

ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICY OF AEPC

1. Introduction

The Alternative Energy Promotion Centre (AEPC) has brought into effect this Environmental and Social Safeguards (ESS) Policy to ensure AEPC's activities are undertaken in such a way that environmental and social impacts are minimized to the extent possible through appropriate mitigation measures, if it is not possible to avoid them completely. This policy recognizes and ensures that Nepal's Environmental Protection Act and Environment Protection Rules are adhered to wherever applicable.

A key principle of AEPC's ESS Policy is to avoid, reduce and mitigate any harm to the environment and society by incorporating environmental and social concerns as an integral part throughout AEPC's project cycle. This Policy applies throughout the project cycle from design and implementation to monitoring and evaluation. This policy is adopted to ensure environmentally friendly and socially acceptable project execution both at the project design and implementation phases.

2. ESS Policy Statement

Socially accepted and sustainably exploited renewable energy resources are the keys to achieve AEPC's mission "to make renewable energy mainstream resource through increased access, knowledge and adaptability contributing for the improved living conditions of people in Nepal" and shall be built into AEPC's project design and execution framework. AEPC views the integration of ESS to its project cycle as an opportunity which shall be identified during project design, monitored during project implementation and evaluated post implementation.

AEPC supported projects shall ensure the adherence to the ESS Principles set-out in this Policy and put efforts towards: a) the proper identification of the E&S risks, b) avoid, to the extent possible, the ESS issues and where unavoidable, adopt appropriate minimization, mitigation and compensation measures and c) strengthen stakeholder and beneficiary engagement in identifying the issues and devising minimization, mitigation and/or compensation measures. In order to achieve these efforts, AEPC shall strengthen its in-house capacity and the capacity of its project implementation partners.

AEPC shall support projects only if they comply with the Principles set-out in the Policy, all national statutory requirements and the international convention/treaties to which Nepal is a party (if such requirements are relevant to the project under consideration). All the grievances related to the project execution on environmental and social grounds shall be recorded, codified and reported through AEPC's complaints mechanism detailed in the Policy.

3. ESS Policy Principles

AEPC's social and environmental safeguard principles have been developed to align with the International Finance Corporation's (IFC) Performance Standards (2012). While the Principles adopted align with IFC's performance standards they have been modified to suit the needs and scale of AEPC's projects, programs, and activities. AEPC shall work towards achieving the following ESS Policy Principles, Annex-1 highlights the activities AEPC undertakes to operationalize each Principle.

- **ESS Policy Principle 1: Assessment and management of environmental and social risks and impacts.** To ensure project design and implementation are carried out in an environmentally sustainable and socially acceptable manner abiding by the national

statutory requirements and respective international treaties/conventions to which Nepal is a party. Under this principle AEPC will ensure:

- Environmental and social risks and impacts are identified;
 - Mitigation plans are developed to anticipate, avoid; minimize; compensate or offset E&S risks;
 - Stakeholders and affected communities are engaged throughout the project cycle. This includes communications and grievance mechanisms.
- **ESS Policy Principle 2: Biodiversity conservation and sustainable management of living natural resources.** To ensure that the project implementation is carried out in a way that the alteration to the natural environment is avoided to the extent possible. If such alterations are unavoidable, they are decided with consent of the local community affected by such alterations. Under this principle AEPC will ensure:
 - Protection and conservation of biodiversity;
 - Maintenance of benefits from ecosystem services;
 - Promotion of sustainable management of living natural resources;
 - Integration of conservation needs and development priorities.
- **ESS Policy Principle 3: Human Rights.** To ascertain that design and implementation of any project activity will recognize the human right of the people residing in the project area and respect their right to say “no” for exploitation of any natural resources or alteration of any physical resources which they have been using. Under this principle, AEPC will ensure full respect for human rights of all individual as stipulated by the Constitution of Nepal (2015). Efforts will be made to safeguard indigenous peoples, their human rights, dignity, aspirations and livelihoods. The principle also strives to avoid/minimize the adverse impact projects may have on cultural heritage and promotes the equitable sharing of cultural heritage benefits.
- **ESS Policy Principle 4: Labour and working conditions.** To ensure that working conditions are safe and conducive, and the workplace is designed in a way that it doesn't pose any hazard of occupational or community significance and that the practices are adhered to with the Labor Act (1992) of Nepal. This includes the following:
 - Fair treatment, non-discrimination, equal opportunity;
 - Good worker-management relationship;
 - Comply with Nepal's employment and labour laws;
 - Protect workers, in particular those in vulnerable categories;
 - Promote safety and health; and
 - Avoid use of forced labour or child labour.
- **ESS Policy Principle 5: Community Health Safety and Security.** To avoid any adverse impacts to the community from the project operations. This includes the following:
 - Anticipate and avoid adverse impacts on the health and safety of the affected community.
 - Anticipate and avoid the circumstances that lead to increased vulnerability of project affected people.
 - Safeguard personnel and property in accordance with the accepted human right principles recognized by the Constitution of Nepal, 2015.

