Empowered lives.
Resilient nations.

Annex 10: Draft Environmental and Social Management Framework (ESMF)

For ten (UNDP-supported) National child projects under the GEF Africa Minigrids Program (AMP):

Country	UNDP ID	GEF ID
Somalia	6328	10413
Djibouti	6327	10413
Comoros	6469	10413
Eswatini	6432	10413
Ethiopia	6338	10413
Burkina Faso	6510	10413
Malawi	6512	10413
Nigeria	6484	10413
Madagascar	XXXX	N/A
Sudan	6321	10413

Public Consultation/Disclosure Notice

Date: **XXXX**

The United Nations Development Programme (UNDP) is requesting feedback on the attached draft Environmental and Social Management Framework and associated Social and Environmental Screening Procedures for this project.

Comments and questions can be sent to the following address:

United Nations Development Programme

Physical Address:

Tel:

Fax:

Email:

Website:

The last date for receiving of comments is XXXX

Contents

Tables

Acronyms

SEP:	Stakeholder Engagement Plan
SES:	Social and Environmental Standards
SESA:	Social and Environmental Strategic Assessment
SESP:	Social and Environmental Screening Procedure
A&M:	Assessment and management
AMP:	Africa Minigrids Program
PIF:	Project Identification Form
M&E:	Monitoring and evaluation
E&S:	Environmental and social
PPG:	Project preparation phase
FPIC:	Free, Prior and Informed Consent
IP:	Indigenous peoples
IPP:	Indigenous peoples plan
LMP:	Labour Management Procedures
PAI:	Project's area of influence
PV:	Photovoltaic
PFD:	GEF-7 Program Framework Document
BF:	Burkina Faso
CO:	Comoros
DJ:	Djibouti
ES:	Eswatini
ET:	Ethiopia
MW:	Malawi
NI:	Nigeria
SO:	Somalia
H:	High
S:	Substantial
M:	Moderate
L:	Low

SECTION I - Executive Summary

This Environmental and Social Management Framework (ESMF) covers ten UNDP-supported national projects, which are part of the Africa Minigrids Program (AMP), a technical assistance program for minigrids, developed by UNDP with initial funding from the Global Environment Facility (GEF). The primary form of country participation in AMP is as national projects and the program is initially supporting two rounds of national projects, totaling 18 in number.

This ESMF was prepared by UNDP during the design phase of the first round of national projects and covers ten out of the eleven first round projects under AMP. **The countries covered by this Framework are Burkina Faso, Comoros, Djibouti, Ethiopia, Eswatini, Malawi, Nigeria, Somalia, Sudan and Madagascar.**

Therefore, there is one first round AMP child projects (Angola) that does not fall under the scope of this UNDP-developed Combined AMP ESMF (because it is not a UNDP-supported).

The AMP's objective is to increase access to electricity by improving the financial viability and promoting scaled-up commercial investment in renewable energy minigrids ('minigrids'). The objective of each national child project (hereafter, the "project") is to provide technical support to improve energy access in rural areas through the introduction of renewable technologies. Each project consists of specific components to be implemented over the course of a 4-year period as described in the project documents.

The objective of the ESMF is to ensure compliance of relevant policies, **including UNDP's Social and Environmental Standards (SES)**, and to direct the project personnel and stakeholders during the implementation of the project in tackling the social and environmental concerns identified. Among those, the ESMF aims to manage the Environmental & Social (E&S) impacts through appropriate mitigation measures that may arise with the implementation of the project providing specific guidance to be followed consistently with the existing policies at the local, national and international level and the UNDP.

The present ESMF is organized into ten sections:

- Section I concisely described the executive summary.
- Section II describes the project scope and coverage, and objectives of the ESMF in relation to the project preparation phase.
- Section III identifies the potential social and environmental impacts due to the project activities and the methodology used.
- Section IV analyses the legal and institutional framework relevant to the safeguards.
- Section V describes the (SESP) procedures used for screening, assessment and management of environmental and social risks identified.
- Section VI describes the stakeholder engagement, disclosure process, access to the grievance mechanisms and Accountability Mechanism.
- Section VII describes the grievance redress mechanism to be provided during the project.
- Section VIII provides an overview of institutional arrangements and capacity building, including the assignment of roles and responsibilities along the project cycle.

- Section IX establishes the monitoring and evaluation arrangements
- Section X presents the action plan and budget for ESMF implementation.

The main sections of the ESMF are complemented by several Attachments that provide project/country-level details and other relevant information.

Conclusions at the project preparation phase are based on the study undertaken by the E&S expert in coordination to the national consultant and the rest of team members through the following:

- Site visits
- Stakeholder interviews.
- Consensus with UNDP on the scale of the assessment to be undertaken during project design.
- Review of the previous work conducted at the Project Identification Form (PIF) stage
- Online research
- Review of existing relevant documentation.
- Expert knowledge of the team members

.

The Framework covers the full project cycle, from initiation to closure. The cycle stages are design and planning, including site selection; construction; operation and maintenance; and decommissioning.

This ESMF identifies the steps that will be followed for each project for avoiding, and where avoidance is not possible, reducing, mitigating, and managing adverse impacts (as justified based on results of the procedures). As noted below, each project has been categorized as Substantial risk. The measures outlined in this ESMF reflect the UNDP SES requirements for that categorization:

Country	Project Risk Categorization
Burkina Faso	Substantial
Comoros	Substantial
Djibouti	Substantial
Eswatini	Substantial
Ethiopia	Substantial
Malawi	Substantial
Nigeria	Substantial
Somalia	Substantial
Sudan	Substantial
Madagascar	Substantial

The final sites and arrangements serving the purpose and the specific activities to be implemented will be committed to during project implementation when detailed information of the sites are received. Therefore, this document provides the requirements to be followed in the future around the E&S assessments.

