy Industries
 - a) Non-Ferrous Metal Industries
 - b) Iron and Steel Mills
 - c) Petroleum and Petrochemical Industries
 - d) Smelting Plants
2. Resource Extractive Industries
 - a) Non-Ferrous Metal Industries
 - b) Major Mining and Quarrying Projects
 - c) Forestry Projects
 - d) Dikes for/and Fishpond Development Projects
3. Infrastructure Projects
 - a) Major Dams
 - b) Major Power Plants
 - c) Major Reclamation Projects
 - d) Major Roads and Bridges
4. Golf Course Projects

In accordance with Presidential Proclamation No. 2146, series of 1981, following is the list of environmentally critical areas (ECAs):

1. All areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries;
2. Areas set aside as aesthetic potential tourist spots;
3. Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine Wildlife (flora and fauna);
4. Areas of unique historic, archaeological, or scientific interests;
5. Areas which are traditionally occupied by cultural communities or tribes;
6. Areas frequently visited and/or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.);
7. Areas with critical slopes;
8. Areas classified as prime agricultural lands;

9. Recharged areas of aquifers;
10. Water bodies characterized by one or any combination of the following conditions;
 - a) tapped for domestic purposes
 - b) within the controlled and/or protected areas declared by appropriate authorities
 - c) which support wildlife and fishery activities
11. Mangrove areas characterized by one or any combination of the following conditions:
 - a) with primary pristine and dense young growth;
 - b) adjoining mouth of major river systems;
 - c) near or adjacent to traditional productive fry or fishing grounds;
 - d) which act as natural buffers against shore erosion, strong winds and storm floods;
 - e) on which people are dependent for their livelihood.
12. Coral reefs characterized by one or any combinations of the following conditions:
 - a) With 50% and above live coralline cover;
 - b) Spawning and nursery grounds for fish;
 - c) which act as natural breakwater of coastlines.

Appendix 2:

Rapid Environmental Assessment (REA) Checklist

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 ADB.
- (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:

Subproject Name:

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

▪ alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?			
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			
▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?			
▪ noise and vibration due to blasting and other civil works?			
▪ dislocation or involuntary resettlement of people?			
▪ dislocation and compulsory resettlement of people living in right-of-way?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			
▪ hazardous driving conditions where construction interferes with pre-existing roads?			
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?			
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?			
▪ accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?			
▪ increased noise and air pollution resulting from traffic volume?			
▪ increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?			

▪ social conflicts if workers from other regions or countries are hired?			
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.			

Country/Project Name:

Subproject Name:

Location:

Screening Questions		Score	Remarks ¹
Location and Design of project	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)?		
Materials and Maintenance	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) ?		
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

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

Result of Initial Screening (Low, Medium, High): _____

Other Comments: _____

Prepared by: _____

Designation/Agency: _____

Date: _____

¹ 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.

Appendix 3:

OUTLINE OF AN ENVIRONMENTAL ASSESSMENT REPORT (EIA/IEE)

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

A. Executive Summary

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

B. Policy, Legal, and Administrative Framework

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

C. Description of the Project

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

D. Description of the Environment (Baseline Data)

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

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives (*For Category A Projects only*)

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

G. Information Disclosure, Consultation, and Participation

This section:

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

H. Grievance Redress Mechanism

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

I. Environmental Management Plan

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

- (i) Mitigation:
 - (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
 - (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and
 - (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

Sample environmental mitigation summary table:

Environmental Mitigation Measures				
Potential Environmental Impact	Mitigation Measures	Institutional Responsibilities		Cost estimates
		Implementation	Monitoring	
Pre-construction				
Construction				
Operation				

(ii) Monitoring:

- (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and
- (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

Sample environmental monitoring summary table:

Environmental Monitoring Plan					
Aspects/ Parameters to be monitored	Location	Means of Monitoring	Monitoring Frequency	Monitoring Responsibility	Monitoring Cost
Pre-construction					
Construction					
Operation					

(iii) Implementation arrangements:

- (a) specifies the implementation schedule showing phasing and coordination with overall project implementation;
- (b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and
- (c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance

criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

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

Appendix 4:
ADB Safeguard Policy Statement (2009)
Safeguard Requirements 1: Environment

A. Introduction

1. Safeguard Requirements 1 outlines the requirements that borrowers/clients are required to meet when delivering environmental safeguards for projects supported by the Asian Development Bank (ADB). It discusses the objectives and scope of application, and underscores the requirements for undertaking the environmental assessment process. These requirements include assessing impacts, planning and managing impact mitigations, preparing environmental assessment reports, disclosing information and undertaking consultation, establishing a grievance mechanism, and monitoring and reporting. The document also includes particular environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical cultural resources. The applicability of particular requirements is established through the environmental assessment process and compliance with the requirements is achieved through implementation of environmental management plans agreed to by ADB and the borrower/client.

B. Objectives

2. 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.

C. Scope of Application

3. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects).

D. Requirements

1. Environmental Assessment

4. Environmental assessment is a generic term used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. At an early stage of project preparation, the borrower/client will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned NGOs. If potentially adverse environmental impacts and risks are identified, the borrower/client will undertake an environmental assessment as early as possible in the project cycle. For projects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, the borrower/client will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the particular project location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental costs and benefits of

the various alternatives considered into account. The "no project" alternative will be also considered.

5. The assessment process will be based on current information, including an accurate project description, and appropriate environmental and social baseline data. The environmental assessment will consider all potential impacts and risks of the project on physical, biological, socioeconomic (occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]) and physical cultural resources in an integrated way. The project's potential environmental impacts and risks will be reviewed against the requirements presented in this document and applicable laws and regulations of the jurisdictions in which the project operates that pertain to environmental matters, including host country obligations under international law.

6. Impacts and risks will be analyzed in the context of the project's area of influence. This area of influence encompasses (i) the primary project site(s) and related facilities that the borrower/client (including its contractors) develops or controls, such as power transmission corridors, pipelines, canals, tunnels, access roads, borrow pits and disposal areas, and construction camps; (ii) associated facilities that are 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; (iii) areas and communities potentially affected by cumulative impacts from further planned development of the project, other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that are realistically defined at the time the assessment is undertaken; and (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that might occur without the project or independently of the project. Environmental impacts and risks will also be analyzed for all relevant stages of the project cycle, including preconstruction, construction, operations, decommissioning, and post closure activities such as rehabilitation or restoration.

7. The assessment will identify potential transboundary effects, such as air pollution, increased use or contamination of international waterways, as well as global impacts, such as emission of greenhouse gases and impacts on endangered species and habitats.

8. The environmental assessment will examine whether particular individuals and groups may be differentially or disproportionately affected by the project's potential adverse environmental impacts because of their disadvantaged or vulnerable status, in particular, the poor, women and children, and Indigenous Peoples. Where such individuals or groups are identified, the environmental assessment will recommend targeted and differentiated measures so that adverse environmental impacts do not fall disproportionately on them.

9. Depending on the significance of project impacts and risks, the assessment may comprise a full-scale environmental impact assessment (EIA) for category A projects, an initial environmental examination (IEE) or equivalent process for category B projects, or a desk review. An EIA report includes the following major elements: (i) executive summary, (ii) description of the project, (iii) description of the environment (with comprehensive baseline data), (iv) anticipated environmental impacts and mitigation measures, (v) analysis of alternatives, (vi) environmental management plan(s), (vii) consultation and information disclosure, and (viii) conclusion and recommendations. The annex to this appendix provides further details. An IEE, with its narrower

scope, may be conducted for projects with limited impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.

10. When the project involves existing activities or facilities, relevant external experts will perform environmental audits to determine the existence of any areas where the project may cause or is causing environmental risks or impacts. If the project does not foresee any new major expansion, the audit constitutes the environmental assessment for the project. A typical environmental audit report includes the following major elements: (i) executive summary; (ii) facilities description, including both past and current activities; (iii) summary of national, local, and any other applicable environmental laws, regulations, and standards; (iv) audit and site investigation procedure; (v) findings and areas of concern; and (vi) corrective action plan that provides the appropriate corrective actions for each area of concern, including costs and schedule.

11. When the project involves the development of or changes to policies, plans, or programs that are likely to have significant environmental impacts that are regional or sectoral, strategic environmental assessment will be required. A strategic environmental assessment report will include (i) an analysis of the scenario, (ii) an assessment of long-term and indirect impacts, (iii) a description of the consultation process, and (iv) an explanation of option selection.

2. Environmental Planning and Management

12. The borrower/client will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Where impacts and risks cannot be avoided or prevented, mitigation measures and actions will be identified so that the project is designed, constructed, and operated in compliance with applicable laws and regulations and meets the requirements specified in this document. The level of detail and complexity of the environmental planning documents and the priority of the identified measures and actions will be commensurate with the project'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.

13. 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.

14. The EMP will define expected outcomes as measurable events to the extent possible and will include performance indicators or targets that can be tracked over defined periods. It will be responsive to changes in project design, such as a major change in project location or route, or in technology, unforeseen events, and monitoring results.

15. At times, a third party's involvement will influence implementation of the EMP. A third party may be, inter alia, a government agency, a contractor, or an operator of an associated facility.

When the third-party risk is high and the borrower/client has control or influence over the actions and behavior of the third party, the borrower/client will collaborate with the third party to achieve the outcome consistent with the requirements for the borrower/client. Specific actions will be determined on a case-by-case basis.

16. The borrower/client will use qualified and experienced experts to prepare the environmental assessment and the EMP. For highly complex and sensitive projects, independent advisory panels of experts not affiliated with the project will be used during project preparation and implementation.

3. Information Disclosure

17. The borrower/client will submit to ADB the following documents for disclosure on ADB's website:

- (i) a draft full EIA (including the draft EMP) at least 120 days prior to ADB Board consideration, and/or environmental assessment and review frameworks before project appraisal, where applicable;
- (ii) the final EIA/IEE;
- (iii) a new or updated EIA/IEE and corrective action plan prepared during project implementation, if any; and
- (iv) the environmental monitoring reports.