- **ESS Policy Principle 6: Land acquisition and involuntary resettlement.** To avoid/minimize adverse social and economic impacts from land acquisition or restrictions on land use, including:
 - Avoid/minimize displacement;
 - Provide alternative project designs;
 - Avoid forced eviction.
 - Improve or restore livelihoods and standards of living;
 - Improve living conditions among displaced persons by providing:
 - Adequate housing;
 - Security of tenure.

- **ESS Policy Principle 7: Resource efficiency and pollution prevention.** To promote the conservation of living natural resources and discourage activities entailing environmental pollution including activities those contribute to the GHG emission post-execution of the project.

4. ESS Policy Implementation

AEPC adopts the following operational actions to implement this policy:

- Mainstream ESS Principles in AEPC's activities and operations;
- Develop ESS risk procedures and tools;
- Assign responsibility for implementation of the ESS policy internally;
- Improve public consultation and information disclosure mechanisms;
- Build partnerships to address ESS risks and opportunities; and
- Adopt inclusive and transparent reporting.

An overview of the implementation approach is described below.

4.1 ESS Screening

All projects are screened for ESS risks using the AEPC's Environmental and Social Management Framework (annex 2). This framework allows AEPC to identify, assess and manage E&S issues. Projects assessed shall be categorized as follows from the ESS point of view.

- **Category A** – Projects with the potential to cause significant adverse social and/or environmental impacts that are diverse, irreversible or unprecedented.
- **Category B** – Projects with the potential to cause limited adverse social and/or environmental impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.
- **Category C** – Projects that include activities with minimal or no risks of adverse social and environmental consequences.

Appropriate consultations with internal and external stakeholders will be carried out to ensure risks are adequately identified, assessed and categorized.

Category A projects will not currently be considered for AEPC support (as an implementing or executing agency). As such, if a project is categorized as a Category A project during concept development, work shall be discontinued at that point.

4.2 Roles and Responsibilities

Overall responsibility for implementing this ESS Policy lies with AEPC. AEPC has assigned an Assistant Director Level staff heading the technology division as a focal point to take on the

specific responsibilities related to ESS risk management. The assistant director is assisted by respective managers heading the technical sections to confirm the implementation of the ESS policy across all technologies implemented. Apart from the component managers, assistant director is supported by ESS experts, hired or seconded staffs. ESS experts undertake ESS due diligence to assess the capacity of project developers and represent the Technical Review Committee (TRC) meetings to assess the adequacy of the ESS component in the project design.

4.3 Monitoring, Evaluation, and Reporting

E&S issues will be incorporated into the monitoring, evaluation and reporting of projects and activities, as specified in the AEPC's reporting matrix (see annex 8 of the SOP). Periodic and annual performance reports and end of project closure reports will include information on E&S risk mitigation measures, and this information will be reported to senior management.