SECTION II - Project description and ESMF purpose

This section aims at describing the proposed project(s) and its(their) social and environmental context. Additionally, it summarizes project components, including typology of the future activities, policies, and/or regulations to be supported by the project(s).

Project Context – Introduction to the Africa Minigrids Program (AMP)

The Africa Minigrids Program (AMP) is a technical assistance program for minigrids, developed by UNDP with initial funding from the Global Environment Facility (GEF), and executed in partnership with the African Development Bank (AfDB) and Rocky Mountain Institute (RMI).

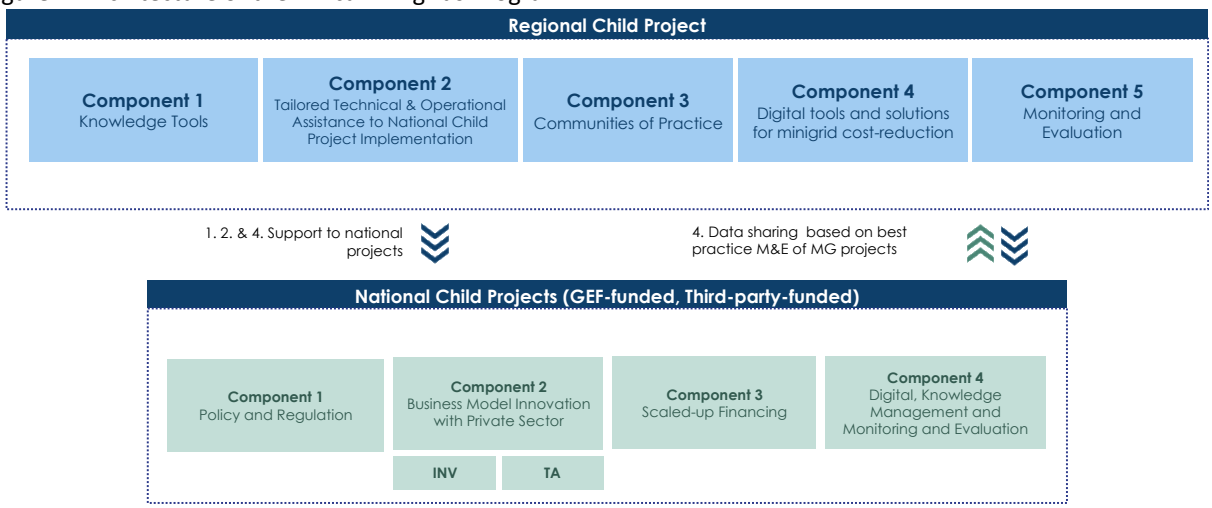
Program Objective: The program's objective is to increase access to electricity by improving the financial viability and promoting scaled-up commercial investment in renewable energy minigrids ('minigrids').

The programmatic approach aims to achieve greater impact by creating new minigrid markets across the continent, which, in aggregate, will create scale and momentum, attracting private sector interest and investment. The programmatic approach will also allow for a broader sharing of good practice, and create economies of scale in providing program services.

Program Design: The program architecture, as shown in Figure 1 below, has two main elements:

- A cohort of **National Projects**, each with a set of tailored activities structured across four components: (i) policy and regulations, (ii) business model innovation and private sector, (iii) scaled-up financing and (iv) digital, knowledge management, and monitoring and evaluation (M&E).
- A **Regional Project**, acting as the knowledge, advocacy and coordinating platform of the Africa Minigrids Program. The regional project is structured across five components: (i) knowledge tools for both public and private actors; (ii) tailored technical and operational assistance to countries; (iii) communities of practice, (iv) digitalization for minigrid cost-reduction, and (v) M&E.

Figure 1: Architecture of the Africa Minigrids Program



Country Participation: The primary form of country participation in the program will be as national projects. The program is initially supporting two rounds of national projects, totaling 18 in number:

- A first round of 11 national projects approved at the concept stage in the GEF December 2019 work programme. These 11 countries are: Angola, Burkina Faso, Comoros, Djibouti, Ethiopia, Eswatini, Madagascar, Malawi, Nigeria, Somalia and Sudan.
- A second round of 7 national projects approved at the concept stage in the GEF June 2021 work programme. These 7 countries are Benin, Chad, Niger, Mali, Mauritania, Sao Tome & Principe, and Zambia.

The initial 18 AMP national projects can be grouped into two categories depending on the funding source.

- 14 '**GEF-funded**' national projects: national child projects directly receiving GEF STAR financial resources. Project documentation required to prepare and approve the 'GEF-funded' national projects includes: (i) a full Project Document and all its annexes, **including an Environmental and Social Management Framework (ESMF)**, meeting the UNDP requirements; and (ii) a CEO Endorsement Request or CEO Approval Request document (as applicable) and all its annexes meeting GEF requirements.
- 4 '**third-party-funded**' national projects: national projects not directly receiving GEF STAR financial resources, and instead funded by other sources, including UNDP and AfDB financial resources. The 4 'Third-party funded' countries are Angola (AfDB), Madagascar (UNDP, AfDB) in the first round, and Chad (UNDP) and Mauritania (UNDP) in the second round. Project documentation required to prepare and approve the 'Third-party funded' national projects includes only a full Project Document and all its annexes, **including an Environmental and Social Management Framework (ESMF)**, meeting the UNDP requirements.

In line with the programmatic approach described above, a **Combined Environmental and Social Management Framework (ESMF) document** has been prepared during the project preparation phase[1] for the first round of AMP national projects. This combined ESMF covers ten out of the eleven first round national projects. Namely, Burkina Faso, Comoros, Djibouti, Ethiopia, Eswatini, Malawi, Nigeria, Somalia, Sudan and Madagascar.