18. The borrower/client will provide relevant environmental information, including information from the documents in para. 17 in a timely manner, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods will be used.

4. Consultation and Participation

19. The borrower/client will carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. Meaningful consultation is a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle¹ (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. Consultation will be carried out in a manner commensurate with the impacts on affected communities. The consultation process and its results are to be documented and reflected in the environmental assessment report.

5. Grievance Redress Mechanism

20. The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance. The grievance mechanism should be scaled to the risks and adverse impacts of the

¹ For environment category A projects, such consultations will necessarily include consultations at the early stage of EIA field work and when the draft EIA report is available during project preparation, and before project appraisal by ADB.

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

6. Monitoring and Reporting

21. The borrower/client will monitor and measure the progress of implementation of the EMP. The extent of monitoring activities will be commensurate with the project's risks and impacts. In addition to recording information to track performance, the borrower/client will undertake inspections to verify compliance with the EMP and progress toward the expected outcomes. For projects likely to have significant adverse environmental impacts, the borrower/client will retain qualified and experienced external experts or qualified NGOs to verify its monitoring information. The borrower/client will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The borrower/client will implement these corrective actions and follow up on these actions to ensure their effectiveness.

22. The borrower/client will prepare periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. The borrower/client will submit at least semiannual monitoring reports during construction for projects likely to have significant adverse environmental impacts, and quarterly monitoring reports for highly complex and sensitive projects. For projects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis. Such periodic reports will be posted in a location accessible to the public. Project budgets will reflect the costs of monitoring and reporting requirements.

7. Unanticipated Environmental Impacts

23. Where unanticipated environmental impacts become apparent during project implementation, the borrower/client will 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.

8. Biodiversity Conservation and Sustainable Natural Resource Management

24. The borrower/client will assess the significance of project impacts and risks on biodiversity² and natural resources as an integral part of the environmental assessment process specified in paras. 4–10. The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity.³

² The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

³ Significant conversion or degradation is (i) the elimination or severe diminution of the integrity of a habitat caused by a major, long-term change in land or water use; or (ii) the modification of a habitat that substantially

a. Modified Habitats

25. In areas of modified habitat, where the natural habitat has apparently been altered, often through the introduction of alien species of plants and animals, such as in agricultural areas, the borrower/client will exercise care to minimize any further conversion or degradation of such habitat, and will, depending on the nature and scale of the project, identify opportunities to enhance habitat and protect and conserve biodiversity as part of project operations.

b. Natural Habitats

26. In areas of natural habitat,⁴ the project will not significantly convert or degrade⁵ such habitat, unless the following conditions are met:

- (i) No alternatives are available.
- (ii) A comprehensive analysis demonstrates that the overall benefits from the project will substantially outweigh the project costs, including environmental costs.
- (iii) Any conversion or degradation is appropriately mitigated.

27. Mitigation measures will be designed to achieve at least no net loss of biodiversity. They may include a combination of actions, such as post project restoration of habitats, offset of losses through the creation or effective conservation of ecologically comparable areas that are managed for biodiversity while respecting the ongoing use of such biodiversity by Indigenous Peoples or traditional communities, and compensation to direct users of biodiversity.

c. Critical Habitats

28. No project activity will be implemented in areas of critical habitat⁶ unless the following requirements are met:

- (i) There are no measurable adverse impacts, or likelihood of such, on the critical habitat which could impair its high biodiversity value or the ability to function.
- (ii) The project is not anticipated to lead to a reduction in the population of any recognized endangered or critically endangered species⁷ or a loss in area of the habitat concerned such that the persistence of a viable and representative host ecosystem be compromised.
- (iii) Any lesser impacts are mitigated in accordance with para. 27.

⁴ Land and water areas where the biological communities are formed largely by native plant and animal species, and where human activity has not essentially modified the area's primary ecological functions.

⁵ Significant conversion may include, for example, land clearing; replacement of natural vegetation (for example, by crops or tree plantations); permanent flooding (by a reservoir for instance); drainage, dredging, filling, or canalization of wetlands; or surface mining.

⁶ Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic, or cultural importance to local communities. Critical habitats include those areas either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization's world natural heritage sites.

⁷ As defined by the Word Conservation Union's Red List of Threatened Species or as defined in any national legislation.

29. When the project involves activities in a critical habitat, the borrower/client will retain qualified and experienced external experts to assist in conducting the assessment.

d. Legally Protected Areas

30. In circumstances where some project activities are located within a legally protected area, in addition to the requirement specified in para. 28, the borrower/client will meet the following requirements:

- (i) Act in a manner consistent with defined protected area management plans.
- (ii) Consult protected area sponsors and managers, local communities, and other key stakeholders on the proposed project.
- (iii) Implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area.

e. Invasive Alien Species

31. The borrower/client will not intentionally introduce any new alien species (that is, species not currently established in the country or region of the project) unless carried out in accordance with the existing regulatory framework for such introduction, if such a framework is present, or unless the introduction is subject to a risk assessment (as part of the environmental assessment) to determine the potential for invasive behavior. Under no circumstances must species known to be invasive be introduced into new environments. The borrower/client will undertake assessment of the possibility of accidental or unintended introduction of such invasive alien species and identify measures to minimize the potential for release.

f. Management and Use of Renewable Natural Resources

32. Renewable natural resources will be managed in a sustainable manner. Sustainable resource management is management of the use, development, and protection of resources in a way, or at a rate, that enables people and communities, including Indigenous Peoples, to provide for their current social, economic, and cultural well-being while also sustaining the potential of those resources to meet the reasonably foreseeable needs of future generations. This includes safeguarding the life-supporting capacity of air, water, and soil ecosystems. Where possible, the borrower/client will demonstrate the sustainable management of resources through an appropriate system of independent certification.

9. Pollution Prevention and Abatement

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*.⁸ 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 this document.

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

a. Pollution Prevention, Resource Conservation, and Energy Efficiency

34. The borrower/client will avoid, or where avoidance is impossible, will minimize or control the intensity or load of pollutant emission and discharge. In addition the borrower/client will examine and incorporate in its operations resource conservation and energy efficiency measures consistent with the principles of cleaner production. When the project has the potential to constitute a significant source of emissions in an already degraded area, strategies that help improve ambient conditions, such as evaluating alternative project locations and considering emissions offsets, will be introduced.

b. Wastes

35. The borrower/client will avoid, or where avoidance is not possible, will minimize or control the generation of hazardous and nonhazardous wastes and the release of hazardous materials resulting from project activities. Where waste cannot be recovered or reused, it will be treated, destroyed, and disposed of in an environmentally sound manner. If the generated waste is considered hazardous, the client will explore reasonable alternatives for its environmentally sound disposal considering the limitations applicable to its transboundary movement.⁹ When waste disposal is conducted by third parties, the borrower/client will use contractors that are reputable and legitimate enterprises licensed by the relevant regulatory agencies.

c. Hazardous Materials

36. The borrower/client will avoid the manufacture, trade, and use of hazardous substances and materials subject to international bans or phase outs because of their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer¹⁰ and will consider the use of less hazardous substitutes for such chemicals and materials.

d. Pesticide Use and Management

37. The environmental assessment will ascertain that any pest and/or vector management activities related to the project are based on integrated pest management approaches and aim to reduce reliance on synthetic chemical pesticides in agricultural and public health projects. The borrower/client's integrated pest/vector management program will entail coordinated use of pest and environmental information along with available pest/vector control methods, including cultural practices, biological, genetic and, as a last resort, chemical means to prevent unacceptable levels of pest damage. The health and environmental risks associated with pest management should be minimized with support, as needed, to institutional capacity development, to help regulate and monitor the distribution and use of pesticides and enhance the application of integrated pest management.

38. The borrower/client will not use products that fall in World Health Organization Recommended Classification of Pesticides by Hazard Classes Ia (extremely hazardous) and Ib (highly hazardous) or Class II (moderately hazardous), if the project host country lacks restrictions

⁹ Consistent with the objectives of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes.

¹⁰ Consistent with the objectives of the Stockholm Convention on Persistent Organic Pollutants and the Montreal Protocol on Substances that Deplete the Ozone Layer.

on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply and dispose of these products properly. The borrower/client will handle, store, apply and dispose of pesticides in accordance with international good practice such as the Food and Agricultural Organization's International Code of Conduct on the Distribution and Use of Pesticides.

e. Greenhouse Gas Emissions

39. The borrower/client will promote the reduction of project-related anthropogenic greenhouse gas emissions in a manner appropriate to the nature and scale of project operations and impacts. During the development or operation of projects that are expected to or currently produce significant quantities of greenhouse gases,¹¹ the borrower/client will quantify direct emissions from the facilities within the physical project boundary and indirect emissions associated with the off-site production of power used by the project. The borrower/client will conduct quantification and monitoring of greenhouse gas emissions annually in accordance with internationally recognized methodologies.¹² In addition, the borrower/client will evaluate technically and financially feasible and cost-effective options to reduce or offset project-related greenhouse gas emissions during project design and operation, and pursue appropriate options.

10. Health and Safety

a. Occupational Health and Safety

40. The borrower/client will provide workers¹³ with a safe and healthy working environment, taking into account risks inherent to the particular sector and specific classes of hazards in the borrower's/client's work areas, including physical, chemical, biological, and radiological hazards. The borrower/client will 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) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.

41. The borrower/client will apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's *Environment, Health and Safety Guidelines* (footnote 7).

b. Community Health and Safety

¹¹ Even though the significance of a project's contribution to greenhouse gas emissions varies between industry sectors, the significance threshold to be considered for these requirements is generally 100,000 tons of carbon dioxide equivalent per year for the aggregate emissions of direct sources and indirect sources associated with electricity purchased for own consumption.

¹² Estimation methodologies are provided by the Intergovernmental Panel on Climate Change (IPCC), various international organizations, and relevant host country agencies.