4.4 Grievance Mechanism

AEPC's complaint handling mechanism provides people affected by any projects with an accessible, transparent, fair and effective process for raising complaints about environmental or social harms caused by any such project. The Grievance Mechanism applies to complaints received by stakeholders or any person who may experience adverse social or environmental effects of a project undertaken by AEPC or its partners. The process reflects the commitment of AEPC to the highest level of ethical behavior and accountability. AEPC perceives each grievance as an opportunity to properly address concerns raised with respect to a project, and to evaluate and improve the E&S and gender screening process.

Stakeholders can lodge a complaint via AEPC's website (www.aepc.gov.np). Formal complaints can also be forwarded to the grievance desk (grievance@aepc.gov.np), which shall handle as appropriate. Appropriate authority levels as specified in AEPC's governance structure will handle all complaints, in a professional and timely way. For this, the grievance desk categorizes the complaints and disaggregates the E&S related grievances according to the specific technology the grievances are related to. The E&S grievances are then forwarded to the Chief of Technology Promotion Division who will assign a relevant manager of the specific technical component to redress the grievance raised. The technical component manager will be supported by the ESS expert(s) to settle the grievances.

5. Changes to this E&S Safeguards Policy

AEPC will review this ESS Policy periodically to ensure compliance with relevant national and international laws and alignment with requirements of development partners and other funding agencies. The review will also ensure that the overall approach to assessing and managing E&S risk remains relevant and aligns with global best practices and standards.

ANNEX-1: ESS Policy Principles and Operational Actions

SN	ESS Policy Principle	Operational Actions	Applicable IFC PS
1.	<p>ESS Policy Principle 1: Assessment and management of environmental and social risks and impacts. To ensure project design and implementation are carried out in an environmentally sustainable and socially acceptable manner abiding by the national statutory requirements and respective international treaties/conventions to which Nepal is a party.</p>	<ul style="list-style-type: none"> ▪ Identify the scope for project's environmental assessment requirement in accordance with Schedule 1 and Schedule 2 of the Environmental Protection Rules of Nepal. ▪ Use screening and project categorization matrix (Annex-2) to identify ESS risk category (Category-A, Category-B or Category-C) of the project under consideration using. ▪ Perform preliminary stakeholders' consultation meeting to inform them about the project- scope and scale of project, siting of project components, time and costs required to implement project. ▪ Evaluate potential physical, biological and socio-economic impacts of the proposed project including potential human health and safety impacts. ▪ Assess the alternatives to the project to ensure that the proposed project is best alternative considering the environmental and social concerns. ▪ Propose minimization, mitigation and compensation measures appropriately and highlight the costs involved. ▪ Prepare Environmental Management Plan to ensure that the role of implementation of proposed minimization, mitigation and compensation measures are defined. ▪ Communicate the environmental assessment report to the stakeholders through appropriate means and conduct a final stakeholders' meeting to inform them about the environmental impacts identified, mitigation measures proposed and role defined for the implementation of the proposed mitigation measure. 	<p>PS-1: Assessment and Management of Environmental and Social Risks and Impacts.</p>
2.	<p>ESS Policy Principle 2: Biodiversity conservation and sustainable management of living natural resources. To</p>	<ul style="list-style-type: none"> ▪ Strictly avoid conversion/alteration of natural habitats that fall under the legally protected areas, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional 	<p>PS-6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>