ESMF scope

This Environmental and Social Management Framework (ESMF) covers ten UNDP-supported projects, out of the eleven national projects under the GEF-7 Africa Mini-grids Program (AMP) first round. This ESMF only covers the ten child projects being supported by UNDP as GEF Agency. Those countries included in this Framework are Burkina Faso, Comoros, Djibouti, Ethiopia, Eswatini, Malawi, Nigeria, Somalia, Sudan[2] and Madagascar. These projects are required to adhere to the UNDP SES policy.

[1] The project preparation phase for the first round of AMP national projects has already been completed resulting in the preparation of several Project Documents which have been submitted to GEF as of July 30, 2021 and are expected to be approved by UNDP and/or GEF by December 19, 2021.

[2] There is additional and specific content for the Sudan national project that has not yet been included in this ESMF as of September 30, 2021, but will be added prior to the ESMF and Project Document signature.

One third-party-funded national project in the AMP first round, namely the Angola national project, does not fall under the scope of this UNDP-developed ESMF because it is not a UNDP-supported project. That is, UNDP is not the GEF Agency for the Angola AMP national project. The GEF Agency for Angola's project is responsible and accountable for compliance with their own standards.

This ESMF is based on the SESPs and the specific characteristics of each project understanding that implementation will take place as described in the UNDP Project Documents. The specific character of each project is described in Attachment I of this ESMF document. For more information, a summary of project components, outcomes, outputs and activities is provided in the respective Project Document (Section V).

Project description

The social and environmental objectives of the AMP (and all national child projects under this ESMF) are:

- Promote energy access through renewable technology systems;
- Strengthen the enabling conditions, including legal frameworks, institutional arrangements, and institutional and individual capacities, required for transition to mini-grid systems based on clean energies;
- Promote sustainable livelihoods and management practices in relation to people and the environment;
- Increase climate resilience and adaptive capacity of communities; and
- Strengthen knowledge, information management, and monitoring systems on people and the environment, and the value of the AMP in the country.

Attachment I of this ESMF contains detailed descriptions of each of the ten projects under this ESMF; please see that section for more information.

Purpose and objectives of the ESMF

The purpose of the ESMF is to identify the likely environmental and social impacts, propose suitable mitigation measures and implementation of these measures. This ESMF is required to ensure compliance with the UNDP, the national government, and those of the participating donors and stakeholders.

Specifically, the ESMF:

- Evaluates the project's potential environmental risks and impacts in its area of influence; examines project alternatives;
- Identifies ways of improving project siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and
- Includes the process of mitigating and managing adverse environmental impacts

throughout project implementation.

The ESMF takes into account all relevant Programming Principles and Project-level Standards in the UNDP SES.

All the major E&S impacts along with mitigation and management measures have been compiled in the form of this ESMF. The ESMF will be applicable for the whole project implementation period, until/unless replaced by the measures in the subsequent management plans.

The study comprises the full project cycle, from initiation to closure, taking into account that the environmental and social studies to be developed will take over this ESMF along such cycle. The cycle stages are design and planning, including site selection; construction; operation and maintenance; and decommissioning.

SECTION III - Potential social and environmental impacts

This section provides a description of the potential social and environmental risks and impacts, both positive and negative, related to typology of likely activities, sub-projects, policies, and/or regulations to be supported during project implementation. This includes a summary of the SESP findings, with discussion of the risks and impacts covered by the ESMF.

The identification of key activities that may not proceed until they are screened and assessed, and appropriate management measures are in place are identified under the exclusion and special lists for eligibility in this ESMF.

Methodology used for identification of potential impacts

The ESMF has been prepared in accordance with applicable UNDP safeguard policies and is based on different techniques embracing mainly literature review on similar projects in the region, consultation with the identified stakeholders at the design phase and professional knowledge including the expert consultants involved in the Project Document preparation.

During project development, each project was individually reviewed with UNDP's SESP. This analysis identified a range of potential social and environmental impacts associated with the projects' activities.

Each project is scrutinized as to its type, location, scale, sensitivity and the magnitude of its potential social and environmental impacts. All project activities are screened, including planning support, policy advice, and capacity-building, and site-specific, physical interventions. Activities that will be completed under project co-financing are also included in the scope of this screening.

While the initial targeted sites/beneficiaries for the mini-grids have been identified for most countries and a menu of intentioned arrangements has been developed through the design phase of the project, the final sites and arrangements serving the purpose and the specific activities to be implemented will be committed to during project implementation when detailed information of the sites are received. Therefore, this document provides the requirements to be followed in the future around the E&S assessments. As a consequence, at a future stage when all variables are known, a series of activity-specific E&S measures will have to be conducted to identify suitable mitigation measures with the support of the key stakeholders. These will continue to be budgeted and included in the design for their implementation to the whole project cycle. Note that all sub-projects with valid environmental and social safeguards will have to follow and align the requirements of this ESMF.

Below is the detailed list of expected positive and negative impacts expected from the project. An in-depth assessment is contained in Section V of this document.

Expected positive impacts

Depending on the option chosen among the mini-grid technologies and other features, the following positive environmental effects will be achieved through the implementation of the project applying the best practices and measures established at the project preparation phase. In consequence, as the sub-projects considered are associated with one or more activities described above, independent assessments will be needed on this regard at the implementation phase:

- Development of economic activities and job creation due to the development of the energy sector. This is particularly relevant for the project activities dedicated to productive energy (versus household).
- Women empowerment by project design.
- Reducing the rural exodus due to the creation of new economic activities and related facilities. This is particularly relevant for the project activities dedicated to productive energy (versus household).
- When the project mini-grid (based on renewable energy) will replace the existing diesel mini-grid, the positive impacts expected are as follows:
    - The installation of mini-grids based on renewable energy will reduce the consumption of fuel and greenhouse gas (GHG) emissions in the atmosphere because it will replace in some cases the existing mini-grids based on diesel.
    - Pollution and noise from diesel generators will be greatly reduced. This will preserve the tranquility of the residents and natural life of its sites where the mini-power plants will be installed.
- When the project mini-grid will power public spaces/services, the positive impacts expected are as follows:
    - Increase community, in particular women, safety/heath conditions. For example, with available electricity in community health centers, schools, collective-social facilities, street lighting…
- When the project replaces other fuels in the household for the basic tasks (i.e. cooking and lighting), the positive impacts expected are as follows:
    - Reduction on the consumption of fuel and greenhouse gas (GHG) emissions in the atmosphere because it will replace the use of traditional/readily available fuels (i.e. wood/charcoal/kerosene/paraffin and other fossil based fuels).
    - Improvement of family (and in particular women and children) indoor air quality due to a reduction to smoke exposure in a closed space and associated illnesses.
    - Improve dangerous conditions of cooking and lighting fuels, this affects mainly women and children.

Potential negative impacts

Although the ultimate goal of this project is to reduce GHG emissions, a combination of the safeguards challenges at different levels the current scenario which may undermine the goals of the project if the

appropriate measures are not taken during the project cycle.

All child projects in this ESMF pose a range of potentially negative social and environmental impacts. Amongst others, this includes potential damage to ecosystems/biodiversity; potential economic or physical displacement; potential harm to cultural heritage; and potential impacts to indigenous peoples.

In the national environmental, social and economic contexts, large and medium infrastructures projects of similar purpose can have significant cumulative impacts. However from the analysis of the baseline and implementation readiness for mini-grids implementation, there are clear indications that the cumulative impacts resulting from the increased number of mini-grid plants shall be negligible in the near future due to the scale of the plants and the stand-alone characteristics, while the negative socio-economic impacts of not conducting any investment on the sector shall be considerable taking into consideration the current region's economies characterized by poor energy access/management practices and poor infrastructure development.

A summary of the main risks for each child project in this ESMF is found in Attachment IV. The overall risk categorizations are as follows:

High Risk

Defined by UNDP's SES as "Projects that include activities with potential significant and/or irreversible adverse social and environmental risks and impacts, or which raise significant concerns among potentially affected communities and individuals as expressed during the stakeholder engagement process."

No "high" risk categorization is envisaged for any child projects.

Substantial Risk

Defined by UNDP's SES as "Projects that include activities with potential adverse social and environmental risks and impacts that are more varied or complex than those of Moderate Risk projects but remain limited in scale and are of lesser magnitude than those of High Risk projects (e.g. reversible, predictable, smaller footprint, less risk of cumulative impacts). Substantial Risk projects may also include those with a varied range of risks rated as "Moderate" that require more extensive assessment and management measures."

Each child project considered in this ESMF has been categorized under the "substantial" risk categorization and their potential negative impacts are summarized in Attachment II and IV.

Moderate Risk

Defined by UNDP's SES as "Projects that include activities with potential adverse social and environmental risks and impacts, that are limited in scale, can be identified with a reasonable degree of certainty, and can be addressed through application of standard best practice, mitigation measures and stakeholder engagement during Project implementation."

No "moderate" risk categorization is envisaged for any child projects.

Low Risk

Defined by UNDP's SES as ": Projects that include activities with minimal or no adverse social or environmental risks and/or impacts. However, the SES Programming Principles and stakeholder engagement requirements still apply to project activities."

No "low" risk categorization is envisaged for any child projects.

SECTION IV - Legal and institutional framework

This section summarizes the legal and institutional framework for the project, including the following:

(a) the country's applicable policy framework (i.e. national laws and regulations) relating to relevant social and environmental issues, including obligations of the country directly applicable to the project under relevant international treaties and agreements;

(b) likely applicable requirements under UNDP's SES, including the Principles and Standards triggered as per the SESP;

(c) other relevant social and environmental standards and/or requirements, including those of any other donors and development partners; and

(d) a gap analysis of the national social and environmental framework(s) and applicable requirements of UNDP's SES (and those of other donors/development partners).

UNDP safeguard policies

All AMP projects covered by this ESMF will comply with UNDP's updated Social and Environmental Standards (SES), which came into effect 1 January 2021. These Standards underpin UNDP's commitment to mainstream social and environmental sustainability in its programs and projects to support sustainable development and are an integral component of UNDP's quality assurance and risk management approach to programming. Through the SES, UNDP meets the requirements of the GEF's Environmental and Social Safeguards Policy.

The objectives of the SES are to:

- Strengthen the social and environmental outcomes of Programs and Projects
- Avoid adverse impacts to people and the environment
- Minimize, mitigate, and manage adverse impacts where avoidance is not possible
- Strengthen UNDP and partner capacities for managing social and environmental risks
- Ensure full and effective stakeholder engagement, including through a mechanism to respond to complaints from project-affected people

In accordance with UNDP SES policy, the Social and Environmental Screening Procedure (SESP) has been applied to each of the projects covered in this ESMF during the project development phase. In accordance with UNDP SES policy, a SES principle or standard is 'triggered' when a potential risk is identified and assessed as having either a "moderate", "substantial" or "high" risk rating based on its probability of occurrence and extent of impact. Risks that are assessed as 'low' do not trigger the related principle or standard.

At the time of writing this document the most advanced guidance available to comply with UNDP environmental and social requirements were the "DRAFT Guidance Note - UNDP Social and Environmental Standards (SES)" dated on 26th February 2016. However, previous to the completion of this document the new "Pre-Launch version: OPG approved in 2019" was released and became effective in January 2021 upon integration in UNDP Programme and Operations Policies and

Procedures (POPP). Therefore, this ESMF has been configurated on the premises of such latest version.