¹³ 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.

42. The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts. These measures will favor the prevention or avoidance of risks and impacts over their minimization and reduction. Consideration will be given to potential exposure to both accidental and natural hazards, especially where the structural elements of the project are accessible to members of the affected community or where their failure could result in injury to the community. The borrower/client will avoid or minimize the exacerbation of impacts caused by natural hazards, such as landslides or floods that could result from land use changes due to project activities.

43. The borrower/client will inform affected communities of significant potential hazards in a culturally appropriate manner. The borrower/client will be prepared to respond to accidental and emergency situations. This preparation will include response planning document(s) that addresses the training, resources, responsibilities, communications, procedures, and other aspects required to respond effectively to emergencies associated with project hazards. Appropriate information about emergency preparedness and response activities, resources, and responsibilities will be disclosed to affected communities.

44. When structural elements or components, such as dams, tailings dams, or ash ponds, are situated in high-risk locations and their failure or malfunction may threaten the safety of communities, the borrower/client will engage qualified and experienced experts, separate from those responsible for project design and construction, to conduct a review as early as possible in project development and throughout project design, construction, and commissioning.

11. Physical Cultural Resources

45. The borrower/client is responsible for siting and designing the project to avoid significant damage to physical cultural resources.¹⁴ Such resources likely to be affected by the project will be identified, and qualified and experienced experts will assess the project's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process specified in paras. 4–10.

46. When a project may affect physical cultural resources, the borrower/client will consult with affected communities who use, or have used them within living memory, for long-standing cultural purposes to identify physical cultural resources of importance and to incorporate the views of the affected communities on such resources into the borrower's/client's decision-making process. Consultation will also involve relevant national or local regulatory agencies that are entrusted with protecting physical cultural resources. The findings are disclosed as part of, and in the same manner as, the environmental assessment report, except when such disclosure would compromise or jeopardize the safety or integrity of the physical cultural resources.

47. When the project is likely to have adverse impacts on physical cultural resources, the borrower/client will identify appropriate measures for avoiding or mitigating these impacts as part of the environmental planning process specified in paras. 12–16. These measures may range

¹⁴ Defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

from avoidance to full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.

48. When the proposed location of a project is in areas where physical cultural resources are expected to be found as determined during the environmental assessment process, chance finds procedures will be included in the EMP. Chance finds shall not be disturbed until an assessment by a competent specialist is made and actions consistent with these requirements are identified.

49. The project will not remove any physical cultural resources unless the following conditions are met:

- (i) No alternatives to removal are available.
- (ii) The overall benefits of the project substantially outweigh the anticipated cultural heritage loss from removal.
- (iii) Any removal is conducted in accordance with relevant provisions of national and/or local laws, regulations, and protected area management plans and national obligations under international laws, and employs the best available techniques.

<i>Name of Project, Subproject and Location</i>
Project (indicate name of project) welcomes complaints, suggestions, comments and queries regarding the project implementation and its stakeholders. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing "(CONFIDENTIAL)" above your name. Thank you.

Contact Information					
Name			Gender	☐ Male ☐ Female	
Home Address			Age		
			Phone No.		
City/Province			Email		
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:					

How do you want us to reach you for feedback or update on your comment/grievance?

Portion to be filled in by DPWH staff:

Date received:	
Received through:	☐ In person ☐ mail ☐ email ☐ fax ☐ phone ☐ sms
Name of staff who received comment/complaint	
Position of staff:	
Type of Grievance:	
Remarks	
Signature of staff	

Updates on the case:

Date:	Update	Updated by (Name, Signature and Designation)

Environmental Assessment and Review Framework

Project Number: 52313-001
November 2018

Republic of the Philippines: Emergency Assistance
for the Reconstruction and Recovery of Marawi

Output 3: Restoring Water Utilities and Health
Infrastructure

CURRENCY EQUIVALENTS

(as of 1 October 2018)

Currency unit	–	peso/s (₱)
₱1.00	=	\$0.0185
\$1.00	=	₱54.035

ABBREVIATIONS

ADB	–	Asian Development Bank
ARMM	–	Autonomous Region in Muslim Mindanao
BMCRRP	–	Bangon Marawi Comprehensive Rehabilitation and Recovery Program
CNC	–	certificate of non-coverage
CHO	–	City Health Office
DAO	–	DENR Administrative Order
DENR	–	Department of Environment and Natural Resources
DEO	–	District Engineering Office of the DPWH
DGRC	–	District Grievance Redress Committee
DOH	–	Department of Health
DPWH	–	Department of Public Works and Highway
EA	–	executing agency
EARF	–	environmental assessment and review framework
ECC	–	environmental compliance certificate
ECA	–	environmentally critical area
ECP	–	environmentally critical project
EIA	–	environmental impact assessment
EIS	–	environmental impact statement
EMB	–	environmental management bureau
EMP	–	environmental management plan
ESSD	–	environment and social safeguards division of DPWH
GRM	–	grievance redress mechanism
HUDCC	–	Housing and Urban Development Coordinating Council
IEE	–	initial environmental examination
IEEC	–	initial environmental examination checklist report
IEER	–	initial environmental examination report
IPHO	–	Integrated Provincial Health Office
LGU	–	local government unit
LWUA	–	Local Water Utilities Administration
MCWD	–	Marawi City Water District
NEDA	–	National Economic and Development Authority
PEISS	–	Philippine Environmental Impact Statement System
PMU	–	project management unit
SPS	–	ADB Safeguard Policy Statement, 2009
TFBM	–	Task Force Bangon Marawi
UCCRTF	–	Urban Climate Change Resilience Trust Fund

This environmental assessment and review framework is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the [“terms of use”](#) section on ADB's website.

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

I. INTRODUCTION

1. The Government of the Philippines has requested ADB to provide emergency assistance combining a \$400 million Emergency Assistance Loan (EAL) and \$10 million in grants to support the reconstruction of Marawi. The emergency assistance for the reconstruction and recovery of Marawi (ERRM) is structured to provide the Government of the Philippines (government) with immediate and flexible financing to implement programs, projects and activities (PPAs) included in the *Bangon Marawi Comprehensive Rehabilitation and Recovery Program* (BMCRRP).¹ The ERRM comprises of four outputs: (i) fiscal support to meet new public spending needs arising from the government's recovery program; (ii) reestablishing connectivity in Marawi by building back better public infrastructure; (iii) restoring water utilities and health infrastructure; and (iv) improving social services and livelihoods to affected persons.

2. Output 3 for the ERRM will comprise a \$5 million grant from the Urban Climate Change Resilience Trust Fund (UCCRTF). It will comprise a water supply component and a health component.

3. Output 3 was developed a per the following general criteria:

- (i) Support the recovery of Marawi and surrounding municipalities hosting internally displaced persons (IDPs) and are included in the BMCRRP;
- (ii) Can commence in 2018 and be completed by end 2020; and
- (iii) Are high impact, with a focus on social infrastructure and basic services

4. The ADB assistance for Output 3 comprises a \$5 million grant to support projects that will restore access of the affected communities and IDPs to critical services in water supply provision and health. The grant will have a water supply component and a health component.

5. The water supply component will finance reconstruction and rehabilitation of water supply infrastructure in area of the existing water supply system, comprising 19 barangays currently served by Marawi City Water District (MCWD) and develop a comprehensive master plan for the city on water supply, septage/sewerage and drainage. The master plan shall involve consultations with the local communities, ensuring participation of women and marginalized groups. The new infrastructure will improve 24-hour supply of water with a minimum pressure of 10 psi. The grant will build on the study conducted by Maynilad with support from the International Committee of the Red Cross (ICRC) which was completed in August 2018. The water supply component supports items 118, 119 and 120 in the physical infrastructure PPAs under the BMCRRP.

6. The health component will finance the construction of two local health units, procurement of mobile health facilities, and institutional and operational support. The grant will finance the construction of 2 local health units (an Urban Health Unit in Marawi; and a Rural Health Unit in Piagapo) as model health units that meet or exceed national standards. The health units will incorporate climate resilient features (solar powered refrigeration), be well equipped, have birthing facilities, and have provisions for water supply and sanitation.² The output will also provide mobile

¹ Government of the Philippines, National Economic and Development Authority-Regional Development Office. 2018. *Bangon Marawi Comprehensive Rehabilitation and Recovery Program*. Manila.

² The two health units will be equipped to meet the 4:1 service delivery requirement, comprising (i) *Tamang Serbisyo sa Kalusugan ng Pamilya* (TSeKaP, a primary health care package under the Philippine Health Insurance Corporation); (ii) Maternal Care Package; (iii) Directly observed treatment, short-course for tuberculosis (TB DOTS) and (iv) Animal Bite Services.

health facilities (3 mobile health clinics, 2 ambulances, 2 patient transport vehicles and 1 monitoring vehicle) to restore essential health services, including sexual and reproductive health services and psychological first aid, to Marawi City and surrounding areas hosting IDPs. The provision of mobile health facilities will enable the restoration of essential health services to Marawi City (through the City Health Office) and surrounding areas hosting IDPs (through the Integrated Provincial Health Office). The health component support related to items 163 and 168 in the physical infrastructure PPAs and items 37, 39, 41 and 51 in the social services PPAs under the BMCRRP. The procurement of mobile health facilities is required to deliver items 35 to 37 in the social services PPAs.

7. The grant will also provide institutional and operational support related to the above activities.

8. According to the Philippine Statistics Authority, Marawi City is a highly urbanized city. In broad terms, the project will cover Marawi City (excluding the most affected area) and the surrounding areas where IDPs from Marawi City have settled. The infrastructure investments are located in Marawi City (water supply and urban health unit) and Piagapo (rural health unit), while the mobile health facilities will cover Marawi city as well as the first and second congressional district areas of Lanao Del Sur province.

