

# Environmental and Social Management System Arrangement

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**Public**

August 2026

Philippines: Geothermal Resource Derisking Facility

Prepared by the Landbank of the Philippines and Department of Energy for the Asian  
Development Bank (ADB).

## CURRENCY EQUIVALENTS

(as of February 2026)

|               |   |                       |
|---------------|---|-----------------------|
| Currency Unit | – | Philippine Peso (PhP) |
| PhP 1.00      | = | \$ 0.017              |
| \$ 1.00       | = | PhP 57.719            |

## ABBREVIATIONS

|                  |   |                                                 |
|------------------|---|-------------------------------------------------|
| ADB              | – | Asian Development Bank                          |
| AP               | – | affected person                                 |
| ARROW            | – | Accelerated and Reformed Right-of-Way           |
| BSP              | – | Bangko Sentral ng Pilipinas                     |
| CAP              | – | Corrective Action Plan                          |
| CFP              | – | Credit Facility Proposal                        |
| CH <sub>4</sub>  | – | methane                                         |
| CNC              | – | Certificate of Non-Coverage                     |
| CNO              | – | Certificate of Non-Overlap                      |
| CO <sub>2</sub>  | – | carbon dioxide                                  |
| CP               | – | Certification Precondition                      |
| CSR              | – | Corporate Social Responsibility                 |
| DENR             | – | Department of Environment and Natural Resources |
| DOE              | – | Department of Energy                            |
| DOLE             | – | Department of Labor and Employment              |
| E&S              | – | Environment and Social                          |
| ECC              | – | Environmental Compliance Certificate            |
| ECP              | – | Environmentally Critical Project                |
| EHS              | – | Environment, health and safety                  |
| EIA              | – | Environmental impact assessment                 |
| EIS              | – | Environmental Impact Statement                  |
| EMB              | – | Environmental Management Bureau                 |
| EMP              | – | Environmental Management Plan                   |
| EPMD             | – | Environmental Programs Management Department    |
| ESA              | – | Environmental and Social Assessment             |
| ESCR             | – | Environment and Social Compliance Report        |
| ESMP             | – | Environment and Social Management Plan          |
| ESMS             | – | Environmental and Social Management System      |
| ESRM             | – | Environmental and Social Risk Management        |
| FPIC             | – | Free, Prior and Informed Consent                |
| GEMD             | – | Geothermal Energy Management Division           |
| GRM              | – | Grievance redress mechanism                     |
| GSC              | – | Geothermal Service Contract                     |
| H <sub>2</sub> S | – | hydrogen sulfide                                |
| ICC              | – | Indigenous Cultural Community                   |
| IEE              | – | Initial Environmental Examination               |
| IP               | – | Indigenous peoples                              |
| IPP              | – | Indigenous Peoples Plan                         |
| IPRA             | – | Indigenous Peoples Rights Act                   |
| IR               | – | Involuntary Resettlement                        |

|                 |   |                                                     |
|-----------------|---|-----------------------------------------------------|
| IRR             | – | Implementing Rules and Regulations                  |
| km              |   | kilometer                                           |
| LBP             | – | Land Bank of the Philippines                        |
| LGU             | – | Local Government Unit                               |
| MOA             | – | Memorandum of Agreement                             |
| MGB             | – | Mines and Geosciences Bureau                        |
| MW              | – | megawatt                                            |
| NCG             | – | non-condensable gas                                 |
| NCIP            | – | National Commission on Indigenous Peoples           |
| NH <sub>3</sub> | – | ammonia                                             |
| NIPAS           | – | National Integrated Protected Areas System          |
| NOL             | – | No Objection Letter                                 |
| NTP             | – | Notice to Proceed                                   |
| NWRB            | – | National Water Resources Board                      |
| OSH             | – | Occupational Health and Safety                      |
| PAMB            | – | Protected Area Management Board                     |
| PCR             | – | Project Completion Report                           |
| PEISS           | – | Philippine Environmental Impact Statement System    |
| PFMT            | – | Program and Fund Management Team                    |
| PGRDF           | – | Philippines: Geothermal Resource Derisking Facility |
| PIAL            | – | Prohibited Investment Activities List               |
| PM              | – | particulate matter                                  |
| REMB            | – | Renewable Energy Management Bureau                  |
| ROW             | – | Right-of-Way                                        |
| RP              | – | Resettlement plan                                   |
| SAPA            | – | Special Agreement in Protected Area                 |
| SFLMA           | – | Special Forest Land Management Agreement            |
| SME             | – | Small and medium enterprise                         |
| SMV             | – | Schedule of market values                           |
| SPS             | – | Safeguard Policy Statement (2009)                   |
| SR              | – | Safeguards Requirement                              |
| TOR             | – | Terms of Reference                                  |
| TSP             | – | total suspended particles                           |

## NOTE

- (i) In this report, "\$" refers to United States dollars unless otherwise stated.

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## **I. INTRODUCTION**

1. The Philippines: Geothermal Resource Derisking Facility (PGRDF) is a government initiative launched by the Department of Energy (DOE) to support new geothermal development and mitigate investment risk at pre-development stage through cost-sharing resource exploration cost and risk with private developers. The PGRDF recognizes the huge potential of geothermal resources in the Philippines as a renewable energy source. PGRDF supports exploratory drilling so developers can verify geothermal resources, encouraging later investments in power generation. By helping developers complete exploration and gather essential data, PGRDF enables informed investment decisions and accelerates steam field and power plant construction for viable projects.

2. The Land Bank of the Philippines (LBP) serves as the financial intermediary of the funds sourced from the Asian Development Bank (ADB), pursuant to the Memorandum of Agreement (MOA) signed between LBP and DOE on 16 December 2025.

3. This Environmental and Social Management System (ESMS) Arrangement document sets how the LBP and the DOE will integrate environmental and social (E&S) considerations into their respective operations to ensure effective delivery of the PGRDF funds. The ESMS complements the Operational Manual of the PGRDF.<sup>1</sup>

### **A. OBJECTIVES OF ESMS**

4. The ESMS serves as LBP's primary reference for ensuring lending activities align with ADB's Safeguard Policy Statement (SPS 2009) and national regulatory requirements on environmental, occupational health and safety, and social safeguards. Its core objectives are to:

- a) Manage and prevent adverse E&S impacts or risks of supported subprojects, ensuring compliance with the ADB SPS 2009 and laws and regulations of the Government of the Philippines;
- b) Establish policies highlighting the DOE/LBP commitment to manage E&S issues throughout the project life cycle;
- c) Define appropriate mitigation and management procedures to minimize or mitigate impacts/risks related to proposed subprojects;
- d) Establish tools and guidelines for screening, categorizing, and assessing E&S impacts and risks of proposed subprojects;
- e) Guide LBP, DOE and sub-borrowers in project preparation, evaluation, approval, monitoring, reporting and in undertaking corrective actions, if any;
- f) Ensure that effective mechanisms are in place for safeguard compliance during project implementation, and to undertake corrective actions, if required;
- g) Establish a grievance redress and information disclosure mechanism for communicating E&S concerns to stakeholders, especially to impacted communities;
- h) Maintain effective mechanisms to ensure subproject compliance and to address issues during implementation; and
- i) Identify institutional arrangements for ESMS implementation, and develop institutional capacity of LBP, DOE, and borrowers to ensure safeguard compliance of the facility.

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<sup>1</sup> Operational Manual for Philippine Geothermal Resource Derisking Facility

## B. PGRDF ELIGIBLE ACTIVITIES AND SUBPROJECTS

5. The PGRDF is limited for developers with Geothermal Service Contract (GSC) from DOE. Eligible subprojects must be a greenfield exploration stage, with the required E&S documentation prepared in accordance with the subproject categorization as determined by PGRDF (DOE, LBP) approved by ADB, as specified in Appendix 2.

6. The PGRDF will finance the following eligible investments:

| No. | Description                                                                                                                                                                                                        |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Site Preparation and Associate Infrastructure: <ul style="list-style-type: none"><li>• Access Road</li><li>• Geohazards, Slope Protection</li><li>• Well pad construction</li><li>• Waterline facilities</li></ul> |
| 2   | Rig Mobilization and Well pad                                                                                                                                                                                      |
| 3   | Exploration Drilling (up to 3 wells)                                                                                                                                                                               |
| 4   | Well testing and discharge                                                                                                                                                                                         |

Source: Feasibility Study Report. ADB and DOE

7. Activities listed under ADB's prohibited investment activities as outlined in Appendix 1 are not eligible for financing under PGRDF.

## C. ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS OF GEOTHERMAL EXPLORATION

8. **Scope of Activities.** Subprojects include construction of well pads, exploration and appraisal drilling and well testing, construction of access roads, and well pad abandonment at end of exploration stage. Some subprojects may have 2 to 3 wells with depth of drilling ranging from 1,500 to 3,000 meters. To facilitate well pad construction and movement of materials to the site, new access roads may be necessary. Civil works for exploration drilling may span up to one year while the exploration well drilling and testing can take about 6 months and another 3 months for the resource assessment. Once a discovery of resource is made, the process will proceed to appraisal drilling wherein further assessment of size, characteristics and potential of the reservoir are conducted. The appraisal drilling may be conducted within another 1.5 years, until the resource assessment.

9. **Environmental Context.** Geothermal prospects are frequently located in remote, often forested highland areas with volcanic characteristics, while some occur in community or agricultural areas. Drilling platforms need to be cleared and levelled to build the drilling rigs. Site preparation requires significant land clearing, topsoil stripping, and grading, which can lead to localized ecological disturbance.

10. Geothermal exploration activities have associated E&S impacts and risks, and managing these impacts and risks is critical for the successful implementation of geothermal projects. The typology of works would entail direct physical impacts and disturbance to the environment and surrounding community that includes: (i) deforestation and habitat loss, (ii) impacts on land use or land use changes (iii) soil runoff, (iv) gas emissions, (v) water contamination, (vi) generation of wastes, (vii) dust, and (viii) noise. Other related impacts may result from contractor's camp, materials storage area, sanitary facilities, and movement of trucks and equipment. These could pose occupational and community health and safety risks. Most of these works will generate temporary and localized construction impacts and could be prevented or minimized to acceptable

levels through proper planning and by applying good international construction practices. Site-specific impacts during the pre- and construction stages, will be analyzed further during the pre-qualification stage. Outlined in Table 1 is the summary of the environmental impacts associated with geothermal exploration activities supported under the PGRDF.

**Table 1: Summary of Environmental Impacts of Geothermal Exploration Activities**

| <b>Environmental Impacts</b>   | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Deforestation and habitat loss | <ul style="list-style-type: none"> <li>clearing of vegetation and trees, leading to deforestation and habitat fragmentation</li> <li>loss of soil fertility</li> <li>disturbance to any local wildlife such as nesting birds, mammals, and reptiles.</li> </ul>                                                                                                                                                                                      |
| Soil runoff                    | <ul style="list-style-type: none"> <li>Cut-and-fill operations on steep ground alter slopes that introduce erosion gullies around pad edges</li> <li>Excessive soil runoff may lead to sedimentation of creeks and rivers</li> <li>If pads are near streams or wetlands, there is risk of sediment runoff into aquatic habitats</li> </ul>                                                                                                           |
| Gas emissions                  | <ul style="list-style-type: none"> <li>Primary non-condensable gases (NCGs) encountered in geothermal development are carbon dioxide (CO<sub>2</sub>), hydrogen sulfide (H<sub>2</sub>S), methane (CH<sub>4</sub>) and ammonia (NH<sub>3</sub>) which can be released during well development and well testing.</li> </ul>                                                                                                                           |
| Water contamination            | <ul style="list-style-type: none"> <li>Well drilling, stimulation and testing require surface and underground water that may pick up dissolved minerals and can pollute surface waters and groundwater.</li> <li>Water used to clean facilities and leaks from damaged well casings can contaminate groundwater</li> </ul>                                                                                                                           |
| Discharge of wastes            | <ul style="list-style-type: none"> <li>Drilling produces mud and cuttings (drill fragments mixed with water or drilling fluid), which contain some hazardous components such as sulfides, arsenic, mercury, nickel and other heavy metals and uncontrolled release or discharge could contaminate soil and waterways and affect agricultural land.</li> <li>Generation of solid wastes and hazardous wastes due to well pad construction.</li> </ul> |
| Dust and noise                 | <ul style="list-style-type: none"> <li>Noise during the well drilling and testing activities and construction of access road.</li> <li>Noise and dust from blasting</li> <li>Movement of trucks and other heavy equipment to the site can also increase noise and dust in the area.</li> </ul>                                                                                                                                                       |
| Occupational health and safety | <ul style="list-style-type: none"> <li>Workers are exposed to occupational risks from well blowouts, pipeline failure, and seismicity issues.</li> <li>H<sub>2</sub>S inhalation, particularly in enclosed areas.</li> </ul>                                                                                                                                                                                                                         |
| Community health and safety    | <ul style="list-style-type: none"> <li>Hazards from movement of construction vehicles to and from the site.</li> <li>Exposure to dust and noise.</li> <li>Peace and order issues due to presence of migrant workers.</li> </ul>                                                                                                                                                                                                                      |

11. **Social Context.** The significant adverse impacts of geothermal exploration project activities on involuntary resettlement and indigenous peoples primarily arise from core project components such as the construction of access roads and well pads. Both activities necessitate land acquisition, which can lead to the physical relocation of affected communities and the economic displacement of households who depend on these lands for their livelihoods. In

particular, the construction process may encroach upon areas used by indigenous peoples for cultural practices, subsistence activities, or as part of their ancestral domains. As access to these lands may be restricted or permanently altered, both indigenous and non-indigenous communities could face diminished opportunities to sustain their customary ways of life and participate in cultural traditions. These constraints are detailed in the preceding table, highlighting the far-reaching social implications that accompany Major geothermal development activities.

12. The anticipated impacts on involuntary resettlement and indigenous people of the key geothermal exploration activities are summarized in the table 2 below.

**Table 2: Summary of Social Impacts of Geothermal Exploration Activities**

| Activities                   | Anticipated Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction of access roads | <ul style="list-style-type: none"> <li>• Potential physical relocation of households and disruption of established settlements</li> <li>• Economic displacement due to loss of livelihood, agricultural and ecotourist activities</li> <li>• Encroachment on ancestral domains and areas of cultural significance for indigenous peoples</li> <li>• Reduced access to sites essential for cultural practices, rituals, or subsistence activities and communal/ancestral lands</li> <li>• Potential conflicts arising from land tenure disputes and insufficient consultation processes</li> <li>• Potential change in land use, impacts on structures, crops, trees and entities</li> </ul>                                                                                       |
| Well pad construction        | <ul style="list-style-type: none"> <li>• Substantial land acquisition leading to loss of homes and farms; forest or community spaces</li> <li>• Potential physical/asset displacement of local residents</li> <li>• Economic displacement of individuals reliant on agriculture, ecotourism, grazing, or local livelihoods</li> <li>• Overlap with ancestral domains or culturally significant areas for indigenous peoples</li> <li>• Restricted access to communal lands/ancestral lands, sacred sites, natural resources, and important landscapes</li> <li>• Disruption of traditional practices and erosion of cultural identity</li> <li>• Increased vulnerability among marginalized groups</li> <li>• Potential undermining of customary governance structures</li> </ul> |

#### **D. PGRDF IMPLEMENTATION ARRANGEMENTS**

13. The PGRDF will be managed jointly by the LBP and DOE. Loan proceeds from ADB will be under an account within LBP (referred to as “PGRDF Account”). The PGRDF financing will come from funds provided by ADB through loan agreements with DOF and granted to LBP.

14. The PGRDF Governance Structure and Management Team comprises: (i) PGRDF Oversight Board; (ii) PGRDF Management Committee; and (iii) PGRDF Management Team (Figure 1).



**Figure 1: Organizational structure of the PGRDF**

Source: Feasibility Study Report. Philippine Geothermal Resource Derisking Facility. 14 November 2025.

15. The PGRDF Oversight Board shall provide strategic oversight for the facility.
16. The PGRDF Management Committee (ManCom) shall be the key coordinating body for operational management of the facility, and the liaison point for both internal operations and external reporting requirements. The ManCom will be composed of 5 members including a Chairperson, the Secretariat and the heads of the Technical Team from DOE and the Loan Management Team and Program and Fund Management Team from LBP.
17. The PGRDF Management Team shall be responsible for the day-to-day implementation of the PGRDF activities. The PRGDF Management Team comprises three teams: (i) DOE Technical Team, (ii) LBP Program and Fund Management Team, and (iii) LBP Loan Management Team.
18. Peer Reviewers will provide third party evaluations of the exploration drilling plan to (i) provide independent assessment and opinion to increase likelihood of success in exploration, and (ii) help enhance technical due diligence capacity of ManCom
19. DOE is responsible for identifying and nurturing prospective geothermal projects that align with national energy goals and possess the potential for successful implementation. The DOE actively engages in prospecting viable geothermal sites and fostering partnerships with stakeholders, including private developers and local communities, to cultivate a diverse portfolio of projects. By guiding early-stage projects and providing support for feasibility studies and initial assessments, the DOE contributes to building a sustainable and dynamic pipeline that addresses

energy needs while promoting innovation and technological advancements in the geothermal sector. This comprehensive approach ensures that a continuous stream of well-prepared projects is available, ready to advance into financing and development phases, thereby supporting the strategic expansion of geothermal energy in the country's energy mix.

20. LBP is the Facility Administrator and Manager that will be responsible for day-to-day implementation under the guidance of DOE, as Executing Agency. DOE's Geothermal Energy Management Division (GEMD) under the Renewable Energy Management Bureau (REMB) will support LBP in geothermal technical due diligence and monitoring at pre-qualification, full proposal evaluation, and in checking exploratory drilling completion, as part of PGRDF management committee. LBP's Program and Fund Management Team (PFMT) is responsible for the overall coordination between LBP and DOE, facilitating the implementation at each step, and ensuring compliance with PGRDF requirements through the program. Specifically, the LBP-PFMT will ensure E&S compliance, evaluation and monitoring of program activities as outlined in this ESMS.

21. LBP's Environmental Programs Management Department (EPMD) plays a crucial role in integrating environmental and social safeguards into the bank's lending operations. The EPMD is headed by a Vice President and is composed of five teams, each composed of a Program Officer and a Program Assistant. EPMD will: (i) verify if subproject applications under PGRDF adhere to environmental and social laws and regulations, (ii) screen and evaluate subproject borrower to submit all relevant safeguard instruments, permits and clearances, and (iii) oversee the conduct of environmental and social due diligence to evaluation environmental and social risks and impacts of projects. LBP-EPMD will recommend set of E&S conditions in the loan based on assessment of risks and impacts. During subproject implementation, LBP-PFMT through the EPMD shall conduct monitoring of compliance subproject borrowers with national government requirements as well as E&S conditions of the loan. The EPMD shall submit an annual report on the implementation status of the ESMS.

## **II. ENVIRONMENTAL AND SOCIAL POLICY AND APPLICABLE REQUIREMENTS**

### **A. APPLICABLE PHILIPPINE LAWS AND REGULATIONS**

22. The implementation of activities proposed under the PGRDF must be consistent with laws and regulations of the Government of the Philippines that are relevant in the context of project activities.

#### **1. Environment-Related Laws, Regulations and Standards**

23. The PGRDF will comply with the Philippine Government's environmental laws, standards, rules, and requirements, which impose restrictions on activities to avoid, minimize, or mitigate likely impact on the environment and people. It is the responsibility of the subproject developer/sub-borrower, with oversight from the DOE and LBP, to ensure that all activities of subprojects under the program are compliant with the national legal framework. The following outlines the relevant environmental laws and regulations in the Philippines.

24. **Presidential Decree 1586: Philippine Environmental Impact Statement System.** The Philippine Environmental Impact Statement System (PEISS) was established by Presidential Decree No. 1586 (1978). The law requires all agencies and instrumentalities of the national government, government-owned or controlled corporations, as well as private corporations, firms and entities to conduct an EIA for every proposed project and undertaking which significantly affects the quality of the environment. The PEISS requires identifying direct and indirect impacts of a project on the biophysical and human environment and the development of appropriate environmental protection and enhancement measures to address adverse impacts and risks. The rules and regulations to implement the PEISS are outlined in DENR Administrative Order No. 2003-30.

25. Projects covered by the PEISS need to secure an Environmental Compliance Certificate (ECC) while those that are not covered qualify for a Certificate of Non-Coverage (CNC). DENR Administrative Order 2003-30 and DENR's Environmental Management Bureau (EMB) Memorandum Circular 2014-05 outline the project thresholds for coverage screening and categorization under the PEISS. For Environmentally Critical Projects (ECP) or those under Category A, the DENR requires the completion of an Environmental Impact Statement (EIS) and the ECC application is processed at the DENR Central Office. There are four main categories of ECPs: (i) heavy industries; (ii) resource extractive industries; (iii) infrastructure projects; and (iv) golf course projects. The technical description for the sub-category under each of the ECP categories is presented in the EMB Memorandum Circular 2014-05.