According to these guidelines the UNDP classifies the proposed projects depending on the type, location, sensitivity and scale of the project and the nature and magnitude of its potential E&S impacts. In order to ensure consistency in the categorisation process all proposed projects undertook an E&S screening following the most updated ("Pre-Launch version: OPG approved in 2019") UNDP's Social and Environmental Screening Procedure (SESP). The resulting project level risk category –low, moderate, substantial and high – reflects the depth needed to tackle the project's potential environmental and social risks and adverse impacts.

When screening indicates that a project presents risks associated with specific SES Programming Principles and/or Project-level Standards (e.g. Human Rights, Indigenous Peoples, Pollution Prevention), it is necessary to review the SES to ensure the relevant requirements related to these standards are addressed in the assessment and management process. This project counts with a SES Report conducted at the Project Identification Form (PIF) stage:

The Social and Environmental Risk Screening Checklist conducted at the PIF stage identified a number of potential risks that were scored, assessed and managed with the appropriate measures. See Attachment _IV - PIF_Risks_Summary for further details. Further research and the involvement of expert knowledge led to new findings during the project preparation (PPG) phase, and these show the need to consider other potential risks, as identified in the Screening Checklist (Annex 6 to the ProDoc). Thus, the analysis of these additional risks as well as the review of all previously identified issues have resulted in a more comprehensive context to be considered on future chosen sites/activities.

The review of the pre-SESP lead to the following resulting project risk categorization:

	BF	CO	MW	NI	DJ	ES	SO	ET	MA	SU
Overarching Principle 1: Leave No One Behind	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Programming Principle 2: Human Rights	Moderate	Substantial	Moderate	Moderate	Moderate	Substantial	Substantial	Low	Substantial	Substantial
Programming Principle 3: Gender Equality and Women's Empowerment	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial
Programming Principle 4: Sustainability and Resilience[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Programming Principle 5: Accountability	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Moderate	Moderate
Project- level Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Moderate	Low	Moderate	Moderate
Project- level Standard 2: Climate Change and Disaster Risk	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Project- level Standard 3: Community Health, Safety and Security	Substantial	Substantial	Low	Substantial	Substantial	Moderate	Moderate	Low	Moderate	Substantial
Project- level Standard 4: Cultural Heritage	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Moderate	Low	Moderate	Moderate
Project- level Standard 5: Displacement and Resettlement	Substantial	Substantial	Low	Substantial	Substantial	Substantial	Substantial	Low	Substantial	Substantial
Project- level Standard 6: Indigenous Peoples	Substantial	Moderate	Moderate	Substantial	Moderate	Moderate	Substantial	Moderate	Moderate	Substantial
Project- level Standard 7: Labour and Working Conditions	Substantial	Substantial	Low	Substantial	Substantial	Substantial	Substantial	Low	Substantial	Substantial
Project- level Standard 8: Pollution Prevention and Resource Efficiency	Substantial	Substantial	Low	Moderate	Substantial	Moderate	Substantial	Low	Moderate	Substantial
Number of principles/standards triggered in each category										
High	0	0	0	0	0	0	0	0	0	0
Substantial	6	6	1	5	5	4	6	1	4	7
Moderate	5	5	4	6	6	7	5	2	7	4
Low	0	0	6	0	0	0	0	8	0	0
Overall Project Risk Score[3] (Max score: 100%)[3]	52%	52%	18%	48%	48%	45%	52%	12%	45%	55%
Overall Project Categorization										
Project Risk Level	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial	Substantial

Table 1 - Summary of risks triggered by projects based on screening conducted during project preparation

[3] The Overall Project Risk Score provides a comparative level of risk among Child Projects of the AMP and in regards to the maximum level of risk possible (where the worst scenario is that all Principles and Standards are triggered). Additionally, the Project Risk Score serves to refine further the budget allocated for the safeguards studies and mitigation measures by assigning a different weight to the risks according to their level.

The screenings conducted during project development indicate social and environmental principles and standards triggered across the child projects due to the identified risks in the SESP. Such risks are translated into procedures for each activity as per Attachment VI.

International framework

The list of international initiatives the country has actively participated and ratified are listed. See Attachment_III - Legal_Framework_by_Country.

National framework

The list of national initiatives the country has actively participated and ratified are listed and a summary of the requirements by the Authorities for the project activities is described. See Attachment_III - Legal_Framework_by_Country.

Gaps in policy framework

Further analysis of the legal and policy frameworks that apply to all Child Projects covered in this ESMF will be completed during the implementation of this ESMF (i.e. during the completion of Environmental and Social Impact Assessments (ESIA)s). At this stage, the gaps identified are summarised below:

1) For all Child Projects, the current country framework is not fully aligned with the UNDP SES so cannot be adopted as the only requirement. The social and environmental risks associated with each project will be mitigated through the requirements established in the SESP and this ESMF. In light of this, a gap analysis will be conducted to bring all activities to comply with the UNDP SES based on the risks triggered in the SESP. Country frameworks may be used to address such risks only when they demonstrate an equivalent level of compliance. Similarly, for mini-grid systems considering to join efforts to existing projects, the existing environmental and social studies in place could be used to satisfy the requirements in the SESP/ESMF to address the potential risks if they demonstrate an equivalent level of compliance to the UNDP SES.

2) The foundation for the environmental and social legal framework varies from country to country. However, the general challenge in all countries remains to ensure that social and gender safeguards are underpinned at the same level as environmental safeguards either through additional requirements to strengthen analysis or through the linkage to other appealing social and gender policies at the national framework. There is, likewise, need to increase measures at both central and local level to improve public consultation requirements and ensure ways of integrating them into the decision-making of the activities. For example, through institutionalised communication with the community and public consensus in a way that input is allowed to relevant decisions and in particular public/private agreements.