	<p>ensure that the project implementation is carried out in a way that the alteration to the natural environment is avoided to the extent possible. If such alterations are unavoidable, they are decided with consent of the local community affected by such alterations.</p>	<p>local communities.</p> <ul style="list-style-type: none"> ▪ If the proposed area doesn't fall under any of the conditions mentioned above, proceed with the project ensuring the receipt of prior consent for the proposed alterations to the natural environment from the resident locals or their recognized representative. ▪ For the purpose of siting of project components, give preference to the lands that are already converted or degraded or are not significant from the biodiversity or agro-biodiversity point of view. ▪ Local residents of the project area are informed well before the project is commissioned regarding the placement of project structures and alterations proposed to the natural environment and developer has received consent for that. 	
3.	<p>ESS Policy Principle 3: Human Rights. To ascertain that design and implementation of any project activity will recognize the human right of the people residing in the project area and respect their right to say "no" for exploitation of any natural resources or alteration of any physical resources which they have been using. Under this principle, AEPC will ensure full respect for indigenous peoples, their human rights, dignity, aspirations and livelihoods. The principle also strives to avoid/minimize the adverse impact projects may have on cultural heritage and promotes the equitable sharing of cultural heritage benefits.</p>	<ul style="list-style-type: none"> ▪ Strictly avoid projects that involve any sort of "livelihood threat" to the local communities reliant on specific natural resource and the specific community is not willing to give up using those resources. ▪ Strictly avoid projects that involve any sort of demolition or relocation of physical resource that holds cultural, historic or ethnic significance and the community using it don't give consent for that. ▪ If the natural or physical resources discussed above are noted, the community shall be informed about the changes expected after project implementation, anticipated impacts and compensation measures. Once the specific community provides consent for that it shall be documented separately as the "Vulnerable Community Development Plan" and the project implementation unit shall acknowledge it separately. 	<p>PS-7: Indigenous Peoples PS-8: Cultural Heritage</p>

4.	<p>ESS Policy Principle 4: Labour and working conditions. To ensure that working conditions are safe and conducive, and the workplace is designed in a way that it doesn't pose any hazard of occupational or community significance.</p>	<ul style="list-style-type: none"> ▪ Ensure ergonomically safe construction works and provide protective gears to the construction workers during work. ▪ Ensure adequacy of basic amenities like safe drinking water, rest-rooms and change rooms. ▪ Employment of staff in a project will ensure the highest level of gender balance to the extent possible. ▪ Ensure there is no discrimination regarding the remuneration of men and women employed for the project in comparable positions. Women are privileged with associated maternity and medical exemptions. ▪ Conduct age verification of the construction worker before employing them for any purpose. 	PS-2: Labor and Working Conditions
5.	<p>ESS Policy Principle 5: Community Health Safety and Security. To avoid any adverse impacts to the community from the project operations.</p>	<ul style="list-style-type: none"> ▪ Human waste from project sites will be contained at site itself and their surface/sub-surface drainage will be prevented. ▪ Construction wastes from project sites will be contained appropriately at site and no leakages to the outside environment are ensured. 	PS-4: Community Health, Safety, and Security
6.	<p>ESS Policy Principle 6: Land acquisition and involuntary resettlement. To avoid/minimize adverse social and economic impacts from land acquisition or restrictions on land use</p>	<ul style="list-style-type: none"> ▪ Strictly avoid projects that involve any involuntary resettlement of the affected families. ▪ Strictly avoid projects that involve any sort of "livelihood threat" due to construction of project structures on the arable land belonging to specific families. ▪ 	PS-5: Land Acquisition and Involuntary Resettlement
7.	<p>ESS Policy Principle 7: Resource efficiency and pollution prevention. To promote the conservation of living natural resources and discourage activities entailing environmental pollution including activities those contribute to the GHG emission post-execution of the project.</p>	<ul style="list-style-type: none"> ▪ Natural living resources will be protected to the extent possible. If not, efforts shall be put to recreate the natural environment. ▪ Preventive actions shall be taken towards pollution. If the preventive measures are not possible, pollution arising from the project site will be contained at the site and treatment will be done, if required. ▪ Strictly avoid any project activity that involves GHG emission post project execution. ▪ Strictly avoid project activity that increased vulnerability of a community to the climate induced disasters. 	PS-3: Resource Efficiency and Pollution Prevention

ANNEX-2: Environment and Social Management Framework

A. Screening and Project Categorization

A.1 Screening

The environmental and social screening has to be carried out for renewable energy technologies which are considered to have environmental and social impacts, but the extent may be minor impacts. Specially, household technologies have negligible negative environmental and social impacts. The purpose of the screening process is to:

- determine whether the proposed RETs are likely to have potential negative environmental and social impacts (Annex 2 checklist);
- to establish the level of environmental/social assessment required (based on Annex 2 checklist and project-risk categorization)
- to help the proponent and users committee understand environmental issues related to the RETs before they are considered for implementation, and
- To assist in AEPC, community, government and other stakeholder's decision-making process.