26. For those in Category B or non-ECP, either an EIS or IEE checklist is required depending on the thresholds. For those in Category B (non-ECP), the EIS will be reviewed at the DENR-EMB regional office while those requiring an IEE checklist is processed through the EMB online system after submission of the required documents which includes an environmental management plan. Category D projects are those which are exempted from the PEISS and which only need to submit a Project Description at the EMB online system to secure the CNC.

27. EMB administers the implementation of the PEISS and its implementing rules and regulations. Under the Revised Guidelines for Coverage Screening and Standardized Requirements of the PEISS, geothermal exploration and related activities may fall under any of

the following categories. Table 3 outlines the categorization of geothermal activities and corresponding documentary requirements under the PEISS.

**Table 3: Category of Geothermal-Related Activities and Requirements under the PEISS**

| Activity                                                                                                                                                                                                                                                                    | Category A: ECP                                                                                  | Category B: Non-ECP                                                                                                         |                                                                                                                                                                     | Category D                                                                           | Parameter/Remarks                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Requirement                                                                                                                                                                                                                                                                 | EIS                                                                                              | EIS                                                                                                                         | IEE Checklist                                                                                                                                                       | Project Description                                                                  |                                                                                                                    |
| Geothermal facilities                                                                                                                                                                                                                                                       | ≥50 MW                                                                                           | ≥10 MW but < 50 MW                                                                                                          | ≥1 MW but < 10 MW                                                                                                                                                   | ≤1 MW                                                                                | Total power generating capacity                                                                                    |
| Energy projects and non-commercial mineral and fossil mining projects involving seismic survey, gravity survey, geo-scientific, geophysical surveys, reconnaissance, exploration, feasibility studies, piloting, core drilling/sampling research and development activities | None                                                                                             | None                                                                                                                        | None                                                                                                                                                                | Regardless of area                                                                   | Must not involve significant earth moving activities or may not pose significant ecological/vegetative disturbance |
| Roads, new construction                                                                                                                                                                                                                                                     | National road: ≥20.0 km (length with no critical slope) or ≥10.0 km (length with critical slope) | Provincial road and other types of roads: ≥20.0 km (length with no critical slope) or ≥10.0 km (length with critical slope) | All types of roads: > 2km but <20.0 km (length with no critical slope) or > 2 km but <10.0 km (length with critical slope)                                          | ≤2 km                                                                                |                                                                                                                    |
| Roads, widening, rehabilitation and/or improvement                                                                                                                                                                                                                          | None                                                                                             | >50% increase in capacity (or in terms of length/width) and ≥20.0 km, (length with no critical slope) or ≥10.0 km           | >50% increase in capacity (or in terms of length/width) and >2 km but <20.0 km, (length with no critical slope) or > 2 km but <10.0 km (length with critical slope) | ≤50% increase in capacity (or in terms of length/width) but ≤2 km increase in length |                                                                                                                    |

| Activity    | Category A: ECP | Category B: Non-ECP          |               | Category D          | Parameter/Remarks |
|-------------|-----------------|------------------------------|---------------|---------------------|-------------------|
| Requirement | EIS             | EIS                          | IEE Checklist | Project Description |                   |
|             |                 | (length with critical slope) |               |                     |                   |

ECP = Environmentally Critical Projects, EIS = Environmental Impact Statement, IEE = Initial Environmental Examination, MW = megawatt, PEISS = Philippine Environmental Impact Statement System  
Source: EMB Memorandum Circular 2014-05.

28. **National Integrated Protected Areas System (NIPAS) Act of 1992 (Republic Act No. 7586) and Expanded - NIPAS Act of 2018 (RA 11038).** This law provides the legal framework for the establishment and management of national protected area system. The system encompasses “outstandingly remarkable areas and biologically important public lands that are habitats of rare and/or endangered species of plants and animals, biographic zones and related ecosystems, whether terrestrial, wetland, or marine.” The Act is a framework law for the more specific legislations declaring and delineating particular protected areas. It specifies five (5) categories of protected areas: (i) strict nature reserves, (ii) natural parks, (iii) natural monuments, (iv) wildlife sanctuary, (v) protected landscapes and seas. The NIPAS Act allows for the identification of buffer zones and/or multiple use zones where settlements, agriculture and other activities may be allowed. These zones will be managed as part of protected area resource management plans for the purpose of protecting the strictly protected zones from encroachments.

29. **Special Agreement in Protected Area (SAPA)** is required under Section 3.2 of DENR Administrative Order 2007-17 or the rules and regulations governing special uses within protected areas. The SAPA is a binding instrument between the DENR through the Protected Area Management Board (PAMB) as first party, and the second party that includes indigenous peoples, tenured migrants, LGUs, other government agencies, stakeholders such as business entities, cooperatives, corporations and non-government organizations. A SAPA may be issued by the DENR within the protected area but not in Strict Nature Reserves and shall be confined only to management zones of the protected area appropriate for the purpose. The following are the special uses, that may be allowed, within protected areas, subject to the issuance of an ECC and PAMB Clearance:

- Ecotourism facilities
- Camp sites
- Communication facilities
- Transmission lines
- Irrigation canals/waterways
- Rights-of-way (such as transmission lines, communication facilities)
- Aquaculture
- Scientific monitoring stations
- Agroforestry, forest plantation.

30. **Sustainable Forest Land Management Agreement (SFLMA)** is required under Section 6 of DENR Administrative Order 2025-22 or the Rules and Regulations Governing SFLMA. It is a forest tenure instrument issued by the ENR (DENR) and defined as a production-sharing agreement between the DENR and a qualified person or entity, granting the right to possess, use, develop, and manage forest lands for a specified period under sustainability principles. This Integrates seven (7) existing forestry agreements into one system. This tenorial instrument is applied to forest lands

outside protected areas (non-NIPAS areas) and allows diverse land uses within one agreement, such as:

- Agroforestry
- Forest plantation
- Ecotourism
- Conservation/protection
- Special uses (e.g., infrastructure, energy projects)

31. **Wildlife Resources Conservation and Protection Act of 2021 (Republic Act No. 9147).** Section 23 of Republic Act No. 9147 restricts the collection of threatened wildlife, by-products and derivatives, except for scientific or breeding or propagation purposes (Section 6). Accredited individuals, business research, educational or scientific entities are allowed to collect for conservation, breeding or propagation purposes. It is unlawful to exploit wildlife resources and their habitats, or undertake the following acts: (i) killing and destroying wildlife species; (ii) inflicting injury which cripples and/or impairs the reproductive system of wildlife species; (iii) effecting any of the following acts in critical habitats: dumping of waste products detrimental to wildlife, squatting or otherwise occupying any portion of the critical habitat, mineral exploration and/or extraction, burning, logging, and quarrying; (iv) introduction/re-introduction or restocking of wildlife resources; (v) trading of wildlife; (vi) collecting, hunting or possessing wildlife, their by-products and derivatives; (vii) gathering or destroying of active nest tree, host plants and the like; (viii) maltreating and/or inflicting other injuries; and (ix) transporting of wildlife. The National List of Threatened Philippine Plants and Their Categories and the List of Other Wildlife Species is outlined in Section 6 of DENR Administrative Order 2007-01, pursuant to Section 22 of Republic Act No. 9147.

32. **The Forestry Reform Code of the Philippines of 1975 (Presidential Decree No. 705 of 1975).** Presidential Decree No. 705 provides that no land of the public domain with eighteen percent (18%) slope or over shall be classified as alienable and disposable, nor any forest land fifty percent (50%) in slope or over, as grazing land. Lands eighteen per cent (18%) in slope or over which have already been declared as alienable and disposable shall be reverted to the classification of forest lands to form part of the forest reserves, unless they are already covered by existing titles, or approved public land application, or actually occupied prior to the effectivity of the Code on March 19, 1975. Activities in forest areas (drilling, access roads, clearing, etc.) must be approved by DENR's Forest Management Bureau (through Free Patent, Lease agreements or SFLMA, or reclassification processes) and may require a Certificate of Non-Forest Land (issued by the Land Management Bureau) if the project site was previously classified as timberland. Geothermal projects must thus comply with DENR tree-cutting permits and reforestation requirements if forest clearing is involved.

33. **National Greening Program (Republic Act 10176).** This is DENR's large-scale reforestation initiative. Geothermal developers may coordinate with DENR on offsetting tree loss through participation in reforestation projects under the National Greening Program. No major changes to forestry law have been enacted since 2020, but DENR continues to enforce permits for any forest disturbance. Geothermal companies typically partner with DENR on reforestation as part of their ECC conditions.

34. **National Caves and Cave Resources Management and Protection Act of 2011 (Republic Act No. 9072) and DENR Administrative Order 2003-29 (Implementing Rules and Regulations [IRR] of Republic Act No. 9072).** Section 18 of the IRR of Republic Act No. 9072 restricts the gathering, collecting, possessing, consuming, selling, bartering or exchanging or offering for sale without authority of any cave resource (including animal or plant life). Section 7

of Republic Act No. 9072 prohibits the destruction, disturbance, defacing, marring, alteration, removal, or harm to geological formations (speleogem or speleothem) of any cave or altering the free movement of any animal or plant life into or out of any cave.

35. **Philippine Clean Air Act of 1999 (Republic Act No. 8749).** This law provides for the establishment and adoption of the Integrated Air Quality Improvement Framework, which shall, among others, prescribe the emission reduction goals using permissible standards, control strategies and control measures to be undertaken within a specified time period, including cost effective use of economic incentives, management strategies, collective actions, and environmental education and information. The law introduces the concept of "air sheds" in which planning, coordination, and compliance are carried out. The law provides for the establishment of ambient air quality guidelines, values and standards, as well as emission standards. Geothermal plants and facilities must meet air emission standards (e.g. limits on sulfur dioxide, particulate matter) under DENR's regulations. Stack emissions or venting (e.g. from steam release) require Clean Air permits and compliance testing. The National Ambient Air Quality Guideline Values for Particulate Matter 2.5 (PM<sub>2.5</sub>) is outlined in DENR. Administrative Order 2013-13 wherein in an averaging time of 24 hours, the PM<sub>2.5</sub> should not exceed 50 mg/Ncm. The standards for other criteria pollutants at 24-hour averaging time are: total suspended particulates (TSP) – 230 mg/Ncm; PM<sub>10</sub> - 150 mg/Ncm, sulfur dioxide (SO<sub>2</sub>) – 180 mg/Ncm; and nitrogen dioxide (NO<sub>2</sub>) – 150 mg/Ncm.

36. **Philippine Clean Water Act of 2004 (Republic Act No. 9275).** Republic Act No. 9275 aims to protect the country's water bodies against pollution from land-based sources (industries and commercial establishments, agriculture and community/household activities). It provides a comprehensive and integrated strategy to prevent and minimize pollution through a multi-sectoral and participatory approach involving all stakeholders. The law provides for the enforcement of Water Quality Classification Criteria and Water Quality Standards, as well as Effluent Standards. Although geothermal typically reinjects fluids, any discharge to surface water (e.g. from cooling or domestic use) must meet water quality standards. A Discharge Permit is needed if effluent enters rivers or seas.

37. **Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (Republic Act No. 6969).** This law regulates, restricts and/or prohibits the importation, manufacture, processing, sale, distribution, use and disposal of chemical substances and mixtures that present unreasonable risk and/or injury to health or the environment, including the entry, even in transit, as well as the keeping or storage and disposal of hazardous and nuclear wastes into the country for whatever purpose.

38. **Ecological Solid Waste Management Act of 2000 (Republic Act No. 9003).** This legislation sets out policy direction for an effective solid waste management program in the country, addressing key activities in solid waste management from control of waste generation to storage, collection, transport, processing and final disposal. The law establishes the National Solid Waste Management Commission and Solid Waste Management Board in each LGU to formulate the National Solid Waste Management Framework which includes waste segregation at source, reuse, recycling and composting.

39. **National Cultural Heritage Act of 2009 (Republic Act No. 10066).** This law was enacted to protect and conserve the national cultural heritage and to strengthen the National Commission for Culture and the Arts and its affiliated cultural agencies. This law defines important cultural properties by default unless declared otherwise by agencies concerned, to include: (i) works of National Artists; (ii) archaeological and traditional ethnographic materials; (iii) works of national

heroes; (iv) Marked structures; (v) structures dating at least 50 years old; and (vi) Archival material/document dating at least 50 years old. The law provides that all intervention works and measures on conservation of national cultural treasures, important cultural property, as well as national historical landmarks, sites or monuments and structures shall be undertaken through the appropriate cultural agency through methods and materials that strictly adhere to the accepted international standards of conservation. When the physical integrity of the national cultural treasures or important cultural properties are found to be in danger of destruction or significant alteration, the appropriate cultural agency shall immediately issue a Cease-and-Desist Order suspending all activities that will affect the cultural property.

40. **Regulations on Health and Safety.** Geothermal exploration can involve hazardous operations (high pressures, hot steam, gases, drilling). The 2018 Occupational Safety and Health Act (RA 11058) broadened safety coverage and penalties, and its implementing rules, Department of Labor and Employment (DOLE) Dept. Order 252-17, took effect in 2019. Geothermal employers are now explicitly covered. DOE's 2021 code (DC2021060016) is the latest sector-specific rule (no subsequent amendments yet). In addition, past Ministry of Energy and Mines Safety Code (PD 442, 1974) has been integrated into the DOE regulations for geothermal. Overall, developer compliance with OSH is monitored by both DOE and DOLE. Health and safety are mandated under general labor laws and specific energy codes:

41. **Occupational Safety and Health (OSH) Standards:** Republic Act No. 11058 (2018) strengthens workplace safety across all industries. It requires employers to provide safe working conditions and to conduct safety training. For geothermal, this means implementation of strict safety programs (hazard audits, safety officers, emergency drills) as part of every project's OSH system.

42. **Department of Energy Geothermal Safety Code:** DOE Department Circulars (e.g. DC2000-02-001 and DC2003-10-009) established the original Geothermal Safety and Health Rules and Regulations. Most recently, DOE Circular DC2021-06-0016 promulgated the "*Geothermal Safety, Health and Environment Code*". This code, based on DOE's authority, sets industry-specific standards for well control, engineering design, construction safety, and health surveillance in geothermal projects. It mandates, for example, hazard analyses, safety valves on wells, and health monitoring for hydrogen sulfide (H<sub>2</sub>S), exposure.

43. **Occupational Exposures:** Aside from drilling hazards, geothermal power plants emit gases (e.g. H<sub>2</sub>S) that pose health risks. These are regulated under the Clean Air Act (RA 8749, 1999) via emission standards, and workers' exposure must meet DOLE/National Institute for Occupational Safety and Health standards. Geothermal worksites must implement exposure controls (gas monitors, protective equipment, first aid) according to DENR-EMB and DOLE rules.

44. **Noise Standards:** The noise standards in the Philippines are outlined in Presidential Decree 984 (Pollution Control Law). Although the law was completely repealed when Republic Act 9275 was issued, the noise standards in Presidential Decree 984 is still currently being used as a reference. Noise in areas near schools and hospitals merit the strictest noise levels.

**Table 4: Noise Standards in General Areas**

| Area               | Maximum Allowable Noise Level, A-weighted decibels |                       |           |
|--------------------|----------------------------------------------------|-----------------------|-----------|
|                    | Daytime                                            | Morning/Early Evening | Nighttime |
| Schools, Hospitals | 50                                                 | 45                    | 40        |
| Residential        | 55                                                 | 50                    | 45        |

| Area             | Maximum Allowable Noise Level, A-weighted decibels |                       |           |
|------------------|----------------------------------------------------|-----------------------|-----------|
|                  | Daytime                                            | Morning/Early Evening | Nighttime |
| Commercial       | 65                                                 | 60                    | 55        |
| Light Industrial | 70                                                 | 65                    | 60        |
| Heavy Industrial | 75                                                 | 70                    | 65        |

Notes:

Category of Area is as follows:

AA - a section or contiguous area which require quietness such as area within 100 meters from school sites, nursery schools, hospitals, and special home for the aged.

A - a section or contiguous area primarily used for residential purposes.

B - a section or contiguous area primarily used as commercial area.

C - a section primarily reserved as a light industrial area.

D - a section primarily reserved as a heavy industrial area.

Division of 24-hour period is as follows:

Morning - 5:00 AM to 9:00 AM

Daytime - 9:00 AM to 6:00 PM

Evening - 6:00 PM to 10:00 PM

Nighttime- 10:00 PM to 5:00 AM.

Source: Official Gazette, 1978 Implementing Rules and Regulations of Presidential Decree No. 984.

## 2. National Legislation on Involuntary Resettlement and Land Acquisition

45. **Philippine regulations related to resettlement and land acquisition.** The Philippines has established a robust legal framework to address land acquisition and resettlement issues, ensuring the rights of affected persons are protected through various legislative acts. The 1987 Constitution provides the foundational legal basis, emphasizing that private property cannot be taken for public use without fair compensation and ensuring just and humane resettlement for affected individuals, prohibiting the eviction of the urban or rural poor under Republic Act No. 7279, and providing for entitlements for eligible project-affected persons who will be displaced, such as transportation cost, subsistence allowance, and income and skills training under Republic Act No. 12289.

46. **Republic Act No. 10752, enacted in 2016 and amended in 2025 by Republic Act No. 12289, known as the Accelerated and Reformed Right-of-Way (ARROW) Act<sup>2</sup>** streamlines and improves the process of acquiring land for national infrastructure and public service projects in the Philippines. ARROW reforms the process of acquiring right-of-way for infrastructure projects in the Philippines. It ensures that private property cannot be taken for public use without just compensation, and mandates prompt payment to property owners based on a consistent national valuation system. The law covers both national government and private sector projects that provide public services and allows local government units to adopt its provisions for their own infrastructure needs. The Act details the methods for acquiring property, including donation, negotiated sale, and expropriation, with clear rules for compensation and valuation. Under negotiated sale, the implementing agency or the private entity shall offer to the property owner concerned, as compensation price, the sum of: (i) the market value of the land based on the schedule of market value (SMV); (ii) the replacement cost of structures and improvements therein, taking depreciation into consideration; and (iii) the market value of crops and trees therein. If negotiations fail, expropriation proceedings are initiated, with the courts determining just compensation. Special provisions address subsurface infrastructure, ancestral domains, and the relocation of informal settlers, ensuring that affected parties are treated fairly and provided with resettlement options. The Act mandates the establishment of resettlement sites and the provision of adequate services for those displaced by infrastructure projects. It ensures that qualified

<sup>2</sup> The implementing rules and regulations of ARROW Act is still being drafted.

informal settlers are treated fairly, with procedures for relocation and demolition carried out in accordance with existing housing laws. The Act requires advance government funding for right-of-way acquisition, regulates development within declared right-of-way areas, and imposes sanctions for violations. It also mandates transparency, information sharing among agencies, and adherence to international guidelines and procedures concerning right of way acquisition including resettlement action plan under the approved loan or grant agreement signed and executed by the government for foreign-assisted projects. The Act aims to streamline infrastructure development while protecting the rights of property owners and affected communities.

47. **The Urban Development and Housing Act of 1992 (Republic Act No. 7279)** mandates that socialized housing and resettlement projects should ideally be in areas with employment opportunities and access to basic services. It emphasizes the need for consultation with affected residents and prohibits evictions or demolitions except in legally justified cases linked to government infrastructure projects. Similarly, the Local Government Code (Republic Act No. 7160) requires consultations and approvals from local councils before executing land reclassification and resettlement projects.

48. **1987 Constitution of the Republic of the Philippines.** The constitution provides the legal basis for land acquisition and ensures just and humane resettlement for affected persons. Private property cannot be taken for public use without fair compensation. Urban or rural poor residents cannot be evicted or have their dwellings demolished except by law and in a just manner. Resettlement requires adequate consultation with those affected and their new communities. The pertinent constitutional provisions on involuntary resettlement are as follows:

- i. Article III, Bill of Rights, Section 1: "No person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied the equal protection of the laws."
- ii. Article III, Bill of Rights, Section 9: "Private property shall not be taken for public use without just compensation."
- iii. Article XII, Section 5: "The State shall protect the rights of indigenous cultural communities to their ancestral lands to ensure their economic, social, and cultural well-being. By an act of Congress, customary laws governing property rights or relations can be applied in determining the ownership and extent of ancestral domains."
- iv. Article XIII, Urban Land Reform and Housing, Section 10: "Urban or rural poor dwellers shall not be evicted, nor their dwelling demolished, except in accordance with law and in a just and humane manner. No resettlement of urban or rural dwellers shall be undertaken without adequate consultation with them and the communities where they are to be relocated."