3) A known common challenge is also with the one linking innovative technology and gender empowerment, due to insufficient law enforcement and public awareness, both in terms of law, management expertise, equipment and/or facilitation. There is a need to emphasise the relevance of training and capacity building among law enforcers and government

officials and to include an enforcement plan to overcome this limitation. In this regard the challenge extends to ensuring preventive monitoring that will be closely supervised by the designated parties.

4) Where the Governments have successfully used economic and social incentives/disincentives as an approach to environmental regulation since years ago, this has provided a basis for payment of fees, levies and charges under the permit and license system. It could be emphasised, however, that the use of incentives/disincentives should go hand in hand with positive discrimination for first-of-its-kind activities and those with sound E&S benefits. For example, as it is the case of renewable energies, mini-grids still show a minor presence in the renewable energy share in the countries. This could be favoured considering the cost that development activities have on the environment and calculating the contribution of the environment sector to the gross domestic product (GDP), among other factors, to alleviate the cost of compliance.

5) The other common challenge for all countries relates to bringing existing systems up to date with established legal requirements. Bringing those systems to comply with such environmental and social standards may be laborious and will require visits of environmental and social experts, compliance schedules and agreed benchmarks intended to achieve gradual compliance to the extent possible.

Altogether this implies a risk to the environmental context and the peoples affected by the project. This is solved with the application of additional requirements which include measures that the project implementing entity needs to comply with in using the system created within this project. The following are the measures to satisfy:

- Establish a supervisory structure varied in stakeholders and roles to support the project implementing entity with responsibilities in respect to the E&S safeguards.
- The regulator staff responsible for monitoring, evaluating and verifying the environmental and social studies from each project concerned:
    - Clearly demonstrates into the criteria for their appointment their skills in the environmental and social issues including experience on dealing with the under-represented).
    - Ensures a 1:1 gender ratio stability of staff involved in the task/team;
- Include independent international expertise in such structure.
- Include an independent observant committee with non-governmental parties to oversee and approve the establishment of the safeguards.
- The regulator teams include at least one social expert.

SECTION V – Required procedures for screening, assessment and management

This section specifies the procedures for reviewing and addressing potential social and environmental risks and impacts of specific project activities, sub-projects, policies, or regulations to be adopted/implemented, including the following:

(a) Screening of social and environmental risks and impacts and determining applicable social and environmental standards and requirements (including UNDP SES). The screening process utilizes UNDP's SESP and develops a specific screening procedure for the forthcoming type of sub-projects/activities.

(b) Appropriate types of social and environmental assessment to address identified potential social and environmental risks and impacts.

(c) Preparing and approving time-bound action plans for avoiding, and where avoidance is not possible, reducing, mitigating, and managing adverse impacts, including development of specific management plans according to applicable policies and regulations, including UNDP's SES (i.e. Environmental and Social Management Plans which would be completed post-assessment). Where likely project activities would involve impacts to indigenous peoples or cause physical or economic displacement, then targeted management frameworks are required (i.e. Indigenous Peoples Planning Framework, Resettlement Planning Framework; see the relevant SES guidance notes).

Since some projects activities are fully specified and others are yet to be defined, the ESMF differentiates between: (i) the need for **social and environmental assessment and management actions** (hereinafter also referred to as "assessment/management" (A&M)) for the well-understood activities, and (ii) **procedures** for the forthcoming but still undefined activities. This has been specified for each step below where a distinctive treatment is needed.

An initial study has been undertaken for the Environmental and Social Assessment and Management during the PPG phase. This included the following:

- Site visits and stakeholder interviews
- Consensus with UNDP on the scale of the assessment to be undertaken during project design
- Review of the previous work conducted at the PIF stage
- Review of the existing relevant documentation

All risks identified in the SESP need to be further assessed and managed as described in this section. Details of this are available in Attachment II- Risks A&M specifications of this ESMF. Likewise, the procedures established here will be concluded before each activity commences.

This chapter is complemented by ESMF Attachment VI, which shows which procedure(s) is required of which Output, for each Child Project by linking each to the corresponding procedures that need to be satisfied before implementation of related activities. As shown there each activity may be subject to satisfying multiple procedures.

The procedures and their criteria described in this ESMF include:

(i) **Procedures for the Overall Project**: applicable to all project activities

(ii) **Procedures for co-financed activities included as project results:** applicable specifically to activities funded by co-financing which contribute to project results either flowing through UNDP accounts (i.e. UNDP TRAC) or flowing directly to the project outside of UNDP accounts (e.g. AfDB, World Bank, private minigrid developers). At the time of writing this document (PPG phase) the activities to be co-financed are still to be determined. Therefore, a conservative approach is considered here and subsequently this procedure will apply to all activities.

(iii) **Procedures to review eligibility lists for funding**: At the time of writing this document (PPG phase) some activities are still to be determined. Therefore, a conservative approach is considered here and subsequently this procedure will apply to all activities.

(iv) **Procedures for upstream activities**: applicable specifically to activities supporting policy and/or sector reforms.

(v) **Procedures for downstream activities**: applicable to physical interventions and on-the-ground activities (e.g. buildings, roads, minigrids) often referred to as "downstream activities")

Procedure for the overall project

Given the wide nature of the considerations within this procedure it will affect all activities.

The Gender Action Plan and Stakeholder Engagement Plan have been taken into consideration under the appropriate procedures.

Coronavirus (COVID-19) Pandemic Response Integration

The evolution of the Coronavirus (COVID-19) global pandemic is already affecting the country, and will therefore affect project, operations and activities in the short and longer terms. In light of this, it is expected that the pandemic will continue to have significant effects on the health&safety, economy, including direct and indirect income, freedom of movement and levels and types rural service provision.

An important risk will be the continued diversion of capacity and other resources from government, partners, civil society and rural communities to the prevention/effects of the pandemic and is likely to change the donor landscape.

Future risks of similar crises include livelihood declining and population migration to rural areas increasing pressure on natural ecosystems and the risk of more contacts between human and wildlife.