9. The purpose of this environmental assessment and review framework (EARF) is to: (i) describe the project and its subprojects and/or components; (ii) explain the general anticipated environmental and/or social impacts of the components or subprojects to be financed under the proposed project; (iii) specify the requirements that will be followed in relation to subproject screening and categorization, assessment, and planning, including arrangements for meaningful consultation with affected people and other stakeholders and information disclosure requirements and, where applicable, safeguard criteria that are to be used in selecting subprojects and/or components; (iv) assess the adequacy of the borrower's/client's capacity to implement national laws and ADB's requirements and identify needs for capacity building; (v) specify implementation procedures, including the budget, institutional arrangements, and capacity development requirements; (vi) specify monitoring and reporting requirements; and (vii) describe the responsibilities of the borrower/client and of ADB in relation to the preparation, implementation, and progress review of safeguard documents of subprojects.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

A. Environmental Legislation

10. The PEISS was established under Presidential Decree 1586 and is currently being implemented through its implementing rules and regulations contained in DENR Administrative Order No. 30, series of 2003 (DAO 03-30), which established the Revised Procedural Manual, together with Memorandum Circulars No. 2011-005, and 2010-14. The system categorizes environmentally critical projects (ECPs) as projects with significant potential to cause negative environmental impacts which have been declared as ECPs through Proclamation Nos. 2146 and 803. ECPs are grouped into four main categories, namely: (i) heavy industries, (ii) resource extractive industries, (iii) infrastructure projects, and (iv) golf courses. **Appendix 1** presents the list of ECP types.

11. An area is considered an environmentally critical area (ECA) if it exhibits any of the following characteristics (**Appendix 1**):

- i. areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries;
- ii. areas set aside as aesthetic, potential tourist spots;
- iii. areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife;
- iv. areas of unique historic, archeological, geological, or scientific interests;
- v. areas which are traditionally occupied by cultural communities or tribes;
- vi. areas frequently visited and or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.);
- vii. areas with critical slopes;
- viii. areas classified as prime agricultural lands;
- ix. recharged areas of aquifers;
- x. water bodies;
- xi. mangroves; and
- xii. coral reefs.

1. Grouping of Subprojects

12. *Group I:* An ECP located in a ECA or a non-ECA - required to secure an Environmental Compliance Certificate (ECC) by submitting an Environmental Impact Statement (EIS) to the Central Office of the Environmental Management Bureau (EMB) of DENR.

13. *Group II:* A non-ECP located in an ECA - required to secure an ECC by submitting an IEE or an IEE Checklist to the Regional Office of the EMB where the subproject will be located.

14. *Group III:* A non-ECP located in a non-ECA - this includes subprojects intended to directly enhance environmental quality or address existing environmental problems. Group III subprojects are unlikely to cause adverse environmental impacts and are not covered by the PEISS. Group III subprojects are issued a Certificate of Non-coverage (CNC) upon submission of an application online to the EMB.

15. *Group IV:* Subprojects that are co-located (a mix of subprojects in a contiguous area optionally applied as one subproject) and require programmatic EIS regardless of capacity, area, and number of locators/components.

16. *Group V:* Covers unclassified subprojects that are required to submit a Project Description Report as an interim documentary requirement. Unclassified subprojects may be covered or not covered by the PEISS subject to EMB review of the subproject description.

2. Environmental Impact Assessment Reports

17. EIA-covered subprojects in Groups I, II and IV require either an (i) EIS, (ii) IEER, or (iii) IEEC, depending on subproject type, location, magnitude of potential impacts and project threshold. For non-covered subprojects in Groups II and III, a (v) Project Description Report (PDR) is the appropriate document to secure a decision from DENR-EMB. The PDR is a “must” requirement for environmental enhancement and mitigation projects in both ECAs (Group II) and non-ECAs (Group III) to allow the EMB to confirm the benign nature of proposed operations for eventual issuance of a Certificate of Non-Coverage (CNC). All other Group III (non-covered) subprojects do not need to submit PDRs – application is at the option of the proponent should it

need a CNC for its own purposes, e.g. financing prerequisite. For Group V projects, a PDR is required to ensure new processes/technologies or any new unlisted subproject does not pose harm to the environment. The Group V PDR is a basis for either issuance of a CNC or classification of the subproject into its proper group.

a. Environmental Impact Statement

18. The EIS is a comprehensive study of the significant impacts of a subproject on the environment. It includes an EMP/Program that the proponent will fund and implement to protect the environment. The EIS is a document, prepared and submitted by the subproject proponent and/or EIA consultant that serves as an application for an ECC.

b. Initial Environmental Examination Report

19. An IEER is a document similar to an EIS, but with reduced details and depth of assessment and discussion.

c. Initial Environmental Examination Checklist Report

20. An IEEC Report is a simplified checklist version of the IEER, prescribed by the DENR to be filled up by the proponent to identify and assess a subproject's environmental impacts and the mitigation/enhancement measures to address such impacts.

21. The IEEC Report forms have been designed to simplify and standardize EIA reports so that minimal technical expertise is required to fill up of the form, which shall serve as the EIS submission for ECC applications. The checklist contains a series of questions that deals with issues and concerns about the proposed subproject and its environment. The checklist also provides information on the proposed subproject's environmental impact, both positive and negative. The information contained in the checklist will serve as a basis for the review and assessment of EMB's Regional Office for the issuance or denial of an ECC application.

22. The IEEC Report is applicable for the following types of subprojects that are covered under the provisions of existing guidelines on the PEISS:

- i. Batching and Crushing Plants
- ii. Fisheries/aquaculture Projects
- iii. Food & Food By-product and Beverages Manufacturing Plants
- iv. Non-Food Manufacturing (textile, rubber, chemical) Plants
- v. Subdivisions/Housing Projects
- vi. Building Projects (commercial, institutional, land transportation terminal,
- vii. Motels, hotels, condominiums/apartelles and storage facilities)
- viii. Cemetery and other Funeral Facility Projects
- ix. Livestock /Poultry Projects
- x. Resorts and other Tourism/Leisure Projects
- xi. Roads and Bridges
- xii. Water Supply Projects
- xiii. Irrigation & Flood Control Projects
- xiv. Waste Management Projects

3. Environmental Compliance Documents

a. Environmental Compliance Certificate

23. The Environmental Compliance Certificate (ECC) is a document issued by the EMB certifying that the proponent has complied with all the requirements of the PEISS and has committed to implement its approved EMP. The ECC also provides guidance to other agencies and to LGUs on EIA findings and recommendations, which need to be considered in their respective decision-making process.

b. Certificate of Non-Coverage

24. The Certificate of Non-Coverage (CNC) is a document issued by the EMB certifying that a project or undertaking is not covered by the PEISS and is not required to secure an ECC. A PDR may be submitted at the option of the proponent should the proponent need a CNC for its own purposes³.

4. Philippine EIA Process

25. **Table 1** below summarizes the Philippine EIA process:

Table 1. Philippine EIA process

1. Screening determines if a project is covered or not covered by the PEISS. If a project is covered, screening further determines what document type the project should prepare to secure the needed approval, and what the rest of the requirements are in terms of EMB office of application, endorsing and decision authorities, duration of processing.
2. Public consultation involves the gathering of information, concerns, opinions and suggestions from the public through meetings, interviews, focus group discussions and other similar means. Stakeholder involvement will be initiated early through information and education campaign (IEC) prior to scoping.
3. Scoping is a proponent-driven multi-sectoral formal process of determining the focused Terms of Reference of the EIA Study. Scoping identifies the most significant issues/impacts of a proposed project, and then, delimits the extent of baseline information to those necessary to evaluate and mitigate the impacts. The need for and scope of an Environmental Risk Assessment (ERA) is also done during the scoping session. Scoping is done with the local community through Public Scoping and with a third party EIA Review Committee (EIARC) through Technical Scoping, both with the participation of the DENR-EMB. The process results in a signed Formal Scoping Checklist by the review team, with final approval by the EMB Chief.
4. The EIA study involves a description of the proposed project and its alternatives, characterization of the project environment, impact identification and prediction, evaluation of impact significance, impact mitigation, formulation of Environmental Management and Monitoring Plan, with corresponding cost estimates and institutional support commitment. The study results are presented in an EIA Report for which an outline is prescribed by EMB for every major document type.
5. Review of EIA reports normally entails an EMB procedural screening for compliance to minimum requirements specified during Scoping, followed by a substantive review of either composed third party experts commissioned by EMB as the EIA Review Committee for PEIS/EIS-based applications, or DENR/EMB internal specialists, the Technical Committee, for IEE-based applications. EMB evaluates the EIARC recommendations and the public's inputs during public consultations/hearings in the process of recommending a decision on the application. The EIARC Chair signs EIARC recommendations including issues outside the mandate of the EMB. The entire EIA review and evaluation process is summarized in the Review Process Report (RPR) of the EMB, which includes a draft decision document.
6. Decision making involves evaluation of EIA recommendations and the draft decision document, resulting to the issuance of an ECC, CNC or Denial Letter. When approved, a covered project is issued its certificate of Environmental

³ Under DENR Memorandum Circular No. 2010-14 issued on June 29, 2010, projects below the threshold of coverage based on the existing procedural manual for DAO 2003-30, CNC applications shall no longer require submission of Project Description Reports (PDR). The prescribed 1-page Application Form to be processed in the Automated Processing System is sufficient.

Compliance Commitment (ECC) while an application of a non-covered project is issued a Certificate of Non-Coverage (CNC). Endorsing and deciding authorities are designated by AO 42, and further detailed in this Manual for every report type. Moreover, the Proponent signs a sworn statement of full responsibility on implementation of its commitments prior to the release of the ECC. The ECC is then transmitted to concerned LGUs and other GAs for integration into their decision-making process. The regulated part of EIA Review is limited to the processes within EMB control. The timelines for the issuance of decision documents provided for in AO 42 and DAO 2003-30 are applicable only from the time the EIA Report is accepted for substantive review to the time a decision is issued on the application.

7. *Monitoring, validation and evaluation/audit* stage assesses performance of the Proponent against the ECC and its commitments in the Environmental Management and Monitoring Plans to ensure actual impacts of the project are adequately prevented or mitigated.