Taken together AEPC's E&S management framework addresses **Policy Principle 1 (Assessment and management of environmental and social risks and impacts)** of the ESS Policy by initially assessing the risks and then setting standards for managing and mitigating any identified risks throughout the life of a project.

A.2 Categorization

Category A Projects: A proposed project is classified as Category A if it is likely to have potentially significantly adverse environmental impacts. These impacts may affect an area broader than the sites or facilities subject to physical works. An EIA level study shall be required for Category A project. Furthermore, Environment Protection Rules 1997, schedule 2 lists the projects that require undertaking of EIA study. The RETs promoted by AEPC would have very low chance to fall under this category.

From social perspective, sub-projects that will affect more than 50 people due to involuntary land taking and/or physical relocation or losing 10% or more of their productive (income-generating) assets, such projects fall under Category A projects and a full Resettlement Action Plan (RAP) must be prepared.

Category B Projects: Usually the impacts are assessed to be less significant as these are site-specific; and irreversible; and in most cases mitigation measures can be designed and implemented more readily than for Category A projects and subjected to limited EIA. Environment Protection Rules 1997, Schedule 1 lists the possible projects that require undertaking IEE level study.

From social perspective, sub-projects that will affect less than 50 people as a result of physical displacement due to involuntarily land taking or lose less than 10% of their productive (income-generating) assets, such projects fall under Category B and an abbreviated RAP shall be prepared.

Category C Projects: The proposed RET is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further environmental action is required for a Category C projects.

For the projects which fall under Category C, but not fall under threshold criteria of EPR 1997 shall not require undergoing any environmental/social assessments or preparation of respective safeguard documents as per provision of GoN. However, minimal environmental impacts can still be expected from category C projects, it is recommended that a brief environmental and social management plan (ESMP) shall be prepared for RET projects.

B. Safeguard Document to be prepared

The different safeguard documents shall be prepared for individual RET projects in accordance with respective screening category. The safeguard document shall be prepared during detailed design or detailed feasibility study phase. The safeguard documents especially for category B and Category A shall be disclosed to public through AEPC website or respective project website, if available.

Environmental and Social Management Plan (ESMP) for Category C projects: This document shall be prepared for the RET projects falling under category C. The ESMP shall essentially contain description of project and location and baseline environmental and social condition. The ESMP shall also include, inter alia, the following: (i) Alternatives - alternative measures for avoiding, minimizing, controlling adverse impacts (or for enhancing beneficial impacts); (ii) Mitigation -site-specific, cost effective and detailed measures for each impact that will reduce the identified adverse impact to acceptable levels; (iii) Capacity Development and Training/ awareness - specific and targeted training / awareness/ capacity building, if necessary (targeted to, for example, subproject staff, contractors, and community groups); (iv) Implementation Schedule and Cost Estimates - For all mitigation and capacity development. The ESMP must be integrated into the project's plan and design, budget, specifications, cost estimated, bid documents, contract/agreement clauses. The ESMP shall also include the site specific monitoring plan illustrating indicators of monitoring, frequency, time of action and monitoring responsibility.

Initial Environmental Examination (IEE) study Report for Category B projects: RETs under category B projects during environmental screening shall be required to prepare IEE report during detailed design/detailed feasibility study phase. The procedural steps including preparation of Terms of Reference, public notice and public consultation, shall be conducted as per Environment Protection Rules, 1997 while conducting the IEE study and shall be approved by concerned ministry. The report shall be prepared as per Schedule 5 related to Rule 7. In case of donor funded projects having specific environmental requirement, the same shall also be followed.