The country's limited health services capacity presents also a potentially high risk should the infection rate persist in the country. At the same time, the financial implications of the pandemic will increase the importance of employment opportunities and income for rural communities.

While the pandemic remains a risk, the project must ensure preparedness, including assessing transmission risks during the course of work and potential direct impacts from the pandemic, and develop management plans for COVID-19. Measures may include reducing exposure and transmission by reducing

travel, adhering to safety protocols, increasing remote working practices, and limiting direct project interventions in communities while risks remain high. Additionally, the assessment and management documents to be developed along the project cycle as established in the SESP (i.e. ESMP, SESIA, SESA…) will make operational recommendations regarding the pandemic, including alignment of the project with government guidelines and policies, and review cycles within the Project regarding those recommendations.

Additionally, the project should:

- Align and coordinate with government and civil society actions related to the COVID-19 pandemic where appropriate;
- Assist in communicating official information regarding the pandemic to communities and partners;
- Ensure staff are prepared and trained to carry out their work safely in the project office(s), with partners and communities, including provision of equipment where it can reduce risks, increasing opportunities for remote work where required and ensuring national quarantine and isolation recommendations are adhered to;
- Ensure all community engagement should follow minimum protocols to curtail risk of infection within and between communities and facilitate attendance to consultations in accordance to the local mobility restrictions, including where necessary risk mitigation measures for both project staff and stakeholders (with respect to stakeholders, agencies would need to pay special attention to groups who are typically marginalized such as women and indigenous peoples and local communities and how the advent of the pandemic has maybe made it even more difficult for them to be involved in project design and implementation). The local Stakeholder Engagement Plan will look at how consultations are factoring this in to ensure that these groups can continue to be included;
- Regularly monitor the implementation and effectiveness of measures undertaken by the project.

Due the fluid situation around the pandemic, risks and recommendations will be assessed under the environmental and social studies required along the project at the sub-project level to be appropriate to the local context, and reviewed by the Project Steering Committee on a bi-monthly basis during the pandemic.

Finally, in many cases the COVID-19 crisis can provide opportunities to showcase initiatives with significant potential to help in reducing the risk of emerging infectious diseases for this and future similar crisis, while increasing the resilience of the ecologic and socio-economy systems to weather them. This should be seen as a priority on the selection of targeted activities and beneficiaries (ie. Hospitals, health centers, …) at the project design and sub-project selection.

Those activities that succeed the lists criteria and its requirements as established above can then proceed to check the rest of procedures in this ESMF.

Additional screening:

During implementation, the project will be re-screened with the UNDP SESP:

1. As prescribed by the project's safeguards studies (SESAs, ESIAs, ESMPs…);

2. When determined necessary by the Project Manager (after consideration of the advice from PMU staff with responsibility for safeguards), the Project Board, or UNDP; and/or;
3. When project circumstances change in a substantive or relevant way.

It is worth noting that the present ESMF will need to be revised in case of future project changes and/or chosen sub-projects considering conditions falling out the assumptions presented in this document.

Other procedural requirements:

The following steps complete the sequence of the procedure till completion of the safeguards requirements along the project cycle:

- For co-financed activities NOT included as project results: UNDP is accountable to monitor the risk to realization of co-financing amounts and realization amounts annually in the GEF PIR, at mid-term and at terminal evaluation. Specifically, potential risks associated with co-financing that may affect the Project, including safeguards related risks that fall within the project context or area of influence, will be considered in safeguards due diligence and the project risk register and monitored accordingly. Risk management measures identified will be only those within the control of the UNDP project (e.g. managing reputational risk).
- Information disclosure and stakeholder involvement: addressed in Sections VI and VII of this document.
- Capacity building: addressed in Sections VIII of this document.
- Implementation: addressed in Sections VIII of this document.
- Monitoring and evaluation: addressed in Sections IX of this document.

High Risk Activities list - exceptionality note:

Additionally, the UNDP has developed a list of Social and Environmental High-Risk Activities to gather activities that may pose potential significant and/or irreversible adverse social and environmental risks and impacts and should generally be categorized as High Risk. Potential adverse risks and impacts may arise from projects that are site-specific and involve physical interventions ("downstream" activities) as well as "upstream" activities involving planning, policy and/or sector reform, and capacity building.

According to the analysis conducted in the SESP, upstream and downstream project activities of the Child Projects are expected to lead to adverse social and/or environmental impacts without the establishment of appropriate safeguards.

Specifically, when photovoltaic technology is involved, these are based on solar panels, which comes from the mining industry. Mining is a high-risk sector listed in such list and as per The Policy on Due Diligence and Partnerships with the Private Sector because the occurrences of significant controversies. The project is not possible without the procurement of these. Therefore, they are considered to be within the scope of the project and are associated with high-risk activities in such a list. The small scale of the relevant activities and the indirect nature to the project's connection to mining has been translated to a decrease on the level of risk (SESP "impact" and "likelihood") assigned to these activities. And, this is established to be mitigated in the details in Attachment II - Risks A&M specifications (risk 6)

through the procurement of responsible equipment and materials. Therefore, additional procedures are not needed here.

Procedure to review eligibility lists for funding

Limiting certain types of activities from consideration will likely facilitate social and environmental risk management of subprojects and components. The following lists will be checked for each activity before commencing the pertinent activities.

1) This ***Exclusion list*** designates activities that may not receive project-related financing and classifies proposed sub-projects that do not comply with the eligibility criteria as ineligible. This applies also to third-party initiatives/projects that this child project may join and/or support through any of its components. The project will not finance by any means the activities below listed as they are not aligned with the UNDP values and/or the risk level of the Child Project:

    - Activities that violate the human rights of indigenous peoples.
    - Activities that would involve the construction or rehabilitation of large or complex dams, neither does the project supports any activity related to these.
    - Activities that do not comply with relevant environmental and social national or state regulations.
    - Activities that involve the support of energy crop production for biogas-based power plants.
    - Activities (e.g. involving productive use of the energy) that involve the utilization of genetic[4] resources (e.g. collection and/or harvesting, commercial).
    - Activities (e.g. involving productive use of the energy) that involve the harvesting of natural forests, plantation development, or reforestation.
    - Activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities.