III. ANTICIPATED ENVIRONMENTAL IMPACTS

26. Detailed assessment of impacts will be carried out during the preparation of subproject environmental assessment reports based on actual sites conditions, location, scope and other related aspects which are not known at the moment. Below are general descriptions of anticipated impacts from implementation of the proposed civil works and operation related to water utilities and health infrastructure.

- i. **Air quality and Noise:** Earthworks and operation of heavy equipment on construction sites such as excavators, dump trucks, etc. will result to dust emission and noise levels that will be likely above applicable standards and existing ambient noise levels.
- ii. **Surface Water Quality.** Construction works in or near water bodies can obstruct water flow or exacerbate flooding. Operation of machinery can lead to contamination of water quality from gasoline, oil, grease, and chemicals. Improper handling of fuel and chemicals can lead to accidental spills or leaks of toxic substances. During operation, discharge of untreated wastewater from health facilities will lead to contamination of surrounding surface water bodies and pose hazard to public health.
- iii. **Soil and Groundwater Contamination:** Construction activities where heavy machinery is operated, soil contamination by oil and fuel may occur. Groundwater contamination by construction wastes and spills is also possible; as is contamination from inadequate sanitation and improper waste disposal during construction and operation phases. Inadequate protection of the water distribution system may also lead to pollution of water supply.
- iv. **Solid Wastes.** Improper collection and disposal of wastes during construction and operation phases may have impacts on water quality, flora and fauna, occupational and public health. Wastes (pathological and chemical/reagents) from operation of health facilities may also pose hazards to public health.
- v. **Vegetation.** Direct loss of vegetation due to civil works.
- vi. **Unsafe water.** Delivery of unsafe water due to insufficient treatment and unsatisfactory supply system.
- vii. **Other Potential Impacts.** Other potential impacts include, but are not limited to, traffic and access obstruction during pipe laying as well as occupational and community health and safety risks during construction and operation,.

27. Environmental guidelines⁴ to be applied for the project are as follows:

- i. Ambient air quality: National Ambient Air Quality Guideline Values (Republic Act 8749-Philippine Clean Air Act of 1999)
- ii. Noise: Guidelines for Community Noise, World Health Organization (WHO), 1999
- iii. Water quality: Water Quality Guidelines and General Effluent Standards of 2016 (DENR Administrative Order No. 2016-08)
- iv. Philippine National Standards for Drinking Water 2007

⁴ The design, construction, and operation of the project 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. 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 this document.

IV. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS

A. ADB Environmental Assessment Procedures for the Subprojects

28. DPWH will ensure that the following activities are undertaken for each subproject prior to implementation.

1. Screening and Environmental Categorization

29. A rapid environmental assessment (REA) using the ADB REA Checklist which also include a checklist for preliminary climate risk screening (**Appendix 2**), and environmental categorization form (**Appendix 3**) will be accomplished by DPWH-ESSD for review and approval of ADB.

2. Preparation of Initial Environmental Examination (IEE) and/or Environmental Impact Assessment (EIA)

30. DPWH will ensure that environmental assessment documents prepared for all subprojects to be funded under the grant will, to the extent possible, meet both ADB and Philippine government requirements, in order to streamline the environmental procedures required by both ADB and the government.

31. Attached as Appendix 3 is the outline of an environmental assessment report based on ADB SPS 2009. In preparing the reports, relevant primary data through field sampling/surveys will be generated and secondary data will be collected for project-influenced sites. Further guidance on the environmental assessment and related aspects are found in Appendix 1 (Safeguards Requirements 1: Environment) of the ADB SPS 2009 (Appendix 4).

3. Review of IEEs/EIAs

32. DPWH will submit and endorse to ADB the draft IEE/EIA for review, clearance and posting on ADB website before implementation of each subproject.

33. In case an ECC is required based on Government requirements, DPWH will ensure that EIAs/IEEs will be submitted to the Environmental Management Bureau (EMB). Processing of the ECC application will follow the Philippine EIA process outlined in **Table 1**.

34. It is the responsibility of the DPWH to ensure that subprojects comply with the environment-related legal framework, whether at the national or local level.

4. Sub-project Implementation

35. No works for a subproject with environmental impacts shall be awarded before:

- i. the IEE or EIA has received the final approval from DENR and clearance from ADB
- ii. the IEE or EIA has been endorsed by DPWH to ADB and disclosed on ADB website per ADB SPS requirement, and
- iii. the provisions of the EMP have been reflected in the contracts.

V. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM

A. Public Consultation

36. Meaningful stakeholder consultation and participation is part of the project preparation and implementation strategy. A meaningful consultation pertains to 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) 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. Public consultation will be undertaken during the IEE/EIA preparation to document comments from the villagers, community groups, local government, and interested NGOs.

37. During IEE/EIA preparation, public meetings will be conducted involving local government officials, residents, affected people and groups from communities in the vicinity of the proposed subprojects: (i) inform them of the proposed subproject and potential environmental impacts, and (ii) to document concerns/issues that people may have on the project. Consultations will have the following agenda:

- i. Presentation of the proposed works under the subproject;
- ii. Presentation of subproject objectives and expected positive and negative environmental impacts, covering the construction phase and operational impacts;
- iii. Invitation for feedback in respect of environment-related concerns that the public may have, and suggested means to resolve issues;
- iv. Disclosure of and feedback on the Grievance Redress Mechanism (GRM)

38. For the consultations, the dates, venues, attendance sheets, topics covered, issues raised, project's response to issues concerns raised will be documented and included in the IEE/EIA.

B. Information Disclosure

39. DPWH will endorse the following documents to ADB for disclosure on its website:

- i. final IEE
- ii. draft and final EIA
- iii. a new or updated IEE/EIA and corrective action plan prepared during project implementation;
- iv. semi-annual environmental monitoring reports; and
- v. annual external environmental monitoring reports (for Category A subprojects)

40. The draft EIA will need to be publicly disclosed at least 120-days before the subproject is implemented. However, ADB Management can waive the 120-day rule for disclosure of the EIA and the two-step public consultation requirement for Category A projects on a project-by-project basis⁵. The IEE/EIA need to be cleared by ADB before a subproject is implemented.

⁵ ADB's Disaster and Emergency Policy (2004)

C. Grievance Redress Mechanism

41. A subproject-specific grievance redress mechanism (GRM) will be established at the DPWH District Engineering Office (DEO) to receive, evaluate and facilitate the complaints/grievances of affected persons on the sub-project's environmental performance. This mechanism will be disclosed in public consultations during IEE preparation.

42. Each DEO will appoint an Environment Officer, and will organize the District Grievance Redress Committee (DGRC) to be chaired by the DPWH District Engineer. Members will include the following: (i) environment officer of DEO, (ii) contractor's highest official at the site such as the Construction Manager or the Construction Superintendent; (iii) contractor's environment officer, (iv) barangay chairperson; and (v) environment specialist of the construction supervision consultant. For the quick filing of complaints, the DGRC will use the attached grievance intake form (**Appendix 6**). The DEO's environment officer will be responsible for registration of grievances and communication with the aggrieved party.

43. The steps to be followed in filing complaints and the procedures for redress are the following:

- (i) complainant will provide the background and file the complaint verbally or in writing to the DEO, and the DEO's Environment Officer will assist the complainant in filling-up the grievance intake form;
- (ii) within 2 working days, the Environment Officer, contractor's representative, and complainant will discuss if the complaint can be resolved without calling for a DGRC meeting;
- (iii) within 3 days of lodging the complaint, the DEO's environment officer will provide the complainant a written feedback on the process, steps and timeframe for resolving the complaint.
- (iv) if the complaint cannot be resolved, a DGRC meeting with the complainant will be called within 5 working days;
- (v) the DGRC will have 15 working days to resolve the complaint;
- (vi) The complainant will receive feedback from the DEO's environment officer within 5 working days after the various steps of the GRM are completed.
- (vii) if unsatisfied with the decision, the existence of the DGRC will not impede the complainant's access to the Government's judicial, administrative remedies or through concerned government agencies (e.g., Community Environment and Natural Resources Office and Provincial Environment and Natural Resources Office of DENR, Regional offices of the Environmental Management Bureau, etc.)

44. The DGRC will receive, follow-up and prepare monthly reports regarding all complaints, disputes or questions received about the Project and corresponding actions taken to resolve the issues. These reports will be included in the semi-annual environmental monitoring reports to be submitted by DPWH to ADB.

VI. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

A. Responsibilities

45. **Steering Committee.** Project oversight will be provided through a steering committee comprising DPWH, LWUA, MCWD, Marawi LGU, HUDCC/TFBM, DOH-CO and DOH-ARMM. The steering committee will advise all ADB-financed Marawi project be convened regularly to provide guidance and recommendations to the EA and IA on all aspects of grant implementation. The steering committee members will review achievements and provide guidance on key issues, including ensuring that outputs comply with required standards and specifications, that counterpart staff and resources are made available, that beneficiaries are engaged, and that relevant agencies collaborate effectively to deliver the project outputs. The existing TFBM Technical Working Committee for WASH concerns, WASH cluster, and health cluster will serve as the technical working groups for the project.

46. **DPWH.** The Executing Agency (EA) for the project will be the Department of Public Works and Highways (DPWH). As the executing agency, DPWH will be responsible for overall oversight, strategic and policy direction. The EA will also be responsible for organizing and convening the steering committee, obtaining all relevant government approvals related to the works, and monitoring and reporting on project activities and outputs. The Environmental and Social Safeguards Division (ESSD), Planning Service will provide technical guidance and support in the implementation and monitoring of the environmental management plan (EMP).

47. **Environmental and Social Safeguards Division (ESSD), Planning Service, DPWH.** The ESSD shall provide technical guidance and support in the implementation and monitoring of the EMP and will have overall responsibility in ensuring project compliance to Government environment requirements and ADB SPS 2009. Such task will be carried out by ESSD in close coordination with the environmental safeguard staff at the DPWH Regional Offices and Office of the District Engineer, LWUA, DOH-CO and DOH-ARMM throughout project implementation.