49. **Commonwealth Act No. 141 (Public Land Act).** A twenty-meter strip of land is reserved by the government for public use, with compensation provided only for improvements. Presidential Decree 635 expanded the width of the reserved strip from twenty meters to sixty meters. If the government chooses to utilize the reserved ROW strip within the land acquired under Commonwealth Act No. 141, the owner must execute a quit claim. Compensation will be provided solely for improvements.

50. **Department of Public Works and Highways Right-of-Way Acquisition Manual, December 2017.** The manual provides detailed guidelines on (a) conducting a project feasibility study with EIA and preparation of a Preliminary ROW Action Plan with property appraisal, (b) including the project in the Medium-Term Infrastructure Program, (c) providing appropriations in

the General Appropriations Act, (d) releasing funds, (e) Detailed Engineering Design, including Parcellary Surveys; asset valuation and preparation of the Final RAP, (f) validating the ROW Action Plan, (g) acquiring the actual ROW through Donation, Negotiation, Expropriation, and other modes, (h) processing payments, (i) transferring title to the Republic, (j) clearing the ROW, and (k) managing the ROW.

### **3. National legislation related to indigenous peoples**

51. The Philippines upholds the rights of indigenous peoples through a robust legal framework, notably through the Indigenous Peoples Rights Act of 1997 (IPRA) and the Philippine Constitution of 1987. These laws mandate the protection of indigenous peoples ancestral domains, self-governance, social justice, human rights, and cultural integrity, emphasizing their participation in development processes and access to essential services. Comparatively, the ADB SPS adopts a similar stance, ensuring that development projects respect the dignity, human rights, livelihood, and cultural heritage of IPs. Both frameworks prioritize the inclusion and active involvement of Indigenous Peoples but differ in procedural specifics and implementation strategies. While the Philippine legal framework offers detailed provisions for local governance and services, the ADB SPS focuses more broadly on integrating indigenous peoples' needs within developmental and environmental projects across Asia and the Pacific, emphasizing safeguards to prevent adverse impacts.

52. **The Philippine Constitution of 1987.** The Constitution supports the rights of indigenous cultural communities (ICC) while promoting national unity and development. It mandates an integrated approach to health development, ensuring affordable essential goods, health, and social services for all, prioritizing the under-privileged, sick, elderly, disabled, women, and children. Article XIV, Section 2(4). The State shall promote non-formal, informal, and indigenous learning systems, along with self-learning, independent study, and out-of-school programs that address community needs.

53. **Republic Act No. 8371: Indigenous Peoples Rights Act of 1997 (IPRA).** The law was enacted to correct historical injustices against indigenous cultural communities (ICCs) and indigenous peoples (IPs) by upholding their rights and improving their welfare. It enforces constitutional mandates and international norms, stipulating four basic rights: (i) right to ancestral domains and lands traditionally occupied by IPs/ICCs; (ii) self-governance and empowerment; (iii) social justice and human rights; and (iv) cultural integrity. Section 2(f) mandates maximum ICC/Indigenous Peoples participation in education, health, and other services to better address their needs and desires. The IRR provide the details and conditions, requirements, and safeguards for plans, programs and projects affecting indigenous peoples.

54. The IPRA introduced the concept of “free, prior and informed consent” (FPIC) to protect indigenous rights by ensuring communities receive accessible information and make decisions according to their customs, without outside pressure. FPIC is required before any resource extraction on indigenous lands, supporting self-determination, community input, and reducing potential conflicts over natural resource projects.

55. **National Commission on Indigenous Peoples (NCIP) Administrative Order No. 3. series of 2012** Issued pursuant to Sections 44 (m), 46(a), 57, 58, 59, and 7 of Republic Act No. 8371, otherwise known as the Indigenous Peoples Rights Act of 1997, and other related provisions, this order replaced NCIP Administrative Order No. 01, Series of 2006 and established revised guidelines for FPIC and related processes. Key provisions include:

- Ensure ICCs/indigenous peoples genuinely exercise their right to Free and Prior Informed Consent (FPIC) when required.
- Protect ICCs/indigenous peoples' rights in projects affecting them or their ancestral domains to support their well-being.
- Enforce procedures and standards for field-based investigation and FPIC processes, including fees, compensation, agreements, corporate responsibility, and penalties for violations.
- Promote fair partnerships in environmental management, land use, and resource sharing among ICCs/indigenous peoples, investors, and involved organizations.
- Confirm that the exercise of priority rights over resources by ICCs/indigenous peoples aligns with FPIC principles.
- Ensure that community benefits from FPIC or priority rights are managed responsibly with future generations in mind.
- Guarantee protection for resettled or displaced ICCs/indigenous peoples.

## **B. ADB SAFEGUARD POLICY STATEMENT (2009)**

56. Safeguard requirements for all projects funded by ADB are defined in the ADB Safeguard Policy Statement, SPS (2009) which covers three safeguard policies: (i) environment, (ii) involuntary resettlement, and (iii) indigenous peoples. The ADB SPS (2009) aims to promote sustainability of project outcomes by protecting the environment and people from projects' potential adverse impacts by:

- a) Avoiding adverse impacts of projects on the environment and affected people, where possible;
- b) Minimizing, mitigating, and/or compensating for adverse project impacts on the environment and affected people when avoidance is not possible; and
- c) Helping borrowers/clients to strengthen their safeguard systems and develop capacity to manage environmental and social risks.

57. The SPS (2009) aims to ensure that projects undertaken as part of programs or projects funded through ADB loans and grants are: environmentally sound; are designed to operate in compliance with applicable regulatory requirements; and are not likely to cause significant environmental, health, or safety hazards. The SPS (2009) is underpinned by the ADB Operations Manual, Bank Policy (Operations Manual Section F1/BP). The policy also promotes adoption of international good practice as reflected in the International Finance Corporation/World Bank Group's Environmental, Health and Safety (EHS) Guidelines (2007).

58. Under the SPS (2009), the Project is categorized as FI. The environmental and social categorization (A, B, or C) applies at the subproject level.

59. Projects involving investment of ADB funds to or through financial intermediaries (in this case, LBP) require the following:

- Conduct of safeguard due diligence to assess potential environmental and social impacts and risks associated with the FI's existing and likely future portfolio.
- Confirmation of commitment and capacity of the FI in social and environmental management.
- An ESMS needs to be developed and maintained as part of the overall management of the FI loan to meet national laws and/or ADB's requirements for FI projects.

- At the minimum, the ESMS should contain the (a) E&S policies, (b) screening, categorization and review procedure, (c) organizational structure and staffing including skills and competencies in E&S aspects, (d) training requirements, and (e) monitoring and reporting. The ESMS will be documented and agreed upon by ADB and the FI. Where the FI's subprojects to be funded by ADB, either through credit-line, other loans, equity, guarantee, or other financing instruments, have potential for significant environmental or social impacts, the FI will be required to ensure that such subprojects meet ADB's safeguard policy requirements, including those specified in Safeguard Requirements 1-3. ADB may also set additional requirements for the FI's activities more generally depending on the FI's portfolio and the host country's safeguard systems. ADB will monitor the FI's performance on the basis of its ESMS.
- ADB will assess the adequacy of the FI's capacity to manage E&S impacts and risks. Where there are gaps in the FI's capacity, the ADB and FI will establish a time-bound plan to address identified gaps. ADB will work with clients to improve their overall capacity to address E&S risks more generally.

### 1. ADB's Environment Safeguard Requirements

60. ADB safeguards requirements on environment (SR1) 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. Other environment safeguard requirements pertain 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 requirements are established through the environmental assessment process and the compliance with the requirements is achieved through the implementation of environmental management plans agreed to by ADB and the borrower. Every project or subproject is initially categorized for potential environmental impacts and risks as follows:

- **Category A** – a project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented; impacts may affect an area larger than the sites or facilities subject to physical works. An EIA with an environmental management plan (EMP) is required.
- **Category B** – a project's potential environmental impacts are less adverse and fewer in number than those of category A projects; impacts are site-specific, few if any of them are irreversible, and impacts can be readily addressed through mitigation measures. An IEE with an EMP is required.
- **Category C** – if a proposed project is likely to have minimal or no adverse environmental impacts. No EIA or IEE is required, although environmental implications need to be reviewed.
- **Category FI** – is assigned to projects that involve investment of ADB funds to or through a financial intermediary.

61. The SPS (2009) **environmental assessment** requirements specify that:

- a) 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 cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned non-government organizations.

- b) the assessment process will be based on current information, including a project description, and appropriate environmental and social baseline data.
- c) impacts and risks will be analyzed in the context of the project's area of influence and for all relevant stages of the project cycle, including preconstruction, construction, operation, decommissioning, and post-closure activities such as restoration.

62. An **EIA report** for category A projects includes the following major elements:

- a) Executive summary
- b) Description of the project
- c) Description of the environment (with comprehensive baseline data)
- d) Anticipated environmental impacts and mitigation measures
- e) Analysis of alternatives
- f) Environmental management plan (EMP)
- g) Consultation and information disclosure
- h) Conclusion and recommendations.

63. Annex 2 provides further details on the contents of the EIA report for category A projects.

64. When a 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:

- a) Executive summary
- b) Description of facilities, including both past and current activities
- c) Summary of national, local, and any other application environmental laws, regulations, and standards
- d) Audit and site investigation procedure
- e) Findings and areas of concern
- f) Corrective action plan that provides the appropriate corrective actions for each area of concern, including costs and schedule.

## 2. **ADB's Social Safeguard Requirements**

65. **Involuntary Resettlement.** The objectives of the ADB SPS are to: (i) avoid involuntary resettlement whenever feasible, by exploring alternative project designs; (ii) enhance or at least restore the livelihoods of all displaced and vulnerable persons to levels equal to or better than their pre-project conditions; and (iii) improve the living standards of displaced poor and other vulnerable groups. The involuntary resettlement safeguard addresses both physical displacement (such as relocation, loss of residential land, or loss of shelter) and economic displacement (such as loss of land, assets, access to assets, income sources, or means of livelihood) resulting from either: (i) involuntary land acquisition or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas. This policy applies regardless of whether such losses and involuntary restrictions are full or partial, permanent or temporary.

66. Projects supported by ADB are considered significant if 200 or more individuals will experience major impacts, defined as: (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income-generating). ADB Safeguard Requirement (SR 2) encompasses both physical displacement (including relocation, loss of residential land, or loss

of shelter) and economic displacement (such as loss of land, assets, access to assets, income sources, or means of livelihoods). These displacements may occur due to (i) involuntary acquisition of land or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas. This policy applies regardless of whether such losses and involuntary restrictions are full or partial, permanent or temporary. Below are the principles of ADB SPS for involuntary resettlement:

- a) Begin screening the project early to identify involuntary resettlement impacts and risks across past, present, and future phases. Define the scope of resettlement planning through surveys or censuses of displaced persons, including a gender analysis related to these impacts.
- b) Conduct meaningful consultations with affected persons, host communities, and NGOs, informing all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring, paying special attention to vulnerable groups such as those below the poverty line, the landless, elderly, women, children, Indigenous Peoples, and those without formal land titles. Establish a grievance mechanism to address concerns and support social and cultural institutions of both displaced persons and hosts. For complex and sensitive cases, conduct social preparation before making compensation and resettlement decisions.
- c) Establish a grievance mechanism to address concerns and support social and cultural institutions of both displaced persons and hosts. For complex and sensitive cases, conduct social preparation before making compensation and resettlement decisions.
- d) Improve, or at least restore, the livelihoods of all displaced persons through (a) land-based resettlement strategies when affected livelihoods are land-based where possible or cash compensation at replacement value for land where the loss of land does not undermine livelihoods, (b) prompt replacement of access to assets of equal or higher value, (c) prompt compensation at full replacement cost for assets that cannot be restored, and (d) additional revenues and services through benefit sharing schemes, where possible.
- e) Provide physically and economically displaced persons with necessary assistance, including secure land tenure if relocated, better housing with access to employment and community integration, and support like land development, credit, training, or employment. Also, supply civic infrastructure and community services as needed.
- f) Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards, in rural areas provided them with legal and affordable access to land and resources, and in urban areas, provide them with appropriate income sources and legal and affordable access to adequate housing.
- g) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- h) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- i) Prepare a resettlement plan detailing entitlements, income and livelihood recovery strategies, institutional roles, monitoring, budget, and schedule.
- j) Disclose the draft resettlement plan, including consultation documentation, before project appraisal in accessible formats and languages. Later, disclose the final resettlement plan and updates to affected persons and stakeholders.
- k) Pay compensation and provide other entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.
- l) Monitor and assess resettlement outcomes, their impact on the standards of living of displaced persons, and whether the objectives of the RP have been achieved, taking into

account the baseline conditions and results of resettlement monitoring. Disclose monitoring reports.

67. **Indigenous Peoples.** The 2009 ADB SPS respects indigenous peoples' identity, dignity, human rights, and cultural uniqueness. It ensures that development interventions are aligned with the needs of affected communities and their culture. The policy acknowledges their vulnerability and mandates addressing project impacts by the implementing agency, ensuring equal participation and benefits for indigenous peoples. Below are the principles of ADB SPS for indigenous peoples:

- a) Conduct early screening to assess (a) the presence of indigenous peoples in the project area or their collective attachment to the land and/or resources; and (b) the potential impacts of the project on indigenous peoples.
- b) Conduct a culturally appropriate and gender-sensitive assessment of social impacts or use similar methods to evaluate potential project impacts, both positive and negative, on indigenous peoples;
- c) Conduct meaningful consultations with affected indigenous peoples communities and concerned indigenous peoples organizations to enable their participation (a) in designing, implementing, and monitoring measures to prevent adverse impacts or, when prevention is not possible, to minimize, mitigate, or compensate for such effects; and (b) in tailoring project benefits for affected Indigenous Peoples communities in a culturally appropriate manner;
- d) Confirm the agreement of affected Indigenous Peoples communities to the following project activities: (a) commercial development of cultural resources and knowledge of Indigenous Peoples; (b) physical displacement from traditional or customary lands; and (c) commercial development of natural resources within customary lands under use;
- e) Avoid, as much as possible, any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected indigenous peoples communities participate in the design, implementation, and monitoring and evaluation of management for such areas and natural resources and that their benefits are equitably shared;
- f) Prepare an Indigenous Peoples Plan (IPP) based on the assessment of social impacts, with help from qualified and experienced experts. The IPP should include:
  - A framework for ongoing consultation with affected Indigenous Peoples during project implementation.
  - Measures ensuring culturally appropriate benefits for indigenous peoples.
  - Actions to avoid, mitigate, or compensate for adverse project impacts.
  - Grievance procedures, monitoring and evaluation arrangements, budget, and time-bound actions.
  - Disclose a draft IPP, including the consultation documentation and results of the social impact assessment, in a timely manner and in a language understandable by the affected Indigenous Peoples communities and other stakeholders. The final IPP and its updates will also be disclosed to the affected Indigenous Peoples communities and other stakeholders.
  - Prepare an Action Plan for legal recognition of customary rights to lands and territories or ancestral domains when the project involves (i) activities contingent on establishing legally recognized rights to land and territories that the IPs have traditionally occupied, or (ii) involuntary acquisition of such lands.
  - Monitor implementation of the IPP using qualified and experienced experts, adopt a participatory monitoring approach, wherever possible, and assess whether the IPPs'

objectives have been achieved, taking into account the baseline conditions and results of the IPP monitoring.

- Disclose monitoring reports. Participation of women and that their needs are explicitly addressed in the decision-making process for development activities. Other policies of the ADB that have bearing on resettlement planning and implementation are the Public Communications Policy (2011) and Accountability Mechanism (2012).

68. ADB will screen projects to identify those involving involuntary resettlement and indigenous peoples. If involuntary resettlement impacts/impacts to indigenous peoples are identified, a resettlement plan/indigenous peoples plan proportional to the extent and degree of impacts will be prepared. The extent of IR impacts is based on the level of displacement and the vulnerability of those affected.

69. For FI projects, potential involuntary resettlement impacts or impacts on Indigenous Peoples, before project approval by ADB, the borrower or client will submit resettlement plan or indigenous peoples plan based on subproject categorization for clearance before subproject approval.

### **3. LBP Environment and Social Safeguards Policy**

70. LBP is a government-owned and controlled bank that functions both as a commercial and development bank, primarily focusing on countryside development and promoting financial inclusion. LBP was established in 1963 by Republic Act 3844 and is a major financial institution in the Philippines that provides financing for projects related to agriculture, small-medium enterprises (SMEs), communications, transportation, housing, education, healthcare, environmental projects and other government priority sectors. LBP continues to strike a balance in fulfilling its social mandate of promoting countryside development while remaining financially viable.

71. LBP's **Corporate Social Responsibility (CSR)** is a component of the environmental and social policy of this ESMS, which states:

*The LBP's Corporate Social Responsibility (CSR) embodies its commitment to the institution's social mandate with programs and activities that contribute to a better, safer, and more progressive society, redounding to an improved quality of life for people of the present and future generations...*

*Inherently integrated in LBP's mandate and company culture, our sustainability efforts as embedded in our mission to deliver innovative products and services that are consonant with ecological enhancement while effectively addressing our client's needs. Our various environmental programs are geared toward the protection of natural resources, energy conservation and proper waste management, among others.*

*The environmental sustainability strategy of LBP is founded on three goals: (i) to evaluate and manage our environmental footprint in our daily operations; (ii) to deliver products and services that are ecologically sound and compliant with applicable environmental laws; and (iii) to support climate change mitigation and adaptation undertakings.*

72. LBP manages E&S risks associated with its loans based on the Enhanced Environmental and Social Safeguards Policy relative to Credit Delivery, which ensures all projects financed by LBP comply with E&S laws. The enhanced policies on credit delivery were developed in accordance with Executive Order No. 058 (Sept. 29, 2022), which requires banks to align with

Bangko Sentral ng Pilipinas (BSP) Circulars 1085 (Sustainable Finance Framework, 2020) and 1128 (Environmental and Social Risk Management (ESRM, 2021). LBP incorporates environmental, social, and governance principles into its products, services, and decision-making processes to benefit clients and society while reducing environmental impact, positioning LBP as a leader in ESRMS implementation for banks. The framework is executed by its Environmental Programs Management Department (EPMD), which oversees the social and environmental impacts of the Bank's financed projects. EPMD has confirmed that they have an environmental and social monitoring system in place.

73. LBP's Environmental and Social Assessment (ESA) System has been operational since 2004 and was significantly strengthened in 2022. These assessments are managed by the EPMD under the Agriculture and Sustainable Development Group (ASDG), which ensures that clients understand and comply with environmental and social safeguards. The sustained implementation of ESA has fostered greater awareness among borrowers and encouraged best practices in project management, underscoring LBP's commitment to sustainable development and responsible banking. For PGRDF implementation, LBP will ensure that dedicated E&S Staff from EPMD are assigned to the facilities, with competencies covering environment, involuntary resettlement, and Indigenous Peoples Safeguards, and access to external specialists as required.

74. Building on the robust foundation established by LBP's ESRM, this ESMS provides tailored guidance for managing loans specifically related to the geothermal exploration subproject under the PGRDF. By leveraging the principles, monitoring processes, and governance mechanisms set out in LBP's ESRM, the ESMS addresses the unique environmental and social safeguards challenges associated with geothermal energy exploration and development. This ensures that all aspects of the subproject, from risk identification to mitigation and reporting, are managed in accordance with both national regulations and international best practices/ADB SPS 2009, thus reinforcing LBP's commitment to sustainable finance and responsible project delivery.

75. E&S Policy Statement: In pursuit of the abovementioned LBP policies, LBP commits to:

- a) Implement an ESMS for the PGDRF that integrates environment and social considerations into all aspects of its financing and business operations;
- b) Identify and evaluate E&S risks and impacts of projects and adopt a mitigation hierarchy that avoids, minimizes, compensates and offsets risks and impacts to the environment, affected communities and workers;
- c) Encourage borrowers to pursue environmentally sustainable practices and compliance with all relevant laws on the protection and conservation of the environment, prevention of pollution, occupational health and safety, land acquisition, involuntary resettlement, gender inequality, and protection of indigenous peoples' rights;
- d) Adopt and require its clients to adhere to external principles and international best practice standards on environment and social safeguards;
- e) Develop sustainable project planning and design through participatory approach that includes consultation and engagement with local communities and stakeholders;
- f) Provide means for adequate engagement of borrowers with stakeholders throughout the project cycle and to ensure that relevant environmental and social information is disclosed and disseminated; and
- g) Ensure that all employees of the LBP are made aware of and actively involved in the implementation of the ESMS through constant training and capacity building programs.