Environmental Impact Assessment (EIA) study Report for Category A projects: Those RETs which fall under category A during environmental screening shall be required to prepare EIA study report during detailed design/detailed feasibility study phase. The procedural steps including preparation of Scoping Document and Terms of Reference, public notice and public consultation, public hearing, shall be conducted as per Environment Protection Rules, 1997 while conducting the EIA study and shall be approved by Ministry of Population and Environment (MoPE) through concerned ministry. The report shall be prepared as per Schedule 6 related to Rule 7. In case of donor funded projects having specific environmental requirements, the same shall also be followed.

Resettlement Action Plan (RAP) and Abbreviated Resettlement Action Plan (ARAP): During social screening, if the proposed project refers involuntary resettlement and dislocation, RAP (Category A) and ARAP (Category B) document shall be prepared. RAP and ARAP shall essentially consist of information of project affected families/households and project affected people, social impact caused by the project (involuntary land taking and resettlement), its

mitigation measures, entitlement framework, capacity development and skill enhancement measures etc. As specified in AEPC's ESS Policy, AEPC will not, for the time being, undertake projects classified as Category A.

Vulnerable Community Development Plan (VCDP) or Indigenous People Plan (IPP): If the involuntary land acquisition and involuntary resettlement imparts to vulnerable community and/indigenous community, VCDP and/IPP shall be prepared along with RAP or ARAP. Ensure that project engages in free, prior, and informed consultation with the vulnerable community wherever they are affected. The main purpose of preparing specific VCDP in addition to RAP/ARAP is to ensure project benefits are accessible to the vulnerable community living in the project area and to avoid any kind of adverse impact on the vulnerable community to the extent possible and if unavoidable ensure that adverse impacts are minimized and mitigated.

C. Implementation of Safeguard Measures

After preparation and approval of respective safeguard measures against the project category, the commitments and mitigation measures shall actually be implemented during construction and operation phase. The mitigation measures and enhancement measures, if any, shall strictly be implemented by respective responsible authority.

D. Monitoring

The proponent(s) and user committees will be responsible for regular monitoring and reporting of implementation of mitigation measures. The AEPC, from time to time, may conduct monitoring on sample basis. AEPC can appoint third party consultant/individual consultant for periodic monitoring of safeguard implementation.

E. Environmental and Social Screening Checklist

The purpose of screening checklist is to review an initial project concept to identify whether there are likely to be any adverse environmental and social risks or impacts. Screening will identify potential risks and impacts, using AEPC's Principles as a checklist. Based upon the identified potential risks and impacts, the project will be categorized in terms of environmental and social risk and/or impact (A, B, or C – see para x above).

E.1 Environmental Screening Checklist

1. Project Description

SN	Description	Details
1	Name of the project	
2	Address	
3	Technology	
4	Installed capacity	
5	Total land use for project installation	
6	Total project cost	

2. Project Location

2.1 Does the project facilities adjacent to or within the following area?

SN	Location	Yes	No	Remarks
1	Protected Area			
2	Buffer zone of protected area			
3	Community forest			
4	Special area for protecting biodiversity			
5	Private forest			
6	Government forest			
7	Religious forest			
8	Leasehold forest			
9	Cultural heritage site and/or religious site			
10	Unique or aesthetically valuable land or water form			
11	Range of endangered or threatened animals and birds			
12	Wetland			
13	Area used by indigenous peoples			