48. **LWUA and DOH.** As the implementing agencies (IA), LWUA and DOH will be responsible for the overall delivery of outputs, including ensuring that outputs are delivered complying with agreed standards/quality. In particular, LWUA will be the IA for the water supply component while DOH will be the IA for the health component. As the IAs, LWUA and DOH will liaise and coordinate closely with other agencies relevant to their outputs (e.g., MCWD, DOH-ARMM, IPHO, CHO, LGU, etc.) to ensure field support for grant activities and works. For their respective outputs, LWUA and DOH will also establish and oversee project accounting and auditing; prepare and submit quarterly reports to the EA for submission to ADB; ensure compliance with relevant grant covenants; approve and allocate counterpart budget (if applicable) and ensure that sufficient resources are allocated for necessary O&M. To ensure effective project implementation, LWUA and DOH will make sure that the following will be systematically implemented:

- (i) Procurement of Goods, Works, and Services
 - Procure all civil works, goods and consulting services as per ADB's policies and regulations.
- (ii) Safeguards Compliance
 - Implement and monitor environmental safeguards compliance, including through submission of quarterly reports to the EA
 - Coordinate with the EA, Steering Committee and Technical Working Groups regarding any environmental issues related to the grant.

49. **ADB.** The ADB will have the following responsibilities to ensure compliance with the ADB SPS: (a) approve the environmental categorization of each subproject, (b) review and clear

IEEs/EIAs prepared based on ADB SPS, and (c) publicly disclose final IEEs, draft and final EIAs on ADB's website.

B. Institutional Capacity

50. DPWH has a full-scale Environmental and Social Safeguards Division (ESSD) since 1999 when they started it as part of a World Bank (WB) project requirement. ESSD has been and is currently involved in various projects financed by international financing institutions such as WB, ADB and JICA. ESSD is now an established Division that is involved with the safeguards related issues of all projects, and the specialist staff have gathered much experience for the safeguards implementation. Staff salary comes from the regular planned budget. The DPWH staff will be supported by an environment safeguard specialists (consultants) in the preparation of environmental assessment reports as well as in the conduct of EMP implementation monitoring and preparation of environmental monitoring reports. LWUA and DOH will be supported by an Environment Specialist, initially recruited under the direct charge component of the UCCRTF grant, who will be assigned to the project management unit (PMU).

C. Staffing Requirement and Budget

51. The costs for environmental safeguard activities (e.g., IEE and EIA preparation) for subprojects to be prepared during implementation will be undertaken by environment specialists (consultants) to be engaged under the grant. During construction phase, the cost of mitigation measures will be incorporated into the contractor's costs since the environmental management plan will be part of the tender documents. DPWH will update the IEE/EIA should there be changes to the project (e.g., design, location, construction methodology, etc.) that will result to adverse environmental impacts. The updated IEE will be reviewed, cleared and publicly disclosed by ADB prior to implementation of said changes.

VII. MONITORING AND REPORTING

52. Environmental monitoring and report preparation during civil works will be carried out by DPWH's ESSD with assistance from environment specialists (consultants) to be engaged under the grant. DPWH will submit semi-annual environmental monitoring reports to ADB for review and disclosure on ADB's website.

53. For Category A subprojects, DPWH will also engage an external environmental monitor (independent) to verify, on an annual basis, the information contained in the SEMRs.

54. ADB will review subproject environmental performance against the commitments as agreed in the legal documents and IEE/EIA. The extent of ADB's monitoring and supervision activities will be commensurate with the subproject's risks and impacts. Monitoring and supervising of environmental safeguards will be integrated into the project performance management system. ADB will monitor subprojects 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 subprojects with adverse environmental impacts;
- ii. Review semi-annual environmental monitoring reports submitted by DPWH to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;

- iii. Work with DPWH to rectify, to the extent possible, any non-compliance with their safeguard commitments, as covenanted in the legal agreements and as specified in the IEE/EIA, and exercise remedies to re-establish compliance as appropriate; and
- iv. Prepare a project completion report that assesses whether the objective and desired outcomes of the safeguard plans have been achieved.

**Appendix 1:
Environmentally Critical Projects (ECPs) and
Environmentally Critical Areas (ECAs)**

In accordance with Presidential Proclamation No. 2146, series of 1981 and Proclamation No. 803 (Series of 1996), the four (4) main categories of ECPs are (1) heavy industries; (2) resource extractive industries; (3) infrastructure projects and (4) golf course projects.

1. Heavy Industries
 - a) Non-Ferrous Metal Industries
 - b) Iron and Steel Mills
 - c) Petroleum and Petrochemical Industries
 - d) Smelting Plants
2. Resource Extractive Industries
 - a) Non-Ferrous Metal Industries
 - b) Major Mining and Quarrying Projects
 - c) Forestry Projects
 - d) Dikes for/and Fishpond Development Projects
3. Infrastructure Projects
 - a) Major Dams
 - b) Major Power Plants
 - c) Major Reclamation Projects
 - d) Major Roads and Bridges
4. Golf Course Projects

In accordance with Presidential Proclamation No. 2146, series of 1981, following is the list of environmentally critical areas (ECAs):

1. All areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries;
2. Areas set aside as aesthetic potential tourist spots;
3. Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine Wildlife (flora and fauna);
4. Areas of unique historic, archaeological, or scientific interests;
5. Areas which are traditionally occupied by cultural communities or tribes;
6. Areas frequently visited and/or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.);
7. Areas with critical slopes;
8. Areas classified as prime agricultural lands;

9. Recharged areas of aquifers;

10. Water bodies characterized by one or any combination of the following conditions;

- a) tapped for domestic purposes
- b) within the controlled and/or protected areas declared by appropriate authorities
- c) which support wildlife and fishery activities

11. Mangrove areas characterized by one or any combination of the following conditions:

- a) with primary pristine and dense young growth;
- b) adjoining mouth of major river systems;
- c) near or adjacent to traditional productive fry or fishing grounds;
- d) which act as natural buffers against shore erosion, strong winds and storm floods;
- e) on which people are dependent for their livelihood.

12. Coral reefs characterized by one or any combinations of the following conditions:

- a) With 50% and above live coralline cover;
- b) Spawning and nursery grounds for fish;
- c) which act as natural breakwater of coastlines.

Appendix 2:

Rapid Environmental Assessment (REA) Checklist

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 ADB.
- (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:

Subproject Name:

WATER SUPPLY

Screening Questions	Yes	No	Remarks
A. PROJECT SITING IS THE PROJECT AREA...			
▪ DENSELY POPULATED?			
▪ HEAVY WITH DEVELOPMENT ACTIVITIES?			
▪ ADJACENT TO OR WITHIN ANY ENVIRONMENTALLY SENSITIVE AREAS?			
• CULTURAL HERITAGE SITE			
• PROTECTED AREA			
• WETLAND			
• MANGROVE			
• ESTUARINE			
• BUFFER ZONE OF PROTECTED AREA			
• SPECIAL AREA FOR PROTECTING BIODIVERSITY			
• BAY			
B. POTENTIAL ENVIRONMENTAL IMPACTS Will the Project cause...			
▪ pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?			

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

Screening Questions	Yes	No	Remarks
▪ delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?			
▪ accidental leakage of chlorine gas?			
▪ excessive abstraction of water affecting downstream water users?			
▪ competing uses of water?			
▪ increased sewage flow due to increased water supply			
▪ increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant			
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ social conflicts if workers from other regions or countries are hired?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during operation and construction?			
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			

GENERAL

Screening Questions	Yes	No	Remarks
A. PROJECT SITING IS THE PROJECT AREA ADJACENT TO OR WITHIN ANY OF THE FOLLOWING ENVIRONMENTALLY SENSITIVE AREAS?			
▪ CULTURAL HERITAGE SITE			
▪ LEGALLY PROTECTED AREA (CORE ZONE OR BUFFER ZONE)			
▪ WETLAND			
▪ MANGROVE			
▪ ESTUARINE			
▪ SPECIAL AREA FOR PROTECTING BIODIVERSITY			
B. POTENTIAL ENVIRONMENTAL IMPACTS WILL THE PROJECT CAUSE...			
▪ impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources?			
▪ disturbance to precious ecology (e.g. sensitive or protected areas)?			
▪ alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?			
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			
▪ increased air pollution due to project construction and operation?			
▪ noise and vibration due to project construction or operation?			
▪ involuntary resettlement of people? (physical displacement and/or economic displacement)			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?			
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?			
▪ social conflicts if workers from other regions or countries are hired?			

Screening Questions	Yes	No	Remarks
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			
▪ generation of solid waste and/or hazardous waste?			
▪ use of chemicals?			
▪ generation of wastewater during construction or operation?			

▪ 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 to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.			

Country/Project Name:

Subproject Name:

Location:

Screening Questions		Score	Remarks ¹
Location and Design of project	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		
	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)?		
Materials and Maintenance	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.		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?		
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

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

Result of Initial Screening (Low, Medium, High): _____

Other Comments: _____

Prepared by: _____

Designation/Agency: _____

Date: _____

¹ 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.