76. In accordance with the ADB SPS (2009), E&S risks have to be managed by projects financed by ADB. Where investments are through financial intermediation, it is necessary to

conduct an assessment of the E&S risks of the proposed business activities, EA capacity for E&S management of the financial intermediary and identify national E&S laws and policies and mandates of responsible agencies.

77. LBP will ensure that:

- a) All subprojects using ADB funds are screened against the Prohibited Investment Activities List (PIAL) of the ADB SPS (2009) (Appendix 1);
- b) All subprojects using ADB funds with potential significant environmental and/or social impacts are reviewed and evaluated against Safeguard Requirements 1-3 of the ADB SPS (2009);
- c) All proposed subprojects are reviewed and evaluated against the national and state laws, regulations and standards on environment, health, safety, involuntary resettlement and land acquisition, and Indigenous Peoples;
- d) All subprojects will address gender and development issues and will specifically include (i) gender analysis as part of the environmental and social impact assessment, (ii) conduct meaningful consultations that include women and are tailored to the needs of disadvantaged and vulnerable groups; and
- e) All subprojects will ensure compliance with ADB's social protection requirements including those of civil works contractors, subcontractors and other providers of goods and services.

### III. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

78. The identification and management of E&S risks are fully mainstreamed into the overall governance of the PGRDF. All safeguard activities, including screening, categorization, assessment, meaningful consultation, monitoring and reporting are structured directly into this ESMS to ensure project sustainability and compliance.

#### A. PRE-QUALIFICATION

##### 1. Screening and Categorization of Subprojects

79. The Environmental and Social (E&S) screening and categorization process during the pre-qualification stage is illustrated in Figure 2. This process ensures that subprojects are evaluated early for potential risks before advancing to formal loan processing.

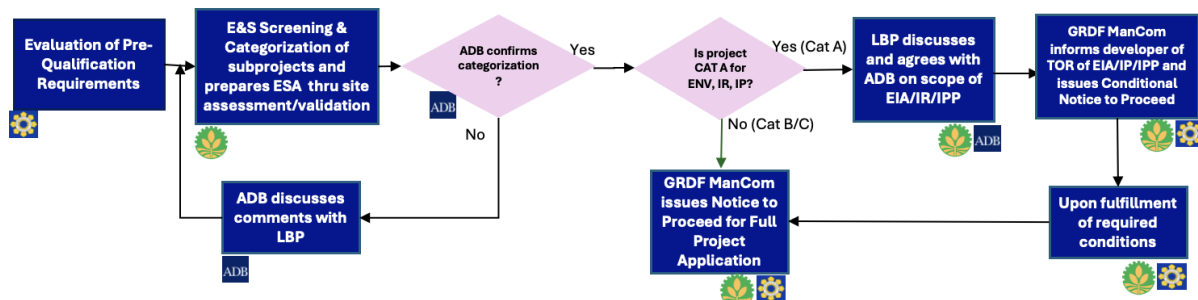


**Figure 2: E&S Process at Pre-Qualification Stage**

ADB = Asian Development Bank, Cat = Category, E&S = environmental and social, EIA = Environmental Impact Assessment, ENV = environment, ESA = Environmental and Social Assessment, PGRDF = Geothermal Resource Derisking Facility, IP = Indigenous Peoples, IPP = Indigenous Peoples Plan, RP = Resettlement Plan, LBP = Land Bank of the Philippines, TOR = terms of reference.

Source: Asian Development Bank and Department of Energy.

80. **First-Stage Screening: Administrative Completeness (DOE).** The E&S safeguards screening begins with the administrative “completeness check” conducted by the DOE. At this stage, no detailed technical or safeguard evaluation is performed. The focus is strictly on verifying the submission of mandatory E&S permits, licenses, and safeguard reports (i.e., IEE/EIA/RP/IPP). A comprehensive checklist of required E&S documents for this stage is provided in Appendix 2. Prior to LBP’s processing, the DOE Technical Team (DOE-TT) conducts a rigorous technical evaluation of the geothermal resource and project design.

81. **Second-Stage Screening: Technical Evaluation (LBP).** Upon confirmation of administrative completeness, the subproject undergoes a technical E&S screening to review and confirm its categorization under the ADB SPS (2009). The LBP Program Fund Management Team (PFMT), through its Environmental Programs Management Department (EPMD), cross-references the subproject against the ADB Prohibited Investment Activities (PIAL; Appendix 1). LBP-PFMT conducts site validation to verify on-the-ground conditions and determines the risk category for three pillars: Environment, Involuntary Resettlement, and Indigenous Peoples.

82. Upon DOE endorsement, LBP-PFMT initiates the due diligence process to assess the E&S implications of the subproject that focus on the following:

- a) **Site Sensitivities:** Assessment of land ownership, proximity to residential areas and indigenous people communities, historical/cultural sites, land ownership, requirement for site clearing and tree cutting, impact on rivers and other waterways, etc.);
- b) **Environmental Risks:** Site-specific impacts on hydrometeorological and geophysical hazards (e.g. landslides, floods);
- c) **Ecological and Resource Impacts:** Evaluation of terrestrial ecology, impact on rivers/waterways, water resources, and utility service requirements; and
- d) **Safety and Health:** Assessment of road and traffic safety, community health risks, and Occupational Health and Safety protocols.

83. LBP will prepare a formal Environmental and Social Assessment (ESA) alongside the screening checklists (Appendix 3 for Environment; Appendix 4 for Social Safeguards).

84. **Review and Confirmation of Categorization by ADB.** LBP-PFMT recommends subproject categorization as guided by the ADB SPS (2009) and thresholds in the PEISS, as follows:

**Table 5: E&S Categorization**

| Category | Environment                                                                                                                                                                                                                                                   | Involuntary Resettlement (IR)                                                                                                                                   | Indigenous Peoples (IP)                                                                                                                                    |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> | <b>Significant Impact:</b><br>Impacts are irreversible, diverse or unprecedented; affects areas larger than site. Includes projects in protected zones or large-scale roadworks ( $\geq 20.0$ km flat / $\geq 10.0$ km slope)<br><br>Requires an EIA and EMP. | <b>Significant Impact:</b><br>$\geq 200$ persons physically displaced or losing $\geq 10\%$ of productive assets.<br><br>Requires an SIA and Resettlement Plan. | <b>Significant Impact:</b><br>Direct/indirect threats to dignity, customary rights, land access, or cultural integrity.<br><br>Requires an SIA and IP Plan |
| <b>B</b> | <b>Moderate:</b> Impacts are site-specific, less adverse, fewer in number than Category A; largely reversible through standard mitigation.<br><br>Requires an IEE/EMP                                                                                         | <b>Limited Impact:</b><br>Impacts fewer than 200 individuals.<br><br>Requires a Resettlement Plan and SIA                                                       | <b>Limited Impact:</b><br>Likely to have limited effects.<br><br>Requires an SIA and IP Plan                                                               |
| <b>C</b> | <b>Minimal:</b> Little to no adverse environmental impacts                                                                                                                                                                                                    | <b>No Impact:</b><br>No IR impacts expected                                                                                                                     | <b>No Impact:</b> No IP impacts expected                                                                                                                   |

85. **ADB Verification.** All categorization results are submitted by LBP to ADB for formal confirmation. In the event of a disagreement regarding a safeguard categorization, ADB will consult with LBP-PFMT to provide recommendations for realignment. ADB will provide guidance to LBP on any E&S issues to be considered in the subproject's evaluation.

## 2. Handling of Category A Subprojects

86. Category A subprojects involve the highest level of E&S risks and are subject to an enhanced oversight process. This ensures that the PGRDF is not exposed to reputational or financial risk and that the developer's derisking strategy is robust. For subprojects classified as Category A, the following activities are conducted at pre-qualification:

### a) Joint Site Validation and Scoping

87. If a subproject is flagged as a potential Category A during initial screening, LBP-PFMT immediately coordinates with ADB to schedule a joint site visit. The purpose of this visit is to:

- Confirm if the impacts are truly significant or unprecedented in the meaning of the ADB SPS (2009);
- Finalize the Terms of Reference (TOR) for the EIA, RP, and IPP. This prevents the developer from wasting resources on insufficient studies by providing a clear roadmap for the required data from the start.

88. LBP notifies the developer/borrower of the categorization and provides the scope immediately to allow for early commencement of studies and report preparation by the developer.

### b) Conditional NTP

89. Category A subprojects are granted a Conditional NTP, which serves two functions:

- **Authorization:** It formally acknowledges the subproject as part of the PGRDF pipeline, allowing the developer to initiate environmental and social studies. This allows LBP and ADB to evaluate the EIA/RP/IPP reports.
- **Safeguards:** It strictly prohibits the developer from commencing any physical works, site clearing, or equipment mobilization. No project activity that could cause irreversible change to the site can occur until the full safeguard clearance or NTP is obtained.

90. The Conditional NTP cannot initiate the formal loan application process with LBP without first securing the NTP from the PGRDF Committee.

### c) Review of Safeguard Reports

91. LBP and ADB review the draft Environmental Impact Assessment (EIA), Resettlement Plan (RP), or Indigenous Peoples Plan (IPP) reports of Category A subprojects. The finalization of safeguard documents for Category A subprojects follow an iterative review process to ensure all identified risks are manageable:

- **Draft Submission and Quality Check:** The developer submits the draft reports to LBP-PFMT for an initial quality review. LBP checks that the data meets both national standards and the specific requirements of the PGRDF ESMS.
- **Technical Presentation to ADB:** For Category A subprojects, the developer (with consultant) is required to formally present the findings of the EIA, RP and IPP to the ADB project team. This presentation serves as a technical defense of the baseline data, the predicted impacts, and the proposed mitigation measures. The developer must prove that they have explored all feasible project alternatives to minimize environmental and social

risks and impacts. For projects in sensitive areas, specific Critical Habitat Assessments, Cultural Heritage Management Plans or similar thematic assessments, as relevant, must be conducted. The developer must present their budgetary commitment to implement the Environmental Management Plan (EMP), Resettlement Plan (RP) and Indigenous Peoples Plan (IPP).

- **Iterative Feedback Loop:** Following the presentation, ADB and LBP provide consolidated comments. The developer must address these through the iterative “comment-and-response” process. This cycle repeats until the documents reach a level of quality acceptable for public disclosure.

**d) Disclosure and Final Clearance**

92. The process for Category A concludes only when ADB issues a formal No Objection Letter (NOL), signifying that the safeguard instruments are technically sound and compliant with the ADB SPS.

- **120-day Public Disclosure of EIA Report:** In accordance with ADB’s Public Communications Policy and SPS, a strict disclosure timeline is enforced for Environment Category A subprojects. Once the final draft EIA report is cleared by ADB, the report must be posted on the ADB website for a minimum of 120 days before the PGRDF can grant a NTP. This period allows international and local stakeholders, including affected communities and NGOs, sufficient time to review the potential impacts and submit comments.
- **Disclosure of RP and IPP:** The draft RP / IPP must be submitted and disclosed on the ADB website before project appraisal. The final RP/IPP must be disclosed after the plan is completed and cleared by ADB.

93. The loan cannot be processed until the disclosure requirements and ADB clearance are finalized and the NTP is issued by PGRDF ManCom. Figure 3 presents the process for Category A subprojects.

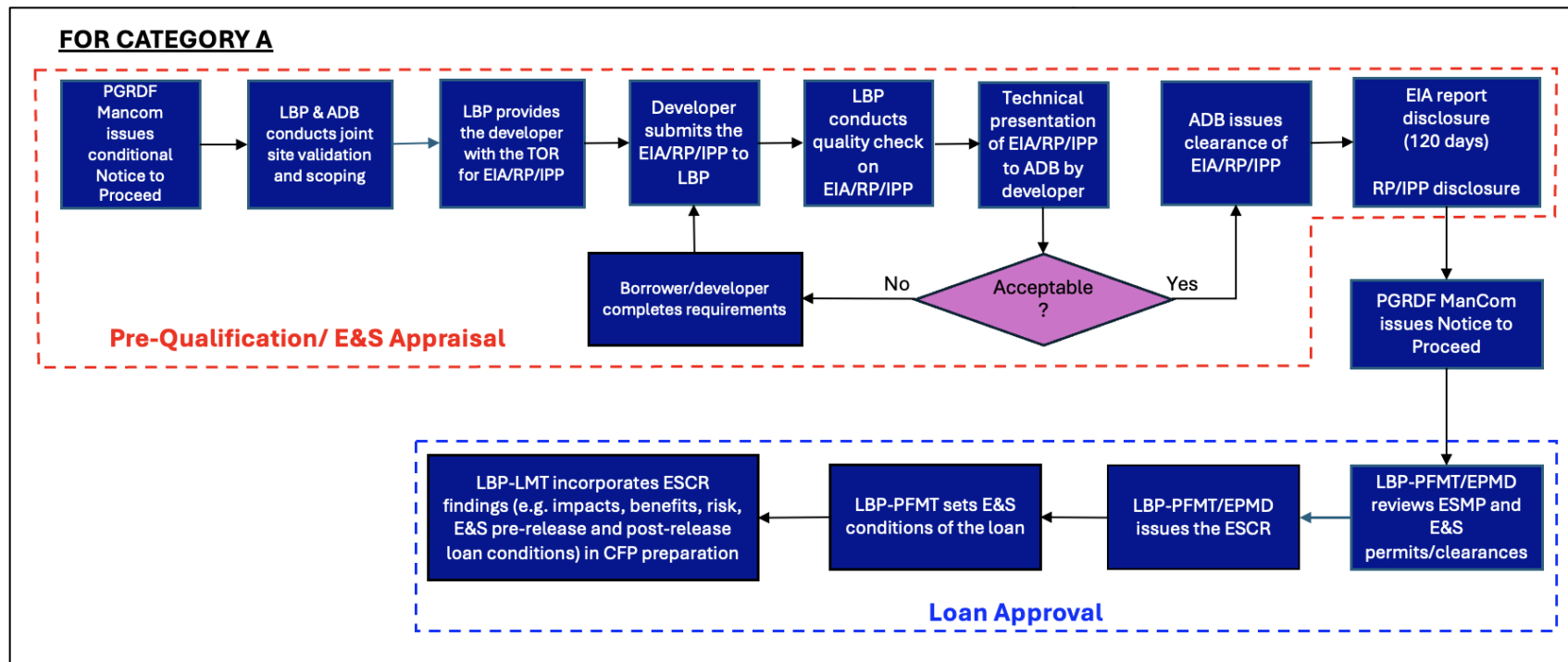


**Figure 3: E&S Process for Category A Subprojects**

ADB = Asian Development Bank, CFP = Credit Facility Proposal, PGRDF = Philippine Geothermal Resource Derisking Facility, IPP = Indigenous Peoples Plan, LBP = Land Bank of the Philippines, PAMB = Protected Area Management Board., RP = resettlement plan

#### 4. Handling Category B and C Subprojects

95. For subprojects classified as Category B or Category C, the procedural requirements are more streamlined compared to Category A, reflecting their lower risk profile. The requirements for Category B and C subprojects integrate the national environmental and social requirements of the Philippines. Categorization still requires formal confirmation by ADB before a NTP is granted. Upon confirmation, LBP informs the PGRDF Committee to issue the NTP for full project application to the subproject borrower. In many cases, the documentation prepared by/for national agencies (like the DENR-EMB or NCIP) serves as the primary basis for the issuance of the NTP.

- **Category B (Environment):** These subprojects typically align with the Philippine EIS System for “Non-Environmentally Critical Projects” located in “Environmentally Critical Areas.” The developer usually prepares an IEE Checklist or Report to obtain the ECC from the DENR. Under the ESMS, this national IEE is sufficient to fulfill the requirement, provided it includes a robust EMP.
- **Category B (Social):** If there is minor land acquisition or impact on Indigenous Peoples, the developer must follow national laws (such as the IPRA or the ARROW Act). LBP uses the documents generated for the NCIP clearance to satisfy the requirements for IP. For IR, RP as approved by LBP-PFMT will be required for each subproject.
- **Category C:** These subprojects are confirmed to have minimal or no adverse impacts. For these subprojects, the developer typically only needs to secure a Certificate of Non-Coverage (CNC) from the DENR and local permits. LBP relies on these national clearances and permits to confirm that no significant safeguards are triggered.

96. For Category B and C, having the national approvals (E&S clearances, permits and licenses) in place is a prerequisite for LBP to finalize its categorization and recommend the subproject for a NTP.

#### B. LOAN APPLICATION

97. This section outlines the transition from the Pre-Qualification phase to the formal Loan Application phase. It defines the specific technical and safeguard triggers required for LBP to proceed with financial processing. Below presents the E&S process during loan application.

**Table 6: E&S Process During Loan Application**

| Phase  | Step-by-Step Process                                                                                                                                                                                               | Responsible Unit |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Step 1 | <b>Submission and Technical Review:</b><br>LBP-PFMT and EPMD review the submitted ESMP alongside all mandatory E&S permits and national clearances (ECC, CNC, etc.)                                                | LBP-PFMT/EPMD    |
| Step 2 | <b>Preparation of the ESCR:</b><br>Upon successful verification of the documents, LBP-PFMT/EPMD prepares and issues the ESCR. This report confirms that the subproject is bankable and compliant with the ADB SPS. | LBP-PFMT/EPMD    |
| Step 3 | <b>Establishment of Loan Conditions:</b><br>Based on the risks identified in the ESCR, LBP-PFMT defines and sets the specific E&S conditions of the loan. These are                                                | LBP-PFMT         |

| Phase | Step-by-Step Process                                                                                  | Responsible Unit |
|-------|-------------------------------------------------------------------------------------------------------|------------------|
|       | integrated into the sub-loan agreement as legally binding Conditions Precedent and Project Covenants. |                  |

Note: CNC: Certificate of Non-Coverage; ECC = Environmental Compliance Certificate; ESCR = Environmental and Social Compliance Report; ESMP = Environmental and Social Management Plan; E&S = environmental and social.

## 1. E&S Prerequisites for Loan Submission

98. Once a subproject has been granted a full NTP by the PGRDF Committee, the borrower may formally submit a loan application to LBP. The application package must include the following safeguard documentation:

- Copies of all mandatory E&S permits and clearances (e.g. ECC/CNC, water permits, SAPA or SFLMA, etc.);
- The final EIA report for Category A or IEE for Category B
- The final RP and IPP for Category A and B;
- Environmental Management Plan (EMP) designed to mitigate all identified risks.

## 2. Environmental and Social Compliance Report (ESCR)

99. The LBP-PFMT/EPMD evaluates the loan application and prepares the ESCR. This document is a critical component of the final loan appraisal package and serves as the internal clearance for credit approval. It summarizes the results of the entire E&S due diligence process and that the subproject meets all requirements of the PGRDF ESMS and the ADB SPS (2009). LBP reserves the right to conduct supplementary site visits to verify waste management protocols, assess sensitive receptors, and evaluate any risks impacting long-term project viability.

100. The ESCR contains information on:

- Final risk categorization (A, B, or C) for the three safeguard areas (ENV, IR, IP);
- Verification of all required permits (ECC/CNC, water permits, SAPA or SFLMA, etc.);
- Summary of the Environmental Management Plan (EMP); and
- Identification of any outstanding risks and the specific measures the borrower must take to address them.

101. The ESCR is the prerequisite for the final credit approval. It proves that the project is environmentally and socially bankable.

## 3. E&S Conditions in the Loan Agreement

102. Once the ESCR is finalized, the specific requirements and mitigation measures are converted into legally binding covenants within the loan agreement. These are divided into two types:

### a) Conditions Precedent (Before Disbursement)

103. These are actions the borrower must complete before LBP releases any loan proceeds.

- **Permitting:** Proof of final, valid permits (e.g. NCIP's Certificate of Precondition for projects in ancestral domains).

- **Institutional Set-up:** Formal appointment of a designated Environmental Officer and/or Social Development Specialist at the project site.
- **Contractor Clauses:** Evidence that E&S requirements have been written into the contracts of the construction firms.

**b) Project Covenants (During Implementation)**

104. These are ongoing obligations the borrower must maintain throughout the life of the loan.
- **ESMP Execution:** Strict adherence to the mitigation measures (e.g. dust control, waste management, reforestation).
  - **Compliance Reporting:** Mandatory submission of Self-Monitoring Reports (SMRs) and Semi-Annual Safeguard Monitoring Reports to LBP and ADB.
  - **Grievance Redress:** Maintenance of a functional Grievance Redress Mechanism (GRM) to handle complaints from local communities.
  - **Incident Notification:** Requirement to notify LBP and ADB within 24 hours of any major accident, environmental spill, or social unrest at the site.
105. Table 7 provides an initial list of specific covenants typically required for geothermal drilling.