3. Potential Environmental and Social Impacts

SN	Location	Yes	No	Remarks
Policy Principle 2: Biodiversity conservation and sustainable management of living natural resources				
1	Short-term construction impacts such as soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?			
2	Disturbance of large areas due to material quarrying?			
3	Disposal of large quantities of construction spoils?			
4	Impounding of a long river stretch?			
5	Dryness (less than 50% of dry season mean flow) over a long downstream river stretch?			
6	Construction of permanent access road near or through forests			
7	Clearing of large forested area for ancillary facilities and access road?			
8	Creation of barriers for migratory land animals			
9	Construction of permanent access road near or through forests?			
10	Loss of precious ecological values due to flooding of agricultural/forest areas, and wild lands and wildlife habitat; destruction of fish spawning/breeding and nursery grounds?			
11	Deterioration of downstream water quality due to anoxic water from the reservoir and sediments due to soil erosion?			
12	Loss or destruction of unique or aesthetically valuable land or water forms?			
13	Loss of migratory fish species due to barrier imposed by the dam?			
14	Loss of productive land			
Policy Principle 3: Human Rights.				
1	Disproportionate impacts on the poor, women, children or other vulnerable groups?			
2	Uncontrolled human migration into the area, made possible by access roads and transmission lines?			
3	Could the project lead to adverse impacts on enjoyment of the human rights of the affected population and particularly of marginalized groups?			
4	Have local communities or individuals, given the opportunity, raised concerns regarding the project during the stakeholder engagement process?			
5	Could the project affect livelihood of vulnerable group of people or community?			
6	Could the project affect livelihood of indigenous group of people or community?			

Policy Principle 4: Labour and working conditions				
1	Risks and vulnerabilities related to occupational health and safety during project construction and operation?			
2	Social conflicts if workers from other regions or countries are hired?			
3	Would the project potentially require migrant workers to construct or implement it?			
4	Is there a risk of child exploitation or abuse linked to the project?			
Policy Principle 5: Community Health Safety and Security				
1	Community health and safety risks due to the transport, storage, and use and/or disposal of materials likely to create physical, chemical and biological hazards?			
2	Risks to community safety due to both accidental and natural hazards during project construction, operation and decommissioning			
Policy Principle 6: Land acquisition and involuntary resettlement				
1	Will the project be constructed in private land?			
2	Will the project be constructed in public land?			
3	Will the project be constructed in government land?			
4	Will the project be constructed in leasehold land?			
5	Will the project be constructed in other land?			
6	Will/could the project involve physical relocation of people?			
7	Is it likely that the project will need to acquire land from individuals and households, causing them to experience economic displacement?			
8	Will the project restrict access to natural resources and areas used by Affected Communities resulting in economic displacement?			
Policy Principle 7: Resource efficiency and pollution prevention				
1	Is the project likely to release pollutants?			
2	Will hazardous waste materials be generated by the project?			
3	Will project activities involve GHG emission post-project execution?			

E.2 Determine Risk Rating

Use the risk matrix below to determine the overall “Risk Rating” (severe, high, medium or low)

		Consequence				
		Insignificant	Minor	Moderate	Major	Critical
Likelihood	Almost Certain	Low	Medium	High	Severe	Severe
	Likely	Low	Medium	Medium	High	Severe
	Possible	Low	Low	Medium	High	Severe
	Unlikely	Low	Low	Low	Medium	High
	Rare	Low	Low	Low	Medium	High

SN	What are the potential social and environmental risks (as identified through the screening process)?	What is the likelihood and consequence of the risk before mitigation measures are applied?	What is the significance of the risk? (low, medium or high)?
1			
2			
3			
4			
5			
6			

Project categorization based on the potential risk and impact profile?

Risk Category	Comments
Category A - Projects with the potential to cause significant adverse social and / or environmental impacts that are diverse, irreversible or unprecedented.	
Category B - Projects with the potential to cause limited adverse social and/or environmental impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures	
Category C - Projects that include activities with minimal or no risks of adverse social and environmental consequences	