Appendix 3:

OUTLINE OF AN ENVIRONMENTAL ASSESSMENT REPORT (EIA/IEE)

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

A. Executive Summary

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

B. Policy, Legal, and Administrative Framework

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

C. Description of the Project

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

D. Description of the Environment (Baseline Data)

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

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives (*For Category A Projects only*)

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

G. Information Disclosure, Consultation, and Participation

This section:

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

H. Grievance Redress Mechanism

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

I. Environmental Management Plan

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

- (i) Mitigation:
 - (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
 - (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and
 - (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

Sample environmental mitigation summary table:

Environmental Mitigation Measures				
Potential Environmental Impact	Mitigation Measures	Institutional Responsibilities		Cost estimates
		Implementation	Monitoring	
Pre-construction				
Construction				
Operation				

(ii) Monitoring:

- (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and
- (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

Sample environmental monitoring summary table:

Environmental Monitoring Plan					
Aspects/ Parameters to be monitored	Location	Means of Monitoring	Monitoring Frequency	Monitoring Responsibility	Monitoring Cost
Pre-construction					
Construction					
Operation					

(iii) Implementation arrangements:

- (a) specifies the implementation schedule showing phasing and coordination with overall project implementation;
- (b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and
- (c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events

to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

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

Appendix 4:
ADB Safeguard Policy Statement (2009)
Safeguard Requirements 1: Environment

A. Introduction

1. Safeguard Requirements 1 outlines the requirements that borrowers/clients are required to meet when delivering environmental safeguards for projects supported by the Asian Development Bank (ADB). It discusses the objectives and scope of application, and underscores the requirements for undertaking the environmental assessment process. These requirements include assessing impacts, planning and managing impact mitigations, preparing environmental assessment reports, disclosing information and undertaking consultation, establishing a grievance mechanism, and monitoring and reporting. The document also includes particular environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical cultural resources. The applicability of particular requirements is established through the environmental assessment process and compliance with the requirements is achieved through implementation of environmental management plans agreed to by ADB and the borrower/client.

B. Objectives

2. 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.

C. Scope of Application

3. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects).

D. Requirements

1. Environmental Assessment

4. Environmental assessment is a generic term used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. At an early stage of project preparation, the borrower/client will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned NGOs. If potentially adverse environmental impacts and risks are identified, the borrower/client will undertake an environmental assessment as early as possible in the project cycle. For projects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, the borrower/client will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the particular project location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental costs and benefits of

the various alternatives considered into account. The "no project" alternative will be also considered.

5. The assessment process will be based on current information, including an accurate project description, and appropriate environmental and social baseline data. The environmental assessment will consider all potential impacts and risks of the project on physical, biological, socioeconomic (occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]) and physical cultural resources in an integrated way. The project's potential environmental impacts and risks will be reviewed against the requirements presented in this document and applicable laws and regulations of the jurisdictions in which the project operates that pertain to environmental matters, including host country obligations under international law.

6. Impacts and risks will be analyzed in the context of the project's area of influence. This area of influence encompasses (i) the primary project site(s) and related facilities that the borrower/client (including its contractors) develops or controls, such as power transmission corridors, pipelines, canals, tunnels, access roads, borrow pits and disposal areas, and construction camps; (ii) associated facilities that are 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; (iii) areas and communities potentially affected by cumulative impacts from further planned development of the project, other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that are realistically defined at the time the assessment is undertaken; and (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that might occur without the project or independently of the project. Environmental impacts and risks will also be analyzed for all relevant stages of the project cycle, including preconstruction, construction, operations, decommissioning, and post closure activities such as rehabilitation or restoration.

7. The assessment will identify potential transboundary effects, such as air pollution, increased use or contamination of international waterways, as well as global impacts, such as emission of greenhouse gases and impacts on endangered species and habitats.

8. The environmental assessment will examine whether particular individuals and groups may be differentially or disproportionately affected by the project's potential adverse environmental impacts because of their disadvantaged or vulnerable status, in particular, the poor, women and children, and Indigenous Peoples. Where such individuals or groups are identified, the environmental assessment will recommend targeted and differentiated measures so that adverse environmental impacts do not fall disproportionately on them.

9. Depending on the significance of project impacts and risks, the assessment may comprise a full-scale environmental impact assessment (EIA) for category A projects, an initial environmental examination (IEE) or equivalent process for category B projects, or a desk review. An EIA report includes the following major elements: (i) executive summary, (ii) description of the project, (iii) description of the environment (with comprehensive baseline data), (iv) anticipated environmental impacts and mitigation measures, (v) analysis of alternatives, (vi) environmental management plan(s), (vii) consultation and information disclosure, and (viii) conclusion and recommendations. The annex to this appendix provides further details. An IEE, with its narrower

scope, may be conducted for projects with limited impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.

10. When the project involves existing activities or facilities, relevant external experts will perform environmental audits to determine the existence of any areas where the project may cause or is causing environmental risks or impacts. If the project does not foresee any new major expansion, the audit constitutes the environmental assessment for the project. A typical environmental audit report includes the following major elements: (i) executive summary; (ii) facilities description, including both past and current activities; (iii) summary of national, local, and any other applicable environmental laws, regulations, and standards; (iv) audit and site investigation procedure; (v) findings and areas of concern; and (vi) corrective action plan that provides the appropriate corrective actions for each area of concern, including costs and schedule.

11. When the project involves the development of or changes to policies, plans, or programs that are likely to have significant environmental impacts that are regional or sectoral, strategic environmental assessment will be required. A strategic environmental assessment report will include (i) an analysis of the scenario, (ii) an assessment of long-term and indirect impacts, (iii) a description of the consultation process, and (iv) an explanation of option selection.

2. Environmental Planning and Management

12. The borrower/client will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Where impacts and risks cannot be avoided or prevented, mitigation measures and actions will be identified so that the project is designed, constructed, and operated in compliance with applicable laws and regulations and meets the requirements specified in this document. The level of detail and complexity of the environmental planning documents and the priority of the identified measures and actions will be commensurate with the project'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.

13. 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.

14. The EMP will define expected outcomes as measurable events to the extent possible and will include performance indicators or targets that can be tracked over defined periods. It will be responsive to changes in project design, such as a major change in project location or route, or in technology, unforeseen events, and monitoring results.

15. At times, a third party's involvement will influence implementation of the EMP. A third party may be, inter alia, a government agency, a contractor, or an operator of an associated facility.

When the third-party risk is high and the borrower/client has control or influence over the actions and behavior of the third party, the borrower/client will collaborate with the third party to achieve the outcome consistent with the requirements for the borrower/client. Specific actions will be determined on a case-by-case basis.

16. The borrower/client will use qualified and experienced experts to prepare the environmental assessment and the EMP. For highly complex and sensitive projects, independent advisory panels of experts not affiliated with the project will be used during project preparation and implementation.

3. Information Disclosure

17. The borrower/client will submit to ADB the following documents for disclosure on ADB's website:

- (i) a draft full EIA (including the draft EMP) at least 120 days prior to ADB Board consideration, and/or environmental assessment and review frameworks before project appraisal, where applicable;
- (ii) the final EIA/IEE;
- (iii) a new or updated EIA/IEE and corrective action plan prepared during project implementation, if any; and
- (iv) the environmental monitoring reports.

18. The borrower/client will provide relevant environmental information, including information from the documents in para. 17 in a timely manner, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods will be used.

4. Consultation and Participation

19. The borrower/client will carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. Meaningful consultation is a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle¹ (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. Consultation will be carried out in a manner commensurate with the impacts on affected communities. The consultation process and its results are to be documented and reflected in the environmental assessment report.

5. Grievance Redress Mechanism

20. The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance. The grievance mechanism should be scaled to the risks and adverse impacts of the

¹ For environment category A projects, such consultations will necessarily include consultations at the early stage of EIA field work and when the draft EIA report is available during project preparation, and before project appraisal by ADB.

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

6. Monitoring and Reporting

21. The borrower/client will monitor and measure the progress of implementation of the EMP. The extent of monitoring activities will be commensurate with the project's risks and impacts. In addition to recording information to track performance, the borrower/client will undertake inspections to verify compliance with the EMP and progress toward the expected outcomes. For projects likely to have significant adverse environmental impacts, the borrower/client will retain qualified and experienced external experts or qualified NGOs to verify its monitoring information. The borrower/client will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The borrower/client will implement these corrective actions and follow up on these actions to ensure their effectiveness.

22. The borrower/client will prepare periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. The borrower/client will submit at least semiannual monitoring reports during construction for projects likely to have significant adverse environmental impacts, and quarterly monitoring reports for highly complex and sensitive projects. For projects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis. Such periodic reports will be posted in a location accessible to the public. Project budgets will reflect the costs of monitoring and reporting requirements.

7. Unanticipated Environmental Impacts

23. Where unanticipated environmental impacts become apparent during project implementation, the borrower/client will 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.

8. Biodiversity Conservation and Sustainable Natural Resource Management

24. The borrower/client will assess the significance of project impacts and risks on biodiversity² and natural resources as an integral part of the environmental assessment process specified in paras. 4–10. The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity.³

² The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

³ Significant conversion or degradation is (i) the elimination or severe diminution of the integrity of a habitat caused by a major, long-term change in land or water use; or (ii) the modification of a habitat that substantially.

a. Modified Habitats

25. In areas of modified habitat, where the natural habitat has apparently been altered, often through the introduction of alien species of plants and animals, such as in agricultural areas, the borrower/client will exercise care to minimize any further conversion or degradation of such habitat, and will, depending on the nature and scale of the project, identify opportunities to enhance habitat and protect and conserve biodiversity as part of project operations.

b. Natural Habitats

26. In areas of natural habitat,⁴ the project will not significantly convert or degrade⁵ such habitat, unless the following conditions are met:

- (i) No alternatives are available.
- (ii) A comprehensive analysis demonstrates that the overall benefits from the project will substantially outweigh the project costs, including environmental costs.
- (iii) Any conversion or degradation is appropriately mitigated.

27. Mitigation measures will be designed to achieve at least no net loss of biodiversity. They may include a combination of actions, such as post project restoration of habitats, offset of losses through the creation or effective conservation of ecologically comparable areas that are managed for biodiversity while respecting the ongoing use of such biodiversity by Indigenous Peoples or traditional communities, and compensation to direct users of biodiversity.

c. Critical Habitats

28. No project activity will be implemented in areas of critical habitat⁶ unless the following requirements are met:

- (i) There are no measurable adverse impacts, or likelihood of such, on the critical habitat which could impair its high biodiversity value or the ability to function.
- (ii) The project is not anticipated to lead to a reduction in the population of any recognized endangered or critically endangered species⁷ or a loss in area of the habitat concerned such that the persistence of a viable and representative host ecosystem be compromised.
- (iii) Any lesser impacts are mitigated in accordance with para. 27.