**Table 7: Sample Covenants**

| <b>1. Conditions Precedent (must be met before first disbursement)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>Permit Validation:</b> Submission of valid ECC/CNC and water permits for drilling fluid requirements.</li> <li>• <b>Institutional Capacity:</b> Appointment of qualified EHS Officer and a Social Development Officer at the project site.</li> <li>• <b>Grievance Redress:</b> Documentation proving that a GRM has been established and socialized with the host community.</li> <li>• <b>Contractor Compliance:</b> Evidence that the EMP and Occupational Health and Safety (OHS) protocols have been integrated into the bidding and contract documents of the drilling contractor.</li> </ul>                                                                                                                                                                                                                                                                                                                                          |
| <b>2. Project Covenants (Ongoing obligations during construction/drilling)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• <b>Waste and Sump Management:</b> Strict adherence to protocols for the containment and disposal of drilling mud and cuttings. The borrower must ensure zero discharge of toxic fluids into local waterways.</li> <li>• <b>Biodiversity Protection:</b> Prohibition of any tree-cutting or site expansion beyond the approved footprint defined in the ECC, ESMP and Critical Habitat Assessment (if applicable).</li> <li>• <b>Air and Noise Control:</b> Implementation of noise-reduction measures (e.g. silencers on drill rigs) and dust suppression (e.g. road watering) near residential receptors.</li> <li>• <b>Safety Standards:</b> Mandatory use of Personal Protective Equipment (PPE) and the conduct of regular safety drills for all personnel, including blow-out preventer (BOP) tests.</li> <li>• <b>Indigenous Peoples Rights:</b> If applicable, strict compliance with the IPP and the conditions of the FPIC.</li> </ul> |
| <b>3. Reporting and Notification Covenants</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• <b>Periodic Monitoring:</b> Submission of Semi-Annual Safeguard Monitoring Reports for Category B and Quarterly Monitoring Reports for Category A) to LBP.</li> <li>• <b>Incident Reporting:</b> Obligation to notify LBP within 24 hours of any significant environmental spill, landslide, or accident leading to serious injury or fatality.</li> <li>• <b>Public Disclosure:</b> Continued accessibility of the monitoring reports to the host community at the project site office.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## C. LOAN IMPLEMENTATION

106. The Loan Implementation section establishes a compliance framework for active subprojects, enforcing monitoring and reporting protocols for the ESMS. Figure 4 illustrates the workflow for this process, highlighting the iterative cycle of continuous monitoring, reporting cycles, corrective action planning, and public disclosure of E&S compliance.

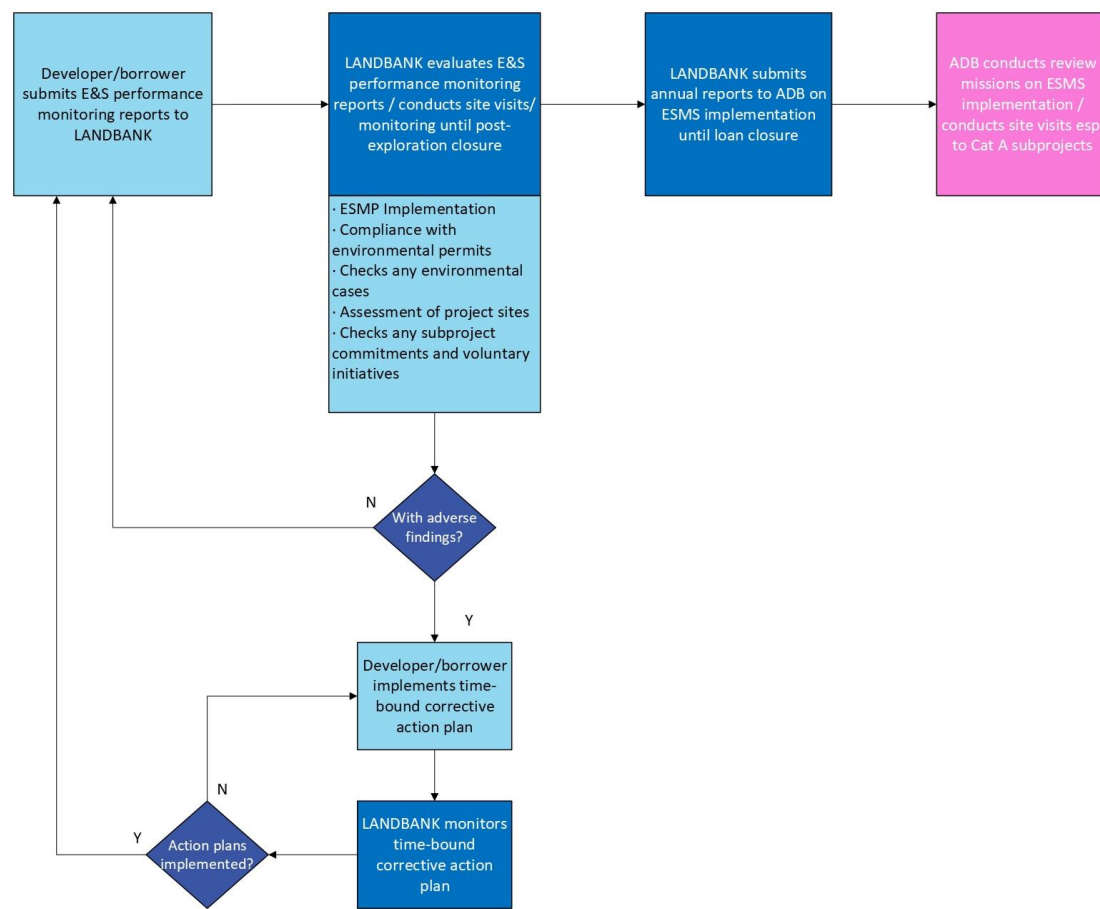


**Figure 4: E&S Process at Loan Implementation Stage**

ADB = Asian Development Bank, E&S = environmental and social, ESMP = Environmental and Social Management Plan, ESMS = Environmental and Social Management System, LBP = Land Bank of the Philippines, N = no, Y = yes. Source: Asian Development Bank and Department of Energy.

### 1. Environmental and Social Safeguards Monitoring by LBP

107. During subproject implementation, LBP will conduct E&S due diligence for all subprojects to ensure that safeguard requirements align with this ESMS and fully comply with ADB SPS requirements 1-3. This process involves a thorough review of compliance and performance based on a subproject's anticipated risks and impacts. The primary purpose of compliance monitoring is to ensure the implementation of sound, standardized E&S procedures defined during the application stage. Specifically, it aims to:

- Monitor compliance with conditions set in the ECC;
- Monitor adherence to EMPs and applicable laws, rules, and regulations;

- c) Provide a basis for timely decision-making and effective management of environmental measures by monitoring actual subproject impacts against those predicted in the EIA/IEE;
- d) Monitor compliance with Certificates of Precondition (CP)/MOA, RPs, IPPs. This includes ensuring timely and full compensation to Affected Persons (APs) prior to displacement, delivery of livelihood restoration and social support, public information dissemination, and adherence to grievance procedures. In cases where social impact assessments include corrective actions, LBP will monitor the progress of these actions for IR and IP impacts.

108. LBP will conduct site monitoring of the subproject developer's E&S performance. LBP may consult with affected communities and stakeholders to validate compliance and will evaluate E&S performance reports and conduct site visits until post-exploration closure. Site validation will verify:

- a) ESMP implementation;
- b) Compliance with conditions and requirements as set out in environmental permits and social safeguards documents;
- c) Any environmental cases filed with the DENR, LGUs, or other agencies;
- d) The condition of project sites and rehabilitation of disturbed areas;
- e) Voluntary initiatives undertaken to improve E&S performance.

109. Site visits and monitoring will also assess the performance of the borrower, its contractors, and subcontractors regarding Environment, Labor, Health and Safety (EHS). Monitoring will include a review of accident records, grievances, stakeholder engagement activities, and community concerns.

110. If adverse findings arise during site validation, LBP will immediately notify the borrower and require a time-bound Corrective Action Plan (CAP). LBP will then monitor the borrower's compliance with the CAP.

111. ADB will conduct review missions to monitor ESMS implementation and perform site visits, particularly for Category A subprojects.

112. For subprojects with significant adverse impacts (Category A) on Indigenous Peoples or Involuntary Resettlement, LBP will retain qualified external experts or NGOs to verify monitoring information. These experts will advise on compliance; if significant issues are identified, LBP with support from experts, will prepare a CAP. LBP will follow-up on implementation of corrective actions by the developer.

## 2. E&S Performance Monitoring Reports of Borrowers

113. Sub-borrowers must submit E&S performance monitoring reports to LBP as specified in the subproject's ESMP. The frequency depends on the project category:

- **Category A (High Risk):** Quarterly E&S monitoring reports and semi-annual site assessments. This allows for close tracking of sensitive projects to ensure risks are promptly mitigated.
- **Category B (Medium Risk):** Semi-annual E&S monitoring reports and annual site assessments. This provides a balanced oversight of foreseeable E&S issues.

- **Category C (Low Risk):** Annual reporting (integrated into project progress reports), with site assessments conducted only as necessary. This ensure efficient resource allocation while maintaining oversight.

114. Appendix 10 outlines the E&S monitoring report format. Projects covered by the PEISS must also perform regular self-monitoring in accordance with DENR Administrative Order 2003-30. Borrowers must submit a copy of their semi-annual Environmental Monitoring Report (submitted to the DENR) to LBP for reference.

### **3. Reporting by LBP to ADB on ESMS Implementation**

115. LBP will submit annual ESMS implementation reports to ADB until a Project Completion Report (PCR) is issued. These reports will detail the E&S safeguard status of each subproject, including:

- a) Implementation status and compliance with E&S obligations;
- b) Any breaches of compliance requirements;
- c) Status of GRM;
- d) Progress on corrective actions for non-compliance.

116. Environmental, IP, or resettlement monitoring reports for Category A subprojects will be included as annexes.

117. Annual E&S monitoring reports will be disclosed on the ADB website. Appendix 11 provides the template for this report.

### **5. Disclosure on ADB Website**

118. LBP, through the DOE, will submit the following for disclosure on the ADB website:

- **For Category A Environment:**
  - Draft EIA (including EMP) at least 120 days prior to project approval;
  - Final EIA
  - Updated EIA/EIS and CAPs prepared during implementation
  - Quarterly environmental monitoring reports.
- **For Category A Involuntary Resettlement:**
  - Draft, final, and updated Resettlement Plans
  - Corrective Action Plans (CAP) prepared during implementation;
  - Resettlement monitoring reports.
- **For Category A Indigenous Peoples:**
  - Draft, final and updated IPP (including a full social impact assessment) prior to subproject approval;
  - CAP prepared during implementation;
  - Monitoring reports.

119. The PGRDF will require project proponents to provide and disclose relevant E&S safeguard information to APs and stakeholders promptly, accessibly, and in understandable format.

120. Overall, subproject E&S monitoring requirements are determined by risk level, ranging from quarterly reporting for Category A to annual updates for Category C. Responsibility is divided

between LBP for due diligence, sub-borrowers for ESMP implementation, and ADB for oversight and disclosure. Table 8 summarizes these monitoring requirements.

**Table 8: E&S Monitoring Requirements**

| Category   | Classification of Impacts                                                                                                                        | Reporting Frequency                       | Site Assessment Frequency | Key Documentation / Disclosure                                                                                                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category A | Significant adverse impacts which are irreversible, diverse, or unprecedented                                                                    | Quarterly E&S Monitoring Reports          | Semi-Annual               | Draft final EIA (120 days) after ADB/LBP clearance<br><br>Final EIA/RP/IPP upon approval and clearance of ADB and prior to PGRDF issuance of NTP<br><br>CAPs, and E&S monitoring reports upon approval and clearance of ADB |
| Category B | Potential impacts are less adverse; site-specific impacts, few of which are irreversible, and in most cases mitigation measures may be developed | Semi-Annual E&S Monitoring Reports        | Annual                    | EMP, Environmental permits and Semi-Annual Monitoring Reports                                                                                                                                                               |
| Category C | Likely to have minimal or adverse impacts                                                                                                        | Annual (integrated into Progress Reports) | Only as needed            | Basic E&S status updates within progress report.                                                                                                                                                                            |

## **D. STAKEHOLDER ENGAGEMENT AND GRIEVANCE REDRESS MECHANISM**

### **1. Stakeholder engagement**

121. As part of the ESMS implementation, PGRDF Technical Team will conduct regular stakeholder engagement activities at the PGRDF level, aiming to gather feedback and input from stakeholders at the national and regional levels to enhance overall ESMS performance. This proactive approach ensures that the perspectives and experiences of stakeholders are incorporated into ongoing improvements of the environmental and social management system.

122. At the subproject level, stakeholder engagement and consultations will be guided by the principle of meaningful and effective participation. Stakeholders will be actively involved throughout the E&S safeguards screening, impact assessments, and implementation of management measures. This participatory approach aims to ensure that stakeholders' concerns and suggestions are genuinely considered, thereby enhancing the effectiveness and legitimacy of environmental and social safeguards. Where necessary, stakeholder engagement plans should be developed for each individual subproject.

## 2. Grievance redress mechanism

### a) Subproject level

123. All geothermal exploration subprojects financed by the PGRDF will be required to establish a grievance redress mechanism (GRM) for potentially affected communities and workers, ensuring that concerns and complaints from local communities and workers are addressed transparently, promptly, and fairly. Grievances unresolved at the subproject level may be elevated to the LBP. The GRM should be designed to foster trust, mitigate project risks, and uphold both the rights of affected parties and the integrity of the project's operations. The subproject level GRM shall adhere to the following GRM principles:

- **Accessibility and culturally appropriate:** The GRM must be easily accessible to all stakeholders, including marginalized groups and indigenous peoples, with information about the process clearly communicated in local languages and culture and formats suitable for the community.
- **Transparency:** The affected people will be appropriately informed about the mechanism.
- **Procedures, timelines, and contact points** should be publicly available, ensuring that all parties understand how grievances will be managed and resolved.
- **Multiple Channels for Submission:** Complaints should be accepted through various means—such as written forms, email, telephone, in-person submissions, and third-party intermediaries—to accommodate diverse preferences and capabilities.
- **Prompt Response and Resolution:** The mechanism should specify clear timeframes for acknowledging, investigating, and resolving grievances, with periodic updates provided to complainants.
- **Confidentiality and Non-Retaliation:** The GRM must safeguard the confidentiality of complainants and protect them from retaliation, encouraging open and honest feedback without fear of negative consequences.
- **Documentation and Record-Keeping:** All grievances and actions taken must be documented systematically, with records maintained for monitoring, reporting, and continuous improvement.
- **Alignment with Laws and ADB SPS:** The GRM should not impede access to the country's judicial or administrative remedies. The mechanism should comply with relevant national legislation and the ADB SPS, ensuring that it meets both local regulatory requirements and international best practices.
- **Linkages to Higher-Level Redress:** If grievances cannot be resolved at the subproject level, the system should provide clear pathways for escalation to the PGRDF, LBP committee, and ultimately to the ADB Accountability Mechanism, as described in the project context.
- **Stakeholder Engagement:** Regular consultation and feedback sessions with affected communities and workers should be held to assess the effectiveness of the GRM, address emerging concerns, and adapt procedures as needed.
- **Capacity Building:** Project staff responsible for managing the GRM should receive training on grievance handling, conflict resolution, and cultural sensitivity to ensure fair and effective outcomes.

### b) GRDF level

124. If affected communities or workers find that their concerns are not adequately addressed at the subproject level, they have the option to escalate their grievances by submitting a complaint

to the PGRDF through LBP. This process ensures that unresolved issues receive further investigation and resolution at a higher level.

125. As part of this ESMS, LBP will serve as the primary institution acting on behalf of the PGRDF to manage all grievances related to environmental and social concerns of potentially affected communities. Building on its existing mechanism, LBP, along with the PGRDF, is dedicated to providing quality service not only to the borrowers but also to their communities. This Grievance Redress Service (GRS) enables LBP to quickly address environmental and social issues linked to PGRDF-funded projects. If complaints remain unresolved or the outcome is unsatisfactory, the complainants can file their complaints to the LBP using a Complaint Form (Appendix 12).

126. The form shall be completed, signed and submitted to LBP – Environmental Programs Management Department via any of the following:

Address: 27 F LANDBANK Plaza 1598 M.H. Del Pilar corner Dr. J. Quintos St.,  
Malate, Manila, Philippines  
Email: [epmd@landbank.com](mailto:epmd@landbank.com)

127. **[Established referral pathways for addressing sexual exploitation, abuse, and harassment (SEAH) cases.** In addition to the subproject and PGRDF level GRM, LBP as the institution responsible for grievances is required to (i) establish a protocol for handling SEAH complaints, (ii) identify referral pathways to respond to SEAH cases in a survivor-centered, timely, and confidential manner. In case of grievances involving children, LBP shall refer to, or coordinate with qualified service providers for appropriate child protection expertise.]

## **E. ESMS REVIEW SCOPE AND PROCEDURE BY ADB**

128. The ESMS may be subject to periodic reviews and audits by the ADB to ensure that its implementation upholds robust quality standards, fully aligned with the ADB SPS. These audits form an essential part of the overall governance and assurance framework for geothermal exploration subprojects, as they help verify both procedural compliance and substantive effectiveness in managing environmental and social risks.

129. During a review, the ADB safeguard team conducts a thorough evaluation of the ESMS, examining documentation, processes, stakeholder engagement, and the overall execution of safeguard measures. This review includes site visits, interviews with project proponents and affected communities, and assessments of monitoring reports and corrective action plans. The audit team analyses the strengths of the ESMS, such as transparent information sharing, community participation, and proactive mitigation of adverse impacts, while also identifying any weaknesses—such as gaps in stakeholder consultation, delays in reporting, or shortcomings in the implementation of action plans.

130. Following this comprehensive assessment, the ADB safeguard team provides actionable recommendations to enhance the ESMS, aiming to strengthen governance, improve responsiveness to stakeholder concerns, and ensure consistent adherence to ADB standards. These recommendations may include improvements to internal procedures, capacity-building for project staff, refinement of monitoring and reporting mechanisms, and introduction of more effective corrective measures.

131. The ESMS review process is designed not only to uphold compliance but also to foster continuous improvement and learning. By providing a clear appraisal of ESMS implementation, ADB reviews and audits contribute to ongoing refinement of environmental and social safeguards, helping project proponents anticipate challenges and promote sustainable development outcomes across all project phases.

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## **APPENDICES**

Appendix 1: Prohibited Investment Activities

Appendix 2: E&S Checklist of Requirements for DOE Screening at Pre-Qualification Stage

Appendix 3: Environment Safeguards Screening Checklist

Appendix 4: Social Safeguards Screening Checklists

Appendix 5: Outline of an Environmental Impact Assessment Report (for category A projects)

Appendix 6: Outline of a Resettlement Plan

Appendix 7: Outline of an Indigenous Peoples Plan

Appendix 8: Outline of Stakeholder Engagement Plan

Appendix 9: Outline of Grievance Redress Mechanism

Appendix 10: Outline of E&S Monitoring Report (Developers/Borrowers to LBP)

Appendix 11: Outline of Annual E&S Safeguards Report (LBP to ADB)

Appendix 12: Complaint Form

## Appendix 1: Prohibited Investment Activities

- a) Production or activities involving harmful or exploitative forms of forced labor<sup>3</sup> or child labor<sup>4</sup>.
- b) Production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phaseouts or bans, such as (a) pharmaceuticals<sup>5</sup>, pesticides, and herbicides<sup>6</sup>, (b) ozone-depleting substances<sup>7</sup>, (c) polychlorinated biphenyls<sup>8</sup>, and other hazardous chemicals<sup>9</sup>, (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>10</sup>, and (e) transboundary trade in waste or waste products<sup>11</sup>;
- c) Production of or trade in weapons and munitions, including paramilitary materials;
- d) Production of or trade in alcoholic beverages, excluding beer and wine;<sup>12</sup>
- e) Production of or trade in tobacco;<sup>10</sup>
- f) gambling, casinos, and equivalent enterprises;<sup>10</sup>
- g) production of or trade in radioactive materials,<sup>13</sup> including nuclear reactors and components thereof;
- h) production of, trade in, or use of unbonded asbestos fibers;<sup>14</sup>
- i) commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
- j) marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

<sup>3</sup> Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

<sup>4</sup> Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" ([www.ilo.org](http://www.ilo.org)).

<sup>5</sup> A list of pharmaceutical products subject to phaseouts or bans is available at <http://www.who.int>.

<sup>6</sup> A list of pesticides and herbicides subject to phaseouts or bans is available at <http://www.pic.int>.

<sup>7</sup> A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at <http://www.unep.org/ozone/montreal.shtml>.