F. Generic Table of Contents of Environment and Social Management Plan (ESMP)

1. Executive Summary both in English and Nepali
2. Introduction
3. RET description and Relevancy of preparing ESMP
4. Environmental and Social Baseline
5. Environmental and Social Impacts
 - a. Beneficial Impacts
 - i. Construction Phase
 - ii. Operation Phase
 - b. Adverse Impacts
 - i. Construction Phase
 - ii. Operation Phase
6. Mitigation Measures including Alternatives (summarize in matrix Form): shall include respective mitigation measures of impacts, time of action, mitigation cost and responsibility. These, inter alia, include (i) Alternatives - alternative measures for avoiding, minimizing, controlling adverse impacts (or for enhancing beneficial impacts); (ii) Mitigation -site-specific, cost effective and detailed measures for each impact that will reduce the identified adverse impact to acceptable levels; (iii) Capacity Development and Training/ awareness - specific and targeted training / awareness/ capacity building, if necessary (targeted to, for example, project staff, contractors, and community groups); (iv) Implementation Schedule and Cost Estimates - For all mitigation and capacity development, the ESMP provides (a) an implementation schedule for measures that must be carried as a part of the subproject, and (b) cost estimates for implementing the ESMP.
7. Monitoring Plan (In matrix Form): shall prescribe monitoring plan with indicators, methods (laboratory test, visual observation, interview etc.), frequency and time of action, location, responsibility and monitoring cost.
8. Conclusions and Recommendations

Salient Features of RETs promoted by AEPC

Technology	Capacity Range	Tentative Total Cost (NRs)	Construction Period	Environment safeguard	Social safeguard
Community Electrification (CE)					
Pico Hydro and Improved Water Mills	less than 1 kW for pico and upto 5 kW for IWM			Not Required	Not Required
Micro hydro	(1kW to 100 kW)	500000 per kW	8 -12 months	Screening, At least ESMP	Screening
Mini-hydro	(100 kW to 1 MW)	500000 per kW	14 - 18 months	IEE according to ADB Safeguard Policy Statement	Not required
Biomass Subcomponent					
Household Improved Cook	Domestic range	1,000 to 25,000		Not required	Not required

Technology	Capacity Range	Tentative Total Cost (NRs)	Construction Period	Environment safeguard	Social safeguard
stoves (ICS) including metallic ICS, Rocket Stoves and Gasifier Stoves					
Institutional ICS				Not required	Not required
Biomass Electrification		500000/kW	5 – 6 months	Screening, At least ESMP	Screening
Solar Subcomponent					
Domestic Solar PV	(upto 100 kWp)	10,000 to 25,000		Not required	Not required
Urban Solar PV	(greater than 200 kWp)	50,000 to 200,000		Not required	Not required
Household Solar Dryer and Cooker				Not required	Not required
Institutional solar (ISPS)		greater than 3 million		Screening, At least ESMP	Screening
Solar Water Supply Scheme and Solar Irrigation System				Screening, At least ESMP	Screening
Municipal Solar Street Lighting				Screening, At least ESMP	Screening
Institutional Solar Dryer and Solar cooker	greater than 3 sq. ft (dryer)			Not required	Not required
Institutional Solar Water Heating System				Screening, At least ESMP	Screening
Solar Mini-grid	Up to 100 kWp	600000/Wp	2 -3 months	IEE according to ADB Safeguard Policy Statement	Not required
Wind Energy					
Wind Energy	upto 100 kW			Screening, At least ESMP	Screening
Solar Wind Hybrid	5 to 100 kW	600000/Wp	2- 3 months	IEE according to ADB Safeguard Policy Statement	Not required
Biogas Technology					
Domestic Biogas and Urban Biogas	upto 12m ³	less than 100,000	1 month	Not required	Not required
Institutional and Community Biogas	greater than 12.5m ³ size	greater than 200,000	greater than 2 months	Screening, At least ESMP	Screening
Commercial Biogas	greater than 12.5m ³	greater than 200,000	greater than 2 months	Screening, At least ESMP	Screening
Municipal Solid Waste (MSW) Biogas Plants	greater than 12.5m ³	greater than 10 million	greater than 6 months	IEE (Category B projects) as per SREP EMF	Screening, may require Abbreviated RAP and/or VCDP as per SMF