⁴ Land and water areas where the biological communities are formed largely by native plant and animal species, and where human activity has not essentially modified the area's primary ecological functions.

⁵ Significant conversion may include, for example, land clearing; replacement of natural vegetation (for example, by crops or tree plantations); permanent flooding (by a reservoir for instance); drainage, dredging, filling, or canalization of wetlands; or surface mining.

⁶ Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic, or cultural importance to local communities. Critical habitats include those areas either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization's world natural heritage sites.

⁷ As defined by the Word Conservation Union's Red List of Threatened Species or as defined in any national legislation.

29. When the project involves activities in a critical habitat, the borrower/client will retain qualified and experienced external experts to assist in conducting the assessment.

d. Legally Protected Areas

30. In circumstances where some project activities are located within a legally protected area, in addition to the requirement specified in para. 28, the borrower/client will meet the following requirements:

- (i) Act in a manner consistent with defined protected area management plans.
- (ii) Consult protected area sponsors and managers, local communities, and other key stakeholders on the proposed project.
- (iii) Implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area.

e. Invasive Alien Species

31. The borrower/client will not intentionally introduce any new alien species (that is, species not currently established in the country or region of the project) unless carried out in accordance with the existing regulatory framework for such introduction, if such a framework is present, or unless the introduction is subject to a risk assessment (as part of the environmental assessment) to determine the potential for invasive behavior. Under no circumstances must species known to be invasive be introduced into new environments. The borrower/client will undertake assessment of the possibility of accidental or unintended introduction of such invasive alien species and identify measures to minimize the potential for release.

f. Management and Use of Renewable Natural Resources

32. Renewable natural resources will be managed in a sustainable manner. Sustainable resource management is management of the use, development, and protection of resources in a way, or at a rate, that enables people and communities, including Indigenous Peoples, to provide for their current social, economic, and cultural well-being while also sustaining the potential of those resources to meet the reasonably foreseeable needs of future generations. This includes safeguarding the life-supporting capacity of air, water, and soil ecosystems. Where possible, the borrower/client will demonstrate the sustainable management of resources through an appropriate system of independent certification.

9. Pollution Prevention and Abatement

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*.⁸ 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 this document.

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

a. Pollution Prevention, Resource Conservation, and Energy Efficiency

34. The borrower/client will avoid, or where avoidance is impossible, will minimize or control the intensity or load of pollutant emission and discharge. In addition the borrower/client will examine and incorporate in its operations resource conservation and energy efficiency measures consistent with the principles of cleaner production. When the project has the potential to constitute a significant source of emissions in an already degraded area, strategies that help improve ambient conditions, such as evaluating alternative project locations and considering emissions offsets, will be introduced.

b. Wastes

35. The borrower/client will avoid, or where avoidance is not possible, will minimize or control the generation of hazardous and nonhazardous wastes and the release of hazardous materials resulting from project activities. Where waste cannot be recovered or reused, it will be treated, destroyed, and disposed of in an environmentally sound manner. If the generated waste is considered hazardous, the client will explore reasonable alternatives for its environmentally sound disposal considering the limitations applicable to its transboundary movement.⁹ When waste disposal is conducted by third parties, the borrower/client will use contractors that are reputable and legitimate enterprises licensed by the relevant regulatory agencies.

c. Hazardous Materials

36. The borrower/client will avoid the manufacture, trade, and use of hazardous substances and materials subject to international bans or phase outs because of their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer¹⁰ and will consider the use of less hazardous substitutes for such chemicals and materials.

d. Pesticide Use and Management

37. The environmental assessment will ascertain that any pest and/or vector management activities related to the project are based on integrated pest management approaches and aim to reduce reliance on synthetic chemical pesticides in agricultural and public health projects. The borrower/client's integrated pest/vector management program will entail coordinated use of pest and environmental information along with available pest/vector control methods, including cultural practices, biological, genetic and, as a last resort, chemical means to prevent unacceptable levels of pest damage. The health and environmental risks associated with pest management should be minimized with support, as needed, to institutional capacity development, to help regulate and monitor the distribution and use of pesticides and enhance the application of integrated pest management.

38. The borrower/client will not use products that fall in World Health Organization Recommended Classification of Pesticides by Hazard Classes Ia (extremely hazardous) and Ib (highly hazardous) or Class II (moderately hazardous), if the project host country lacks restrictions

⁹ Consistent with the objectives of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes.

¹⁰ Consistent with the objectives of the Stockholm Convention on Persistent Organic Pollutants and the Montreal Protocol on Substances that Deplete the Ozone Layer.

on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply and dispose of these products properly. The borrower/client will handle, store, apply and dispose of pesticides in accordance with international good practice such as the Food and Agricultural Organization's International Code of Conduct on the Distribution and Use of Pesticides.

e. Greenhouse Gas Emissions

39. The borrower/client will promote the reduction of project-related anthropogenic greenhouse gas emissions in a manner appropriate to the nature and scale of project operations and impacts. During the development or operation of projects that are expected to or currently produce significant quantities of greenhouse gases,¹¹ the borrower/client will quantify direct emissions from the facilities within the physical project boundary and indirect emissions associated with the off-site production of power used by the project. The borrower/client will conduct quantification and monitoring of greenhouse gas emissions annually in accordance with internationally recognized methodologies.¹² In addition, the borrower/client will evaluate technically and financially feasible and cost-effective options to reduce or offset project-related greenhouse gas emissions during project design and operation, and pursue appropriate options.

10. Health and Safety

a. Occupational Health and Safety

40. The borrower/client will provide workers¹³ with a safe and healthy working environment, taking into account risks inherent to the particular sector and specific classes of hazards in the borrower's/client's work areas, including physical, chemical, biological, and radiological hazards. The borrower/client will 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) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.

41. The borrower/client will apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's *Environment, Health and Safety Guidelines* (footnote 7).

b. Community Health and Safety

¹¹ Even though the significance of a project's contribution to greenhouse gas emissions varies between industry sectors, the significance threshold to be considered for these requirements is generally 100,000 tons of carbon dioxide equivalent per year for the aggregate emissions of direct sources and indirect sources associated with electricity purchased for own consumption.

¹² Estimation methodologies are provided by the Intergovernmental Panel on Climate Change (IPCC), various international organizations, and relevant host country agencies.

¹³ 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.

42. The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts. These measures will favor the prevention or avoidance of risks and impacts over their minimization and reduction. Consideration will be given to potential exposure to both accidental and natural hazards, especially where the structural elements of the project are accessible to members of the affected community or where their failure could result in injury to the community. The borrower/client will avoid or minimize the exacerbation of impacts caused by natural hazards, such as landslides or floods that could result from land use changes due to project activities.

43. The borrower/client will inform affected communities of significant potential hazards in a culturally appropriate manner. The borrower/client will be prepared to respond to accidental and emergency situations. This preparation will include response planning document(s) that addresses the training, resources, responsibilities, communications, procedures, and other aspects required to respond effectively to emergencies associated with project hazards. Appropriate information about emergency preparedness and response activities, resources, and responsibilities will be disclosed to affected communities.

44. When structural elements or components, such as dams, tailings dams, or ash ponds, are situated in high-risk locations and their failure or malfunction may threaten the safety of communities, the borrower/client will engage qualified and experienced experts, separate from those responsible for project design and construction, to conduct a review as early as possible in project development and throughout project design, construction, and commissioning.

11. Physical Cultural Resources

45. The borrower/client is responsible for siting and designing the project to avoid significant damage to physical cultural resources.¹⁴ Such resources likely to be affected by the project will be identified, and qualified and experienced experts will assess the project's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process specified in paras. 4–10.

46. When a project may affect physical cultural resources, the borrower/client will consult with affected communities who use, or have used them within living memory, for long-standing cultural purposes to identify physical cultural resources of importance and to incorporate the views of the affected communities on such resources into the borrower's/client's decision-making process. Consultation will also involve relevant national or local regulatory agencies that are entrusted with protecting physical cultural resources. The findings are disclosed as part of, and in the same manner as, the environmental assessment report, except when such disclosure would compromise or jeopardize the safety or integrity of the physical cultural resources.

47. When the project is likely to have adverse impacts on physical cultural resources, the borrower/client will identify appropriate measures for avoiding or mitigating these impacts as part of the environmental planning process specified in paras. 12–16. These measures may range

¹⁴ Defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

from avoidance to full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.

48. When the proposed location of a project is in areas where physical cultural resources are expected to be found as determined during the environmental assessment process, chance finds procedures will be included in the EMP. Chance finds shall not be disturbed until an assessment by a competent specialist is made and actions consistent with these requirements are identified.

49. The project will not remove any physical cultural resources unless the following conditions are met:

- (i) No alternatives to removal are available.
- (ii) The overall benefits of the project substantially outweigh the anticipated cultural heritage loss from removal.
- (iii) Any removal is conducted in accordance with relevant provisions of national and/or local laws, regulations, and protected area management plans and national obligations under international laws, and employs the best available techniques.

Appendix 5: Grievance Intake Form

Name of Project, Subproject and Location

Project (indicate name of project) welcomes complaints, suggestions, comments and queries regarding the project implementation and its stakeholders. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing "(CONFIDENTIAL)" above your name.

Thank you.

Contact Information			
Name		Gender	☐ Male ☐ Female
Home Address		Age	
		Phone No.	
City/Province		Email	
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:			

How do you want us to reach you for feedback or update on your comment/grievance?

Portion to be filled in by DPWH staff:

Date received:	
Received through:	☐ In person ☐ mail ☐ email ☐ fax ☐ phone ☐ sms
Name of staff who received comment/ complaint	
Position of staff:	
Type of Grievance:	
Remarks	
Signature of staff	

Updates on the case:

Date:	Update	Updated by (Name, Signature and Designation)