<sup>8</sup> A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.

<sup>9</sup> A list of hazardous chemicals is available at <http://www.pic.int>.

<sup>10</sup> A list is available at <http://www.cites.org>.

<sup>11</sup> As defined by the Basel Convention; see <http://www.basel.int>.

<sup>12</sup> This does not apply to project sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a project sponsor's primary operations.

<sup>13</sup> This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.

<sup>14</sup> This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

## Appendix 2: E&S Checklist of Requirements for DOE Screening at Pre-Qualification Stage

### 1. Environmental and Social Permits Required at Pre-Qualification Stage

| S/N | Environmental and Social Permits                                                                                                                                                                                                                                                                                                                       | Issued By                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1   | Resolution of Support                                                                                                                                                                                                                                                                                                                                  | Local government unit (LGU)                                                                  |
| 2   | Certification Precondition (CP) and Memorandum of Agreement (MOA) or Certificate of No-Overlap (CNO)                                                                                                                                                                                                                                                   | National Commission on Indigenous Peoples                                                    |
| 3   | Certificate of Non-Coverage (CNC) for seismic survey, gravity survey, geo-scientific, geophysical survey, reconnaissance, exploration, feasibility studies, piloting, core drilling/sampling research and development involving drilling that do not involve significant earth moving activities or pose significant ecological/vegetative disturbance | Department of Environment and Natural Resources (DENR) Environmental Management Bureau (EMB) |
| 4   | Environmental Compliance Certificate (ECC) for conventional drilling and construction activities                                                                                                                                                                                                                                                       | DENR-EMB                                                                                     |
| 5   | Protected Area Management Board (PAMB) Clearance for locations in multiple use zone of protected area                                                                                                                                                                                                                                                  | DENR-Biodiversity Management Bureau (BMB)                                                    |
| 6   | Relevant Land Use Agreements: Sustainable Forest Land Management Agreement (SFLMA) for areas in public domain for drilling and construction activities                                                                                                                                                                                                 | DENR Forest Management Bureau (DENR-FMB)                                                     |
| 7   | Special Land Use Agreement in Protected Areas (SAPA) for locations in multiple use zone of protected area                                                                                                                                                                                                                                              | DENR- BMB                                                                                    |
| 8   | National Water Resources Bureau (NWRB) Water Rights for surface water or deep well water abstraction                                                                                                                                                                                                                                                   | NWRB                                                                                         |
| 9   | Tree Cutting Permit (TCP)                                                                                                                                                                                                                                                                                                                              | DENR-FMB, DENR-PENRO/CENRO                                                                   |
| 10  | Other permits identified by the applicant that are needed to develop the geothermal areas                                                                                                                                                                                                                                                              |                                                                                              |

*Note: For pending permits, provide status and feedback from authorities.*

### 2. E&S documents required per subproject category

| Safeguard Requirement | Description                                                                                                                                                                                                                                                                                                                                                                                   | Requirements                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Category A</b>     |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Environment           | <ul style="list-style-type: none"> <li>Significant adverse, irreversible, diverse, or unprecedented; may affect area larger than sites or facilities</li> <li>Activities in strict protection zones of legally declared protected area</li> <li>National road: <math>\geq 20.0</math> km (length with no critical slope) or <math>\geq 10.0</math> km (length with critical slope)</li> </ul> | <ul style="list-style-type: none"> <li>LBP's conduct of Environmental Social Assessment (ESA) and preparation of an ESCR</li> <li>LBP review of EIS report submitted to DENR as part of the ECC Application</li> <li>ADB and LBP development of the scope of the EIA based on the review of screening checklist</li> <li>PGRDF issuance of a Conditional Notice to Proceed (NTP) to the developer together with comments on</li> </ul> |

| Safeguard Requirement    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | <ul style="list-style-type: none"> <li>Provincial road and other types of roads: <math>\geq 20.0</math> km (length with no critical slope) or <math>\geq 10.0</math> km (length with critical slope)</li> <li>Provincial road and other types of roads: <math>&gt;50\%</math> increase in capacity (or in terms of length/width) and <math>\geq 20.0</math> km, (length with no critical slope) or <math>\geq 10.0</math> km (length with critical slope)</li> </ul> | <p>the EIA for inclusion and submission by the developer to ADB and the LBP.</p> <ul style="list-style-type: none"> <li>Draft EIA (or EIS) to be disclosed at ADB website for 120 days.</li> <li>Disclosure of final EIA at ADB Project website (once cleared by ADB)</li> <li>Submission to LBP of a copy of the ECC, SAPA/SFLMA, FPIC, PAMB Clearance and other E&amp;S permits as required for each subproject.</li> <li>Sub-borrower submission of quarterly E&amp;S safeguards monitoring reports to LBP</li> <li>LBP semi-annual site assessment/ inspection to ensure E&amp;S risks are promptly identified and mitigated</li> <li>ADB conduct of review missions and site visits to monitor ESMS implementation</li> </ul>                                                                                                   |
| Involuntary Resettlement | <p>Projects affecting 200+ people through displacement or loss of 10% or more productive assets require a social impact assessment and resettlement plan.</p>                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>ADB and LBP development of the scope of RP including SIA based on the screening checklist</li> <li>PGDRF issuance of a Conditional Notice to Proceed (NTP) to the developer together with comments on the RP for inclusion and submission by the developer to ADB and the LBP</li> <li>Disclosure of RP (cleared by ADB) at ADB website before project appraisal</li> <li>Submission to LBP of a copy of the FPIC and other E&amp;S permits as required for each subproject.</li> <li>Sub-borrower submission of quarterly E&amp;S Safeguards Monitoring reports to LBP</li> <li>LBP semi-annual site assessments/ inspection to ensure E&amp;S risks are promptly identified and mitigated</li> <li>ADB conduct of review missions and site visits to monitor ESMS implementation</li> </ul> |
| Indigenous People        | <p>The subproject is expected to have significant direct and indirect impacts on the dignity of Indigenous Peoples, their customary rights regarding the use and access to land and natural resources, their socioeconomic status, cultural and communal integrity, health, education, livelihood, and social security. Furthermore, it will affect the recognition of indigenous knowledge and their vulnerability. Therefore, a</p>                                | <ul style="list-style-type: none"> <li>ADB and LBP development of the scope of the IPP including SIA based on the screening checklist</li> <li>PGRDF issuance of a Conditional NTP to the developer together with comments on the IPP for inclusion and submission by the developer to ADB and the LBP</li> <li>Submission to LBP of a copy of FPIC, CNO or CP as applicable following RA 8371</li> <li>Disclosure of IPP on ADB website</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |

| Safeguard Requirement    | Description                                                                                                                                                                                                     | Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | social impact assessment and Indigenous Peoples Plan is required.                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Category B</b>        |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Environment              | Less adverse, fewer in number than Category A; site-specific, few if any are irreversible; impacts can be addressed through mitigation                                                                          | <ul style="list-style-type: none"> <li>• Preparation of an Environmental Management Plan or Environment and Social Management Plan (ESMP)</li> <li>• LBP conduct of ESA and preparation of ESCR</li> <li>• LBP review of ECC or CNC (as applicable)</li> <li>• Submission to LBP of a copy of the ECC, SAPA/SFLMA, PAMB Clearance and other E&amp;S permits as required for each subproject.</li> <li>• LBP preparation of semi-annual E&amp;S Monitoring reports submitted to ADB</li> <li>• LBP annual site monitoring</li> </ul>                                                                                                                                                                                                                                                 |
| Involuntary Resettlement | <p>Projects/subprojects that will significantly impact fewer than 200 individuals.</p> <p>A resettlement plan, including an assessment of social impacts, is required, following ADB SPS and national laws.</p> | <ul style="list-style-type: none"> <li>• ADB and LBP development of the scope of RP including SIA based on the screening checklist</li> <li>• PGRDF issuance of a Conditional Notice to Proceed (NTP) to developer together with comments on the RP for inclusion and submission by the developer to ADB and LBP</li> <li>• Disclosure of RP on ADB website</li> <li>• E&amp;S Monitoring Report; Corrective Action Plan (when required)</li> <li>• LBP semi-annual site assessment/inspection to ensure E&amp;S risks are promptly identified and mitigated</li> <li>• LBP retains qualified and experienced external experts or qualified NGOs to verify monitoring information</li> <li>• ADB conducts review missions and site visits to monitor ESMS implementation</li> </ul> |
| Indigenous People        | Project/subprojects that will likely have limited impacts on Indigenous Peoples. A social impact assessment and indigenous people plan is required, following ADB SPS and national laws                         | <ul style="list-style-type: none"> <li>• ADB and LBP development of the scope of the IPP including SIA based on the screening checklist</li> <li>• PGRDF issuance of a Conditional Notice to Proceed (NTP) to the developer together with comments on the IPP for inclusion and submission by the developer to ADB and the LBP</li> <li>• Submission to LBP of a copy of FPIC, CNO or CP as applicable following RA 8371</li> <li>• Disclosure of IPP on ADB website</li> <li>• E&amp;S Monitoring Report; Corrective Action Plan (when required)</li> </ul>                                                                                                                                                                                                                        |

| Safeguard Requirement    | Description                                                                                                                                                   | Requirements                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                                                                                                                                                               | <ul style="list-style-type: none"> <li>LBP semi-annual site assessment/ inspection to ensure E&amp;S risks are promptly identified and mitigated</li> <li>LBP retains qualified and experienced external experts or qualified NGOs to verify monitoring information</li> <li>ADB conducts review missions and site visits to monitor ESMS implementation</li> </ul> |
| <b>Category C</b>        |                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                     |
| Environment              | Minimal or no adverse environmental impacts                                                                                                                   | <ul style="list-style-type: none"> <li>No EIA, IEE or EMP required</li> <li>Due diligence review by LBP to confirm minimal impacts</li> <li>CNC (if required under the PEISS)</li> <li>Annual reporting integrated in project progress reports by LBP</li> <li>Site visit in case any issues arise and/or as needed</li> </ul>                                      |
| Involuntary Resettlement | Project/subproject is likely to have no involuntary resettlement impacts whatsoever.<br>No further action is required, but due diligence to confirm is needed | <ul style="list-style-type: none"> <li>LBP review of screening confirming there are no IR impacts</li> </ul>                                                                                                                                                                                                                                                        |
| Indigenous People        | Subproject is likely to have no Indigenous Peoples impacts whatsoever.<br>No further action is required, but due diligence to confirm is needed               | <ul style="list-style-type: none"> <li>LBP review of screening confirming there are no IP impacts</li> <li>Due diligence review by LBP to confirm no impacts</li> </ul>                                                                                                                                                                                             |

### Appendix 3: Environment Safeguards Screening Checklist

This environment safeguards screening checklist is to be used by LBP following the review of project documents, plans, permits and clearances such as EIS/IEE, ECC/CNC, feasibility study, and SAPA/SFLMA, etc. as provided by the DOE to LBP. The results of the environmental safeguards screening will determine the project category under ADB SPS, subject to further confirmation by ADB.

#### PART I. Basic Project Information

| <b>1. Name of Subproject</b>                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|---|--|--|---|--|--|---|--|--|---|--|--|-----|--|--|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2. Project Location</b>                                                                                                                                                                                                                                                                                          | <b>Street/Sitio/Barangay</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Zone/Classification</b><br>(i.e. protected area, forestland, industrial forest, residential, etc.) |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                     | <b>Municipality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>3. Proponent Name</b>                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>4. Proponent Address</b>                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>5. Proposed Project Activities</b>                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <input type="checkbox"/> <b>No. of wells</b><br><input type="radio"/> 1<br><input type="radio"/> 2<br><input type="radio"/> 3<br><input type="radio"/> 4<br><input type="radio"/> >5, specify number ____                                                                                                           | <input type="checkbox"/> <b>Area Affected by well exploration (state sitio/barangay)</b><br><table border="1"> <thead> <tr> <th>Well No.</th> <th>Sitio/ Barangay</th> <th>Area (sqm)</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>...</td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table> |                                                                                                       | Well No.                                                                                                                                                     | Sitio/ Barangay | Area (sqm) | 1 |  |  | 2 |  |  | 3 |  |  | 4 |  |  | ... |  |  |  |  |  | <input type="checkbox"/> <b>Duration of Works per Well</b><br><input type="radio"/> 1 – 2 months<br><input type="radio"/> 3 – 6 months<br><input type="radio"/> > 6 months<br><br>Attached work plan |
| Well No.                                                                                                                                                                                                                                                                                                            | Sitio/ Barangay                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Area (sqm)                                                                                            |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| 1                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| 2                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| 3                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| 4                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| ...                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>5. Description of Project Site and Surrounding Communities:</b>                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>Questions</b>                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Yes/No</b>                                                                                         | <b>Remarks</b>                                                                                                                                               |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <b>A. Screening of Location in Ecologically Sensitive Areas</b>                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                                                                                                                                              |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <input type="checkbox"/> Is the subproject and its associated facilities (e.g. access roads, quarries, spoils disposal area, camp) located in strict protection zone of a protected area designated by government, i.e. national park, forest reserve, game refuge, protected landscape, protected watershed, etc.? |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | If yes, subproject is not eligible for funding under PGRDF.                                                                                                  |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |
| <input type="checkbox"/> Is the subproject and its associated facilities e.g. access roads, quarries, spoils disposal area, camp) located in a multiple use zone of a protected area? State the name of the protected area in Remarks column.                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | If yes, present the PAMB Resolution and Clearance and SAPA/SFLMA. Prepare an ESMP that include biodiversity management measures to ensure that activities do |                 |            |   |  |  |   |  |  |   |  |  |   |  |  |     |  |  |  |  |  |                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                   |  | not encroach into the strict protection zone and that there are measures to avoid impacts and degradation of the protected area.                                                         |
| <input type="checkbox"/> Will the subproject involve conversion or reclassification of critical natural habitats and watersheds?                                                                                                                                                                  |  | If yes, subproject is not eligible for funding under PGRDF.                                                                                                                              |
| <input type="checkbox"/> Will the subproject cause permanent removal or change in land use of natural habitats that would lead to the significant loss of indigenous or endemic wildlife, flora and fauna and affect biodiversity?                                                                |  | If yes, subproject is not eligible for funding under PGRDF.                                                                                                                              |
| <input type="checkbox"/> Will the subproject cause adverse effects to ecosystem services, i.e. watershed services to water supply, irrigation, fisheries, water storage, protection from natural hazards, habitats of species, and cultural services (sacred sites, burial sites, and monuments)? |  | If yes, subproject needs to assess important ecosystem services. ESMP must include measures on conservation of biodiversity/habitats to maintain ecological functions.                   |
| <input type="checkbox"/> Will the subproject require clearing of trees and forest at the well site(s) and along route?                                                                                                                                                                            |  | If yes, conduct inventory of trees and include measures in the ESMP to conserve trees. Secure Tree Cutting/Earthballing Permit from DENR.                                                |
| <input type="checkbox"/> Is the subproject location in steep slope? Is the site within a landslide-prone area?                                                                                                                                                                                    |  | If yes, conduct Geological Site Scoping with the DENR-Mines and Geosciences Bureau (MGB) and include mitigation measures in the ESMP.                                                    |
| <input type="checkbox"/> Are the well pads located next to a waterway, i.e. creek, river?                                                                                                                                                                                                         |  | If yes, subproject needs to provide mitigation measures to avoid impacts to waterways and drainage systems.                                                                              |
| <input type="checkbox"/> Will the project affect springs, rivers, irrigation water, groundwater?                                                                                                                                                                                                  |  | If yes, assess impacts of the project to these water resources. Provide measures in the ESMP.                                                                                            |
| <input type="checkbox"/> Is the project site affected by flooding?<br>If yes, how frequent in a year? Describe extent of flooding?                                                                                                                                                                |  | If yes, subproject needs to provide mitigation measures to avoid flooding and soil runoff.                                                                                               |
| <b>B. Screening of Impacts to Communities</b>                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                          |
| <input type="checkbox"/> Is the project located close to a residential community?                                                                                                                                                                                                                 |  | If yes, provide information on approximate distance to the residential community. Provide mitigation measures in the ESMP to avoid adverse impacts, i.e. noise, dust, traffic accidents. |
| <input type="checkbox"/> Is the project located close to an agricultural community?                                                                                                                                                                                                               |  | If yes, provide information on approximate distance to the agricultural community and crops planted. Provide mitigation measures in the                                                  |

|                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                     |  | ESMP to avoid adverse impacts, i.e. soil runoff, discharge of wastes and emissions that may affect agricultural productivity.                                                                                                 |
| <input type="checkbox"/> Are there be hospitals and health clinics with lying-in services located next to the construction site(s) that may be affected by dust, noise, traffic, and construction-related nuisance? |  | If yes, include mitigation measures in the ESMP.                                                                                                                                                                              |
| <input type="checkbox"/> Are there be religious places (churches, mosques, etc.) located next to the construction site that may be affected by dust, noise, traffic, and construction-related nuisance??            |  | If yes, include mitigation measures in the ESMP.                                                                                                                                                                              |
| <input type="checkbox"/> Are there available roads going to the project site(s)?                                                                                                                                    |  | If yes, specify if the road(s) going to the geothermal site is wide enough to accommodate construction vehicles and if there are communities that may be affected by truck movement. Include mitigation measures in the ESMP. |
| <input type="checkbox"/> Are there culturally/historically important buildings or areas within 1 km from the site?                                                                                                  |  | If yes, include a cultural heritage conservation plan in the ESMP.                                                                                                                                                            |
| <input type="checkbox"/> Will the project require explosives for blasting?                                                                                                                                          |  | If yes, include ensure explosives use have the required are permits from the government and that measures to avoid impacts to communities and forest areas are outlined in the ESMP.                                          |
| <b>C. Wastes and Emissions</b>                                                                                                                                                                                      |  |                                                                                                                                                                                                                               |
| <input type="checkbox"/> Will the subproject result in the release of non-condensable gases (NCG) such as CO <sub>2</sub> , H <sub>2</sub> S, CH <sub>4</sub> , and NH <sub>3</sub> ?                               |  | If yes, include measures in the ESMP to avoid emissions.                                                                                                                                                                      |
| <input type="checkbox"/> Will the subproject activities result to the discharge of mud and cuttings that contain hazardous components?                                                                              |  | If yes, includes measures in the ESMP to avoid discharge of wastes.                                                                                                                                                           |
| <input type="checkbox"/> Will the subproject result in production of solid or liquid wastes (e.g. domestic/sewage, construction wastes, wastewater) during geothermal exploration?                                  |  | If yes, include measures in the ESMP to avoid / manage discharge wastes.                                                                                                                                                      |

## PART II. Environment and Social Impacts Screening

| Environmental and Social Impacts | Indicate level of project impact |                         |                  | Identify mitigating measures |
|----------------------------------|----------------------------------|-------------------------|------------------|------------------------------|
|                                  | High<br>(major impact)           | Medium<br>(manage-able) | Low<br>(minimal) |                              |
| ENVIRONMENTAL IMPACTS            |                                  |                         |                  |                              |
| Site sensitivity                 |                                  |                         |                  |                              |
| Vulnerability to earthquakes     |                                  |                         |                  |                              |
| Vulnerability to landslides      |                                  |                         |                  |                              |
| Vulnerability to flooding        |                                  |                         |                  |                              |
| Vulnerability to liquefaction    |                                  |                         |                  |                              |
| Proximity of fault line          |                                  |                         |                  |                              |

|                                                                                                                                                                           |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Proximity to hospitals, lying-in clinics, and churches/mosques                                                                                                            |  |  |  |  |
| <b>Geology/Soils</b>                                                                                                                                                      |  |  |  |  |
| Soil Erosion                                                                                                                                                              |  |  |  |  |
| <b>Terrestrial Biology</b>                                                                                                                                                |  |  |  |  |
| Cutting of trees                                                                                                                                                          |  |  |  |  |
| <b>Hydrology</b>                                                                                                                                                          |  |  |  |  |
| Change in drainage flow                                                                                                                                                   |  |  |  |  |
| Inducement of flooding                                                                                                                                                    |  |  |  |  |
| Clogging of natural waterways                                                                                                                                             |  |  |  |  |
| <b>Water Resource and Utility Services Availability</b>                                                                                                                   |  |  |  |  |
| Limited access to potable water                                                                                                                                           |  |  |  |  |
| Water resource degradation                                                                                                                                                |  |  |  |  |
| Impact on existing sanitation and sewerage services                                                                                                                       |  |  |  |  |
| <b>Waste generation</b>                                                                                                                                                   |  |  |  |  |
| Domestic sewage                                                                                                                                                           |  |  |  |  |
| Solid wastes                                                                                                                                                              |  |  |  |  |
| Hazardous wastes                                                                                                                                                          |  |  |  |  |
| Unused/ left over construction materials                                                                                                                                  |  |  |  |  |
| Asbestos materials                                                                                                                                                        |  |  |  |  |
| Explosives                                                                                                                                                                |  |  |  |  |
| Construction debris                                                                                                                                                       |  |  |  |  |
| <b>Air Quality/ Noise / Vibration</b>                                                                                                                                     |  |  |  |  |
| Air pollution                                                                                                                                                             |  |  |  |  |
| Dust                                                                                                                                                                      |  |  |  |  |
| NCG emission                                                                                                                                                              |  |  |  |  |
| Increase in noise                                                                                                                                                         |  |  |  |  |
| Increase in vibration                                                                                                                                                     |  |  |  |  |
| <b>Road and Traffic safety</b>                                                                                                                                            |  |  |  |  |
| Traffic congestion/blocked roadways                                                                                                                                       |  |  |  |  |
| Community health and safety risks due to transport, storage and use and/or disposal of materials likely to create physical, chemical, biological and radiological hazards |  |  |  |  |
| <b>People</b>                                                                                                                                                             |  |  |  |  |
| Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological and radiological hazards                                        |  |  |  |  |
| Social conflicts if workers from other regions or countries are hired                                                                                                     |  |  |  |  |
| Uncontrolled human migration into the area, made possible by access roads created by the subproject                                                                       |  |  |  |  |
| Effect on Community health and safety including sexual harassment and GBV                                                                                                 |  |  |  |  |
| Effect on Occupational health and safety                                                                                                                                  |  |  |  |  |
| Spread of Communicable Diseases, i.e. COVID-19, etc.                                                                                                                      |  |  |  |  |

### Summary of Environment Safeguard Screening Results

Check box that applies:

- ☐ The subproject is not eligible for funding under PGRDF due to (*State reason*): \_\_\_\_\_
- \_\_\_\_\_
- ☐ The subproject is not yet cleared of safeguards requirements pending compliance of the following: (*State the pending requirements*) \_\_\_\_\_
- \_\_\_\_\_
- ☐ The subproject is classified as Category \_\_\_\_ for environment safeguards under ADB SPS:
- ☐ Category A
  - ☐ Category B
  - ☐ Category C

|                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Prepared/Submitted by:                     | Approved by:                               | Noted by:                                  |
| <i>Signature over Printed Name<br/>LBP</i> | <i>Signature over Printed Name<br/>LBP</i> | <i>Signature over Printed Name<br/>LBP</i> |

### ADB Confirmation of Categorization

Based on review of the PGRDF screening checklist and other subproject supporting documents, ADB confirms the subproject category for environment safeguards:

- ☐ **Category A:** The subproject developer may be issued a Conditional Notice to Proceed and is required to complete/submit:
- ☐ Environmental Impact Assessment (EIA) as per Terms of Reference (TOR)/Outline of EIA.
  - ☐ Environmental Management Plan (EMP)
- ☐ **Category B:** The subproject developer may be issued a Notice to Proceed for full project application and is required to complete:
- ☐ Environmental Management Plan (EMP)
- ☐ **Category C:** The subproject developer may be issued a Notice to Proceed for full project application.

Categorization concurred by:

*Signature over Printed Name  
ADB Designation*

## Appendix 4: Social Safeguards Screening Checklists

The checklist facilitates early identification of social risks and impacts associated with geothermal exploration projects, ensuring compliance with ADB's requirements for involuntary resettlement, indigenous peoples, and other social dimensions.

### I. Basic Project Information

|                                                                         |                       |                                                                                                                                                                       |                                               |                 |         |
|-------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------|---------|
| Name of Subproject                                                      |                       |                                                                                                                                                                       |                                               |                 |         |
| Overall Project Location                                                | Street/Sitio/Barangay |                                                                                                                                                                       | Zone/Classification (i.e. ancestral domains.) |                 |         |
|                                                                         | Municipality          |                                                                                                                                                                       |                                               |                 |         |
| Proponent Name                                                          |                       |                                                                                                                                                                       |                                               |                 |         |
| Proponent Address                                                       |                       |                                                                                                                                                                       |                                               |                 |         |
| <b>5. Proposed Project Activities</b>                                   |                       |                                                                                                                                                                       |                                               |                 |         |
| <b>Information on Affected Land</b>                                     |                       |                                                                                                                                                                       |                                               |                 |         |
| Land classification (i.e., Residential, Commercial, Agricultural, etc.) |                       |                                                                                                                                                                       |                                               |                 |         |
| Actual land use (i.e., Residential, Commercial, Agricultural, etc.)     |                       |                                                                                                                                                                       |                                               |                 |         |
| Land required for subproject activities                                 |                       |                                                                                                                                                                       |                                               |                 |         |
| Landowner                                                               |                       | _____ Public: name of landowner: _____ Private, name of landowner: _____                                                                                              |                                               |                 |         |
| Proof of ownership over the land                                        |                       | _____ Title (OCT/TCT/CLOA, CADT)<br>_____ Mortgage/Deed<br>_____ Tax Clearance<br>_____ Contract<br>_____ CBFMR/Stewardship agreement<br>_____ Others, specify: _____ |                                               |                 |         |
| Access road                                                             | Length (m)            | New or old                                                                                                                                                            | Municipality                                  | Sitio/ Barangay | Remarks |
| 1                                                                       |                       |                                                                                                                                                                       |                                               |                 |         |
| 2                                                                       |                       |                                                                                                                                                                       |                                               |                 |         |
| ...                                                                     |                       |                                                                                                                                                                       |                                               |                 |         |
| Well pad                                                                | Municipality          |                                                                                                                                                                       | Sitio/ Barangay                               | Areas (sqm)     | Remarks |
| 1                                                                       |                       |                                                                                                                                                                       |                                               |                 |         |
| 2                                                                       |                       |                                                                                                                                                                       |                                               |                 |         |

## I. Involuntary Resettlement Impact Checklist

| Probable Involuntary Resettlement Effects                                                                | Yes | No | Not Known | Remarks                                                  |
|----------------------------------------------------------------------------------------------------------|-----|----|-----------|----------------------------------------------------------|
| <b>Involuntary Acquisition of Land</b>                                                                   |     |    |           |                                                          |
| 1. Will there be land acquisition?                                                                       |     |    |           |                                                          |
| 2. Is the site for land acquisition known?                                                               |     |    |           |                                                          |
| 3. Is the ownership status and current usage of land to be acquired known?                               |     |    |           |                                                          |
| 4. Will easement be utilized within an existing Right of Way (ROW)?                                      |     |    |           |                                                          |
| 5. Will there be loss of agricultural and other productive assets due to land acquisition?               |     |    |           |                                                          |
| 6. Will there be loss of agricultural and other productive assets due to land acquisition?               |     |    |           |                                                          |
| 7. Will there be losses of crops, trees, and fixed assets due to land acquisition?                       |     |    |           |                                                          |
| 8. Will there be loss of businesses or enterprises due to land acquisition?                              |     |    |           |                                                          |
| 9. Will there be loss of income sources and means of livelihoods due to land acquisition?                |     |    |           |                                                          |
| <b>Involuntary restrictions on land use or on access to legally designated parks and protected areas</b> |     |    |           |                                                          |
| 1. Will people lose access to natural resources, communal facilities and services?                       |     |    |           |                                                          |
| 2. If land use is changed, will it have an adverse impact on social and economic activities?             |     |    |           |                                                          |
| 3. Will access to land and resources owned communally or by the state be restricted?                     |     |    |           |                                                          |
| <b>Information on Displaced Persons</b>                                                                  |     |    |           |                                                          |
| <b>Any estimate of the likely number of persons that will be displaced by the Subproject?</b>            |     |    |           | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If yes, approximately how many? _____                                                                    |     |    |           |                                                          |
| <b>Are any of them poor, female-heads of households, or vulnerable to poverty risks?</b>                 |     |    |           | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| <b>Are any displaced persons from indigenous groups?</b>                                                 |     |    |           | <input type="checkbox"/> No <input type="checkbox"/> Yes |

## II. Indigenous Peoples Impact Screening Checklist

| KEY CONCERNS<br>(Please provide elaborations on the Remark column)                                                                                                                                  | Yes | No | Not Known | Remarks |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----------|---------|
| <b>A. Indigenous People Identification</b>                                                                                                                                                          |     |    |           |         |
| 1. Are there socio-cultural groups present in or use the subproject area who may be considered as "minorities" (ethnic or national minorities), or "indigenous communities" in the subproject area? |     |    |           |         |
| 2. Are minorities or indigenous communities officially registered and recognized by NCIP?                                                                                                           |     |    |           |         |
| 3. Do such groups self-identify as being part of a distinct social and cultural group?                                                                                                              |     |    |           |         |
| 4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?                                  |     |    |           |         |
| 5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?                                                                   |     |    |           |         |
| 6. Do such groups speak a distinct language or dialect?                                                                                                                                             |     |    |           |         |

|                                                                                                                                                                                                                                                                                                           |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?                                                                                                                                                                       |  |  |  |  |
| 8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "tribal populations" in any formal decision-making bodies at the national or local levels?                                                                                                                            |  |  |  |  |
| <b>B. Identification of Potential Impacts</b>                                                                                                                                                                                                                                                             |  |  |  |  |
| 9. Will the subproject directly or indirectly benefit or target Indigenous Peoples?                                                                                                                                                                                                                       |  |  |  |  |
| 10. Will the subproject directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)                                                                                                                  |  |  |  |  |
| 11. Will the subproject affect the livelihood systems of indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)                                                                                                                             |  |  |  |  |
| 12. Will the subproject be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?                                                                                                                                                             |  |  |  |  |
| <b>C. Identification of Special Requirements</b><br><i>Will the subproject activities include:</i>                                                                                                                                                                                                        |  |  |  |  |
| 13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?                                                                                                                                                                                                                 |  |  |  |  |
| 14. Physical displacement from traditional or customary lands?                                                                                                                                                                                                                                            |  |  |  |  |
| 15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples? |  |  |  |  |
| 16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?                                                                                                                                        |  |  |  |  |
| 17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?                                                                                                                                                                                     |  |  |  |  |

**D. Anticipated subproject impacts on Indigenous Peoples**

| Subproject component/<br>activity/output | Anticipated positive effect | Anticipated negative effect |
|------------------------------------------|-----------------------------|-----------------------------|
| 1.                                       |                             |                             |
| 2.                                       |                             |                             |
| 3.                                       |                             |                             |
| 4.                                       |                             |                             |
| ...                                      |                             |                             |

### IR/IP Safeguards Screening results

☐ The subproject is classified as Category \_\_ under ADB SPS:

| Land Acquisition and Involuntary Resettlement                                                          | Indigenous Peoples                                                                                     |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>○ Category A</li><li>○ Category B</li><li>○ Category C</li></ul> | <ul style="list-style-type: none"><li>○ Category A</li><li>○ Category B</li><li>○ Category C</li></ul> |

|                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Prepared/Submitted by:                     | Approved by:                               | Noted by:                                  |
| <i>Signature over Printed Name<br/>LBP</i> | <i>Signature over Printed Name<br/>LBP</i> | <i>Signature over Printed Name<br/>LBP</i> |

### ADB Confirmation of Categorization

Based on review of the PGRDF screening checklist and other subproject supporting documents, ADB confirms the subproject category for IR/IP safeguards:

- ☐ **Category A:** The subproject developer may be issued a Conditional Notice to Proceed and is required to complete:
  - Resettlement Plan
  - Indigenous Peoples Plan
- ☐ **Category B:** The subproject developer may be issued a Notice to Proceed for full project application and is required to complete a Resettlement Plan .
- ☐ **Category C:** The subproject developer may be issued a Notice to Proceed for full project application.

Categorization concurred by:

*Signature over Printed Name  
ADB Designation*

## **Appendix 5: Outline of an Environmental Impact Assessment Report (For category A projects)**

This annotated outline is guided by the Safeguard Requirements 1 of ADB SPS (2009) and applies to subprojects of the PGRDF that are screened and categorized as “A” for environment safeguards. The level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. The substantive aspects of this outline will guide the preparation of environmental impact assessment reports, although not necessarily in the order shown. The EIA report for category A projects may complement and refer to the findings from the environmental impact statement (EIS) that was submitted for the processing of the Environmental Compliance Certificate (ECC) as required by the Department of Environment and Natural Resources (DENR) under the Philippine Environmental Impact Statement System (PEISS).

### **A. Executive Summary**

This section describes a concise summary of the project, critical facts, significant findings, key anticipated impacts and proposed mitigation measures. The sections should clearly compliance with ADB SPS and DENR requirements and highlight conclusions and recommendations.

### **A. Policy, Legal, and Administrative Framework**

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

### **B. Description of the Project**

This section describes the project, its major components; 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 includes drawings and maps showing the project's layout and components, project site, and the project's area of influence. The section provides details the geothermal exploration project: location, area, phases, drilling activities, supporting infrastructure, and project schedule. Include maps, site plans, and a description of the project's technical, operational, and decommissioning aspects.

### **C. Description of the Environment (Baseline Data)**

This section describes relevant physical, biological, and socio-economic 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 data. It summarizes existing environmental conditions (land, geology, hydrology, water and air quality, biodiversity, noise, climate) and social context (demographics, land use, livelihoods, health, community infrastructure, cultural heritage). Use data from field surveys, literature, and stakeholder consultations.

### **D. 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, socio-economic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media, and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated

with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

Subproject proposals for the PGRDF should provide particular attention to impacts to protected areas, natural parks and ecologically sensitive areas in the assessment. Other issues for consideration in the EIA are soil runoff particularly on steep ground, cut-and-fill operations that alter slopes, alteration of waterways and drainage systems, water contamination, release of non-condensable gases (NCGs) in geothermal exploration such as carbon dioxide (CO<sub>2</sub>), hydrogen sulphide (H<sub>2</sub>S), methane (CH<sub>4</sub>), and ammonia (NH<sub>3</sub>), discharge of wastes such as mud and cuttings which contain hazardous components, dust, noise, risks to health and safety of workers, seismic hazards, risks to community health and safety, among others. For guidance, outlined below are some of the anticipated major environmental impacts of geothermal exploration activities.

| Activities                    | Anticipated Environmental Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction of access roads  | <ul style="list-style-type: none"> <li>• <b>Habitat loss:</b> Clearing of trees and forest cleared along route, leading to ecosystem fragmentation</li> <li>• <b>Wildlife disturbance:</b> Increased hunting and logging in newly accessible areas</li> <li>• <b>Erosion:</b> Exposed soils may cause landslides, soil runoff and siltation of streams</li> <li>• <b>Noise and dust:</b> Resulting from blasting and movement of heavy equipment</li> <li>• <b>Worker health and safety risks</b></li> <li>• <b>Hazards to community health and safety</b> due to movement of construction vehicles to site</li> </ul> |
| Well pad construction         | <ul style="list-style-type: none"> <li>• <b>Vegetation loss:</b> Clearing of forest</li> <li>• <b>Soil/erosion:</b> Compaction and grading alter drainage; exposed surfaces are prone to erosion.</li> <li>• <b>Worker health and safety risks</b></li> <li>• <b>Generation of solid wastes and hazardous wastes</b></li> <li>• <b>Sanitation issues at construction camps</b></li> <li>• <b>Hazards to community health and safety</b> due to movement of construction vehicles to and from the site, exposure to dust and noise, and peace and order issues due to presence of migrant workers</li> </ul>            |
| Well pad drilling and testing | <ul style="list-style-type: none"> <li>• <b>Water pollution:</b> Drill mud, cuttings and brine may release heavy metals and alter pH and temperature of water</li> <li>• <b>Impact on forest, agriculture and residential areas</b></li> <li>• <b>Air emissions:</b> Diesel exhaust, H<sub>2</sub>S, CO<sub>2</sub>, CH<sub>4</sub> and NH<sub>3</sub></li> <li>• <b>Noise/vibration:</b> Rigs, compressors</li> </ul>                                                                                                                                                                                                 |
| Pad abandonment/ reclamation  | <ul style="list-style-type: none"> <li>• <b>Erosion and scarring:</b> Unreclaimed pads create persistent bare areas that erode and widen disturbance</li> <li>• <b>Subsidence:</b> Abandoned sump or cavities can collapse.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 |

CO<sub>2</sub> = carbon dioxide, CH<sub>4</sub> = methane, H<sub>2</sub>S = hydrogen sulfide, NH<sub>3</sub> = ammonia.

Source: Asian Development Bank.

The borrower will assess the significance of project impacts and risks on biodiversity and natural resources as an integral part of the environmental assessment process. 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, proposed compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity.

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.

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

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

Mitigation measures will be designed to achieve at least no net loss of biodiversity. These 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.

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

- 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.
- The project is not anticipated to lead to a reduction in the population of any recognized endangered or critically endangered species or a loss in area of the habitat concerned such that the persistence of a viable and representative host ecosystem be compromised.

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.

In circumstances where some project activities are located in a legally protected area, the borrower/client will meet the following requirements:

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

The borrower 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 accidents or unintended introduction of such invasive alien species and identify measures to minimize the potential release.

## **E. Analysis of Alternatives**

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

## **F. 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.
- 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.

## **G. 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. It outlines the process for receiving, documenting, and resolving concerns from affected communities or stakeholders, specifying responsible personnel and timelines for resolution, as required by ADB SPS and DENR guidelines.

## **H. Environmental Management Plan (EMP)**

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.
  - c. Provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

- ii) Monitoring:
  - a. Describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits, and definition of thresholds that will signal the need for corrective actions.
  - b. Describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.
- iii) Implementation Arrangements:
  - a. Specifies the implementation schedule showing phasing and coordination with overall project implementation.
  - b. Describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes.
  - c. Estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.
- iv) Performance indicators: describe 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.

## **I. Conclusion and Recommendation**

This section provides the conclusions drawn from the assessment and provides recommendations. It summarizes the overall findings of the EIA, confirm compliance with ADB and DENR requirements, and state recommendations for project implementation and monitoring.

## **J. Annexes**

Include supporting documentation such as maps, baseline data, regulatory permits, consultation records, technical studies, and terms of reference.

## **Appendix 6: Outline of a Resettlement Plan**

A resettlement plan must be developed for all projects that involve involuntary resettlement impacts. The level of detail and scope of the plan should be commensurate with the severity of potential impacts and associated risks. The following outline presents the key elements that guide the preparation of resettlement plans; the actual sequence may be adjusted as appropriate.

### **A. Executive Summary**

The executive summary provides a concise statement covering the project's overall scope, the main survey findings, the entitlements of affected persons, and the recommended actions.

### **B. Project Description**

This section offers a general overview of the project, including a discussion of project components that will lead to land acquisition, involuntary resettlement, or both. It identifies the project area and details the alternatives considered to avoid or minimize resettlement. A table with quantified data is included, along with the rationale for the final decision.

### **D. Scope of Land Acquisition and Resettlement**

- Discusses the potential impacts of the project and provides maps of the areas or zones affected by project components or activities.
- Describes the extent of land acquisition, supported by maps, and explains the necessity for these acquisitions in relation to the main investment project.
- Summarizes overall land acquisition and resettlement impact, including assets to be acquired and the number of displaced persons.
- Provides details about any common property resources that will be acquired.

### **E. Socioeconomic Information and Profile**

This section:

- Describes the methodologies to be used for the social impact assessment, census, inventories of losses, and other studies, presenting information disaggregated by gender, vulnerability, and other social groups;
- Explains the methods for valuing and determining the replacement cost of affected assets and assets to be acquired;
- Defines, identifies and enumerate the people and communities to be affected.
- Describes the likely social, cultural, and economic impacts of land and asset acquisition on affected communities.
- Discusses the effects on poor, indigenous and/or ethnic minority groups, and other vulnerable populations.
- Identifies gender-specific and resettlement impacts, and summarizes the socioeconomic situation, needs, and priorities of women.

### **F. Information Disclosure, Consultation, and Participation**

This section:

- Identifies project stakeholders, particularly primary stakeholders.
- Describes the mechanisms for consultation and participation throughout the different stages of the project cycle.
- Details activities undertaken to disseminate information on the project and resettlement process during project design and preparation for stakeholder engagement.
- Summarizes the results of consultations with affected persons, including host communities, and describes how concerns and recommendations were addressed in the plan.
- Confirms disclosure of the draft resettlement plan to affected persons and outlines arrangements for disclosing any subsequent plans.
- Describes planned information disclosure measures, including the type and method of dissemination, and the process for consultation during project implementation.

## **F. Grievance Redress Mechanisms**

This section describes the mechanisms established to receive and resolve concerns and grievances raised by affected persons. It explains how these procedures are accessible and sensitive to the needs of affected persons, including gender considerations.

## **G. Legal Framework**

This section:

- Describes relevant national and local laws and regulations applicable to the project, identifies any gaps between these and ADB's policy requirements, and outlines how such gaps will be addressed (i.e. project policy).
- Details the legal and policy commitments made by the executing agency for all displaced persons.
- Outlines the principles and methodologies used for determining valuations and establishing compensation rates at replacement cost for assets, incomes, and livelihoods, including eligibility criteria and the timing of compensation and assistance.
- Describes the land acquisition process and sets out a schedule for meeting key procedural requirements.

## **H. Entitlements, Assistance and Benefits**

This section:

- Defines the entitlements and eligibility of displaced persons and describes all the proposed measures for APs, especially resettlement assistance and special measures for vulnerable affected households, including women and other special groups.
- Outlines opportunities for affected persons to receive appropriate development benefits from the project.

## **I. Relocation of Housing and Settlements**

This section:

- Describes options for relocating housing and other structures, such as replacement housing, cash compensation, and/or self-selection, ensuring that gender concerns and support for vulnerable groups are addressed.
- Details alternative relocation sites considered, community consultations conducted, and the rationale for site selection, including location, environmental assessments, and development needs.
- Provides a timetable for site preparation and transfer.
- Identifies the budget requirements and institutional arrangements, including fund source for the identified relocation activities;
- Explains the legal arrangements for regularizing tenure and transferring titles to resettled persons.
- Outlines measures to assist displaced persons during transfer and establishment at new sites.
- Describes plans to provide civic infrastructure.
- Explains how integration with host populations will be managed.

## **J. Income Restoration and Rehabilitation**

This section:

- Identifies livelihood risks and includes disaggregated tables based on demographic data and sources of livelihood.
- Describes income restoration programs, providing multiple options for restoring all types of livelihoods, such as benefit sharing, revenue sharing, or joint stock equity contributions. Discusses sustainability and safety nets.
- Outlines measures for social safety nets, such as social insurance or project-specific funds.
- Describes special support measures for vulnerable groups.
- Explains gender considerations in livelihood restoration.
- Describes training programs for affected persons.

## **K. Resettlement Budget and Financing Plan**

This section:

- Provides an itemized budget for all resettlement activities, including costs for the resettlement unit, staff training, monitoring and evaluation, and the preparation of resettlement plans during loan implementation.
- Describes the flow of funds, with the annual budget outlining scheduled expenditures for key items.
- Justifies all assumptions used in calculating compensation rates and cost estimates, accounting for physical and cost contingencies and replacement costs.
- Provides information on the source of funding for the resettlement plan budget.

## **L. Institutional Arrangements**

This section:

- Describes the responsibilities and mechanisms for implementing the measures outlined in the resettlement plan.
- Includes details of institutional capacity building programs, including technical assistance if needed.
- Describes the roles of NGOs and organizations of affected persons in resettlement planning and management, if applicable.
- Explains how women's groups will be involved in resettlement planning and management.

## **M. Implementation Schedule**

This section presents a detailed, time-bound schedule for all key resettlement and rehabilitation activities. The schedule covers all aspects of resettlement, ensuring synchronization with the overall project construction timeline and providing a timeline for the land acquisition process.

## **N. Monitoring and Reporting**

This section describes the mechanisms and benchmarks appropriate for internal and external monitoring and evaluating the implementation of the resettlement plan. It specifies arrangements for the participation of affected persons in the monitoring process and outlines the procedures for reporting on implementation progress.

## **Appendix 7: Outline of an Indigenous Peoples Plan**

This outline is part of the SPS Safeguard Requirements 3, which requires the development of an Indigenous Peoples Plan (IPP) for all projects that have an impact on Indigenous Peoples. The scope and depth of each IPP should correspond to the significance of the potential project impacts. While this outline provides a comprehensive framework, the actual process for preparing IPPs may follow a different sequence to best suit the specific project context.

### **A. Executive Summary of the Indigenous Peoples Plan**

This section provides a concise summary of the most important facts, key findings, and recommended actions identified in the IPP. It is designed to offer a clear overview for decision-makers and stakeholders, ensuring they can quickly understand the critical points and proposed steps related to Indigenous Peoples in the context of the project.

### **B. Description of the Project**

This section gives a general overview of the project, including its main components and activities. It discusses aspects of the project that may have an impact on Indigenous Peoples and clearly identifies the geographic area where the project will be implemented.

### **C. Social Impact Assessment**

This section includes a thorough assessment of the project's potential impacts on Indigenous Peoples, structured as follows:

- **Legal and Institutional Framework:** Reviews the relevant legal and institutional context regarding Indigenous Peoples as it pertains to the project.
- **Baseline Information:** Provides detailed baseline data on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples communities. It also outlines the lands and territories they have traditionally owned, used, or occupied, as well as the natural resources they rely on.
- **Stakeholder Identification and Consultation:** Identifies key project stakeholders and describes a culturally appropriate and gender-sensitive process for meaningful consultation with Indigenous Peoples at each stage of project preparation and implementation, drawing on the legal framework and baseline information.
- **Impact Assessment:** Assesses, based on meaningful consultation, both the potential adverse and positive effects of the project on Indigenous Peoples. This analysis includes a gender-sensitive review of the vulnerabilities and risks facing the affected communities, considering their specific circumstances, close relationship to land and natural resources, and their relative lack of access to opportunities compared to other groups.
- **Perceptions of Indigenous Peoples:** Presents a gender-sensitive assessment of how affected Indigenous Peoples perceive the project and its likely impact on their social, economic, and cultural status.
- **Action Plan outlining mitigation measures and benefits:** Identifies, through meaningful consultation, measures needed to avoid adverse effects. If avoidance is not possible, the section recommends actions to minimize, mitigate, and/or compensate for such effects and ensure that the Indigenous Peoples receive culturally appropriate benefits under the project.

## **D. Information Disclosure, Consultation and Participation**

This section details the processes used for information disclosure, consultation, and participation with Indigenous Peoples communities during project preparation. It includes:

- A description of how information was disclosed and how consultation and participation took place with the affected communities.
- A summary of the feedback received from Indigenous Peoples during the social impact assessment, highlighting their concerns and how these have influenced project design.
- For project activities that require broad community support, documentation of the consultation processes and outcomes, including any agreements reached regarding project activities and associated safeguard measures.
- An outline of mechanisms for ongoing consultation and participation during project implementation to ensure continuous involvement of Indigenous Peoples.
- Confirmation that both the draft and final versions of the IPP have been disclosed to the affected Indigenous Peoples communities.

## **E. Beneficial Measures**

This section specifies the actions to be taken to ensure that Indigenous Peoples receive social and economic benefits from the project. These measures are designed to be culturally appropriate and gender-responsive to address the specific needs and priorities of Indigenous Peoples.

## **F. Mitigative Measures**

This section outlines the steps to avoid adverse impacts on Indigenous Peoples. Where avoidance is not possible, it specifies the measures to minimize, mitigate, and compensate for unavoidable negative impacts, tailored to each affected Indigenous Peoples group.

## **G. Capacity Building**

This section describes measures to enhance the social, legal, and technical capabilities of both government institutions and Indigenous Peoples organizations in the project area. The aim is to ensure that government bodies can effectively address Indigenous Peoples issues and that Indigenous Peoples organizations are empowered to represent their communities more effectively.

## **H. Grievance Redress Mechanism**

This section details the procedures established to address grievances raised by affected Indigenous Peoples communities. It explains how these procedures are accessible, culturally appropriate, and gender-sensitive, ensuring that all community members can seek redress effectively.

## **I. Monitoring, Reporting and Evaluation**

This section describes the mechanisms and benchmarks that will be used to internal and external monitor and evaluate the implementation of the IPP. It also specifies how affected Indigenous Peoples will participate in the preparation and validation of monitoring and evaluation reports, ensuring transparency and accountability throughout the process.

## Appendix 8: Outline of Stakeholder Engagement Plan

### A. Background / Description

This Stakeholder Engagement Plan (SEP) has been developed to ensure meaningful, inclusive, and ongoing consultation with all affected and interested parties throughout the lifecycle of the geothermal subproject. It reflects the project's commitment to transparency, accountability, and culturally appropriate engagement, as stipulated by the Asian Development Bank (ADB) Safeguard Statement Policy. The SEP aims to foster trust and cooperation between the project and its stakeholders, ensuring that their views and concerns shape project outcomes.

### B. Legal Framework

The SEP is guided by the ADB Safeguard Statement Policy, the Indigenous Peoples Rights Act (IPRA), national and local laws governing public participation and information disclosure, and relevant international best practices. These frameworks ensure the rights of stakeholders, especially Indigenous Peoples and ethnic minorities, are respected and protected throughout project implementation.

### C. Purpose and Parameters of the Stakeholder Engagement Plan

The SEP outlines the processes for identifying, analysing, and engaging stakeholders in a manner that is inclusive, equitable, and responsive. It sets clear parameters for information sharing, consultation, and participation, with the objective of maximising project benefits and minimising adverse impacts, particularly for vulnerable and marginalised groups.

### D. Stakeholder Identification and Analysis

The following groups have been identified as key stakeholders for the geothermal subproject:

- **(i) Local Authorities and Regulators:** Municipal, city, and barangay officials; regulatory agencies such as the NCIP, DENR, and other government bodies responsible for oversight and compliance.
- **(ii) Team/Workers:** Project staff, contractors, and consultants engaged in subproject implementation, including those involved in social preparation and capacity building.
- **(iii) Suppliers of Goods and Services:** Local and regional businesses providing materials, equipment, and services essential for the subproject.
- **(iv) Local Population:** Residents of affected communities, including both direct and indirect beneficiaries of the project.
- **(v) Local Media:** Outlets responsible for disseminating project information and updates to the broader public.
- **(vi) Vulnerable Population:** Indigenous Peoples, ethnic minorities, women, the elderly, and other socially or economically disadvantaged groups.
- **(vii) Civil Society:** Non-governmental organizations (NGOs), advocacy groups, and community-based organizations with an interest in the project's social, environmental, and economic outcomes.

## **E. Stakeholder Engagement Program and Information Disclosure Requirements**

The engagement program will employ a variety of participatory methods, including public meetings, focus group discussions, key informant interviews, and surveys. Information will be disclosed in accessible formats and local languages, ensuring all stakeholders are well-informed of project activities, risks, and mitigation measures. Regular updates will be provided through community notice boards, local media, and digital platforms, with particular attention to the needs of vulnerable groups.

## **F. Stakeholders and Corporate Social Responsibility Program**

The project will collaborate with stakeholders to design and implement corporate social responsibility (CSR) initiatives that address community needs and priorities. These may include livelihood programs, environmental conservation efforts, and support for local infrastructure, with a focus on ensuring equitable participation and benefit-sharing among all groups, especially Indigenous Peoples and other marginalized communities.

## **G. Resources and Responsibilities**

Dedicated resources, including staff and budget, will be allocated to implement the SEP. Roles and responsibilities will be clearly defined, with the Geothermal subproject team, LBP, NCIP, and selected NGOs playing key roles in stakeholder engagement, monitoring, and reporting. Capacity building and training will be provided as needed to ensure effective delivery of SEP activities.

## **H. Monitoring and Reporting**

Monitoring of the SEP will be undertaken through both internal and external mechanisms, including regular progress reviews, field visits, and independent assessments. Key indicators will measure stakeholder participation, satisfaction, and the effectiveness of engagement processes. Quarterly reports will be submitted to the Executing Agency and the ADB, with findings disseminated to stakeholders in an accessible manner.

## **I. Grievance Redress Mechanism and Accountability Mechanism**

At the subproject level, a robust Grievance Redress Mechanism (GRM) will be established to enable stakeholders to raise concerns and seek resolution in a timely, transparent, and culturally appropriate manner. The GRM will provide clear procedures for lodging complaints, tracking their resolution, and escalating issues as necessary, with special measures to ensure accessibility for vulnerable populations. Outcomes and lessons learned from the GRM process will inform ongoing stakeholder engagement and project improvement.

## Appendix 9: Guidelines for Sub project Grievance Redress Mechanism

### General requirements:

The sub-project developer must establish a grievance redress mechanism that promptly, effectively, and in a transparent, discreet, objective, and culturally appropriate manner responds to concerns and grievances. It should be readily accessible to all project-affected persons. The mechanism will (i) be tailored to the project context and findings of the E&S assessment process; (ii) be proportionate to the E&S risks categories (A, B, C) and impacts of the sub project; (iii) be accessible, inclusive, and gender-sensitive; (iv) be accessible at no cost to the complainant; (v) allow for anonymous complaints to be raised and addressed; (vi) utilise existing formal or informal grievance mechanisms, including customary, community, and traditional dispute resolution methods, where these are preferred and acceptable to project-affected persons and feasible for the sub project; (vii) enable full and fair access through additional means for disadvantaged or vulnerable persons; and (viii) not prevent access to the national or local judicial or administrative remedies, or mediation.

- The project developer must ensure that the grievance redress mechanism includes, at minimum, the following aspects:
- **Establishment of Grievance Redress Committee:** The sub-projects/developers must form a grievance redress committee (GRC) in consultation with affected communities, LBP, DOE, and local authorities. The GRC should include representatives from vulnerable groups to ensure inclusivity.
- **Clear Roles and Responsibilities:** Define the committee's duties, such as receiving, documenting, and investigating grievances, and recommending appropriate remedial actions.
- **Accessible Procedures:** Ensure the grievance process is easy to understand and access for all stakeholders, including vulnerable populations. Information about the GRM should be disseminated widely through public meetings and notices.
- **Timely Resolution:** Set realistic timelines for grievance acknowledgement, investigation, and resolution. The SPS recommends resolving complaints within a reasonable timeframe.
- **Confidentiality and Non-Retaliation:** Guarantee confidentiality for complainants and protect them from retaliation or discrimination.
- **Documentation and Monitoring:** Maintain records of grievances, actions taken, and outcomes. Regular monitoring and reporting should be conducted to assess the effectiveness of the GRM and ensure accountability.
- **Appeal Process:** Provide an option for complainants to escalate unresolved issues to higher authorities or to LBP's grievance redress mechanism.
- **Continuous Improvement:** Periodically review the GRM to incorporate feedback and lessons learned, ensuring it remains responsive to community needs.

## **Appendix 10: Outline of Environmental and Social Monitoring Report to be submitted by Developers/Sub-borrowers to LBP**

### **A. Subproject Information**

- i) Location
- ii) Scale/size/capacity
- iii) Subproject impacts
- iv) Reporting period covered by this monitoring report (month-year)
- v) Specification of project stage (design, construction, operation or closure stage)
- vi) Key developments and any major changes in project location and design, if any.

### **B. Relevant Environmental Permits and Compliance Certificates**

- i) Information of permits, dates and validity
- ii) Permit conditions and renewal requirements
- iii) Status of compliance with permit conditions

### **C. Implementation of ESMP**

Provide information on status of ESMP implementation during construction or operation phase, focusing on mitigation measures and monitoring program. Attach copies of environmental monitoring reports submitted to DENR, results of ambient air quality, noise, water quality monitoring results. Specify if standards or thresholds are exceeded, and identify corrective actions implemented or to be implemented.

### **D. Information Disclosure and Consultations**

Provide information on information disclosure and consultations conducted with affected people, local communities, civil society groups, and other stakeholders. Indicate process for consulting with the indigenous peoples (IPs)/indigenous cultural communities (ICCs), if applicable. Cite the approach/methodology of consultations and actions to address concerns and issues raised at consultations.

### **E. Grievance Redress Mechanism**

Provide information on the number, type and status of complaints received and resolved during the reporting period, i.e. date, whereabouts of the complaint, affected person(s) involved, actions taken to resolve grievances. Provide information on outstanding issues from previous reporting period and mitigation measures undertaken to resolve complaints.

### **F. Capacity Building on E&S Safeguards**

- i) Present the training programs carried out to improve E&S management capacity and awareness.
- ii) Identify the number of staff, qualifications, and experience in environmental management.

### **G. Activities for Follow-up**

Identify any information that LBP should be aware of with regards to environmental matters, community issues, positive or negative media or NGO attention. Identify activities and corrective actions, including additional topics that need to be followed up in the next reporting period.

## **Appendix 11: Outline of Annual Environmental and Social Monitoring Report to be Submitted by LBP**

### **A. Introduction and General Information**

- 1. Reporting Period:** (The annual period covered by the report)
- 2. Information on Financial Intermediary:** (Name-LBP, address, and contact details)
- 3. Portfolio Summary:** (Total number of loans, total value, and overview of projects approved under PGRDF. This may be presented in tabular format)
- 4. Overview of E&S Activity:** (Summary of key E&S achievements and challenges in the portfolio during the reporting year)

### **B. ESMS Implementation Performance**

- 1. Status of ESMS:** (Indicate whether there was update or changes on the ESMS, if any)
- 2. E&S Organizational Structure:** (Staff responsible for E&S implementation, trainings organized/attended by staff, and any capacity building activities during the reporting year)
- 3. Screening and Categorization:** (Provide a summary breakdown of E&S due diligence activities conducted on subprojects, E&S risk category.)
- 4. Due Diligence:** (Provide summary of ESA, site visits, and ESCR issued. Also include information on specific E&S loan conditions for subprojects with material E&S issues for follow-up monitoring during loan implementation.)
- 5. Compliance Monitoring:** (Provide information on the status of submission of E&S monitoring reports by developer/borrower, site visits conducted by LBP, key findings)

### **C. Portfolio E&S Performance and Risk Management**

- 1. Subprojects with Significant Issues:** (Identify subprojects with material E&S issues during loan implementation, e.g. non-compliance with national laws and with the ESMS, major accidents, fatalities or serious environmental incidents.)
- 2. Corrective Action Plans (CAP):** (Provide a summary of actions taken for subprojects with non-compliance and status of CAP implementation.)
- 3. Exclusion List Compliance:** (Provide a statement on confirmation that no subproject supported involves the Prohibited Investment Activities.)

### **D. Stakeholder Engagement and Grievance Mechanism**

- 1. Grievance Redress Mechanism (GRM):** (Report on the effectiveness of LBP's internal GRM and any complaints received on PGDRF.)
- 2. Sub-borrower GRMs:** (Provide confirmation on sub-borrowers functioning GRMs.)
- 3. Information Disclosure:** (Provide summary of stakeholder engagement activities and information disclosed.)

### **E. Conclusion and Recommendations**

- Provide overall assessment on whether ESMS is operating as intended, and specific improvements to be implemented in the coming year.

Attachment:

**Summary of Portfolio E&S Monitoring Checklist**

| <b>List of Sub-Loans</b> | <b>Location</b> | <b>E&amp;S Category</b> | <b>E&amp;S Permits &amp; Clearances</b> | <b>Status of E&amp;S Compliance Monitoring</b> | <b>Remarks</b> |
|--------------------------|-----------------|-------------------------|-----------------------------------------|------------------------------------------------|----------------|
| 1.                       |                 |                         |                                         |                                                |                |
| 2.                       |                 |                         |                                         |                                                |                |
| 3.                       |                 |                         |                                         |                                                |                |

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## Appendix 12 Complaint Form (in English and Filipino)

ONLY FOR ENVIRONMENTAL AND SOCIAL CONCERNS  
REGARDING LANDBANK-FUNDED PROJECTS

### LANDBANK OF THE PHILIPPINES COMPLAINT FORM

Supply the requested information. Once accomplished, sign this document and send it to LANDBANK-ENVIRONMENTAL PROGRAM AND MANAGEMENT DEPARTMENT through the avenues specified below. The information you will give will be kept confidential.

#### A. COMPLAINANT INFORMATION (Anonymous complaints will not be entertained)

Complete Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Contact Numbers: \_\_\_\_\_

Email address: \_\_\_\_\_

Organization represented, if any: \_\_\_\_\_

Position in the organization: \_\_\_\_\_

#### B. PROJECT INFORMATION

Project Title: \_\_\_\_\_

Project Location / Address: \_\_\_\_\_

Project Proponent (if known): \_\_\_\_\_

#### C. DETAILS OF THE COMPLAIN

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Attach with this form any material or supporting document regarding the matter that you wish to share with us.

D. Have you used the grievance mechanism of the project to resolve the issue? / Have you made your complaint known to the proponent of the project?

☐ YES

When and how did you raise your concern?

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With whom did you raise your concern?

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What response did you get / actions were made to address your complaint?

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☐ NO

Why not?

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How do you wish to see your issue resolved?

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Signature of the Complainant

Date:

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Please send this form to:

LAND BANK OF THE PHILIPPINES  
Environmental Programs Management Department

27F LANDBANK Plaza 1598 M.H. Del Pilar cor. Dr. J.  
Quintos St., Malate, Manila, Philippines

Email: [epmd@landbank.com](mailto:epmd@landbank.com)