2) ***Concerning activities*** are activities that the project may consider to finance, but any such activities should be considered lower priorities because the associated risks will definitely require additional assessment and management to those established at the time of writing this ESMF during the PPG phase and might result in an increase in the child project's SESP categorization.

    Activities listed here represent those considered under the framework of this ESMF. Therefore, any activities that do not appear on this list should require further study because they are beyond such framework. This applies also to third party projects/initiatives that this Child Project may join and/or support through any of its components:

- Activities involving biogas, given the big amounts of waste involved in the functioning of the biogas plants, this would be considered hazardous waste that requires proper treatment and disposal. (Hazardous waste is any waste that poses substantial or potential threats to public health or the environment.)
- Standalone mini-grids and/or aggregated[5] mini-grids to other systems, renewable or not, (i.e. diesel mini-grids existing at the baseline, support to other renewable mini-grid projects).
- Isolated and/or interconnected mini-grids to the national grid.
- Renewable energy sources originated only from solar, wind, hydro, biomass, biogas, geothermal (single source or mixed).
- Electricity and/or heat generation produced by the project.
- Energy generated is used for residential, commercial, industrial, and/or public purposes.
- Activities that do not need to build access roads or alter water sources.
- Small scale mini-grids, including the total combination of all parts if applicable.
- Activities determined to be High risk (see sub-section below for further details).

3) This ***Preferential list*** designates activities that the project may prioritise among other options. This applies also to existing projects/initiatives that this project may join and/or support through any of the components. The project will prioritise the activities listed below:

- Activities sited on lands where natural habitats have already been converted to other land uses or have low biodiversity value.
- Activities sited on lands that were not converted in anticipation of the project.

Procedure for co-financed activities included as project results

For the purpose of this document, co-finance includes other than monetary contributions. Therefore, any in-kind contribution, i.e. goods or services offered free or at less than the usual charge result in an in-kind contribution. The expenditure made by any person or entity in cooperation, consultation or concert with, or at the request or suggestion of, the AMP.

The following procedure applies to project activities that are co-financed **included as project results.**

Specific considerations for co-financed activities NOT included as project results are included in the Procedure for the Overall Project. Such activities are those that involve additional sources of co-financing from third parties which have been confirmed by letters of co-financing received during the PPG phase, or which could materialize during the project life cycle. These sources represent parallel financing, i.e., funds mobilized by other players (AfDB, WB, etc.) and contributing to the

[5] The term 'aggregation" and "aggregated' used along this ESMF refers to the bundling potential of small activities. The only exceptionality is the use of this term in the risks identified in the SESP for each Child Project to refer to project activities overlayed onto pre-existing (already-constructed) mini-grids systems.

mini-grid sector as a whole, but without a direct contribution to the project. Hence activities funded by these resources are considered as co-financing activities NOT included as project results, funded with resources that DO NOT flow through UNDP accounts.

Given the potential scenarios ahead, activities involving third-party initiatives may affect directly or indirectly to any Component of the project as some are still to be determined. In order to take a conservative approach to face this uncertainty, all activities will be checked to identify if a third-party is involved. Subsequently, for each activity where a third-party is involved, the inventory of its contributions to the AMP will be determined for example through the agreement and/or contributory letter established. Where co-finance is identified, the procedures below will apply according to the criteria described.

Co-financed activities **included as project results** are of two types in the AMP child projects:

A) Co-financing activities included as project results, funded with resources that flow through UNDP accounts

These co-financing activities, mainly composed of UNDP TRAC funds that complement the GEF grant in the project budgets, are considered fully included in the UNDP project. Therefore, it is expected that UNDP will be accountable for compliance with the UNDP Programme and Operations Policies and Procedures and ensuring "adherence" to SES for this kind of co-financed activity. These activities are to be managed in the same manner as all other activities funded with resources that flow through UNDP accounts, i.e. following all other procedures in this chapter (unless otherwise noted). The procedures described in item 'B' (as follows below) do **not** apply to co-financed activities that are funded with resources that flow through UNDP accounts.

B) **Co-financing activities included as project results, funded with resources that DO NOT flow through UNDP accounts**

These co-financing activities have **resources that do not flow through UNDP accounts** but are still **included as project results**[6]. In particular, the mini-grid pilots to be built in the projects will be funded through a CAPEX (partial) subsidy from the project budget (GEF funds and UNDP TRAC), and the remaining of the CAPEX will be funded by third parties (who could be private sector developers, government, etc., this is not defined yet). While the funds from third parties will not flow through UNDP accounts, they will directly contribute to the same minigrid pilots the GEF and UNDP funds are contributing to and will be essential to realizing the project objectives. For all AMP child projects, these are "**co-financing activities included as project results**". The precise sources and amounts of these co-financing activities will only be known at implementation stage. UNDP is accountable to monitor all project results, including results to be delivered by these co-financing activities, to ensure consistency with UNDP and GEF policies and procedures, including social and environmental

[6] There are other sources of co-financing confirmed by letters of co-financing, that represent parallel financing, i.e., funds mobilized by other players (AfDB, WB, etc.) and contributing to the mini-grid sector as a whole, but without a direct contribution to the project. For all AMP child projects, these are "co-financing activities NOT included in project results". These co-financing activities are addressed in this ESMF under the procedural requirements in "Procedure for the overall project".

safeguards policies and requirements (SES).

For these co-financed activities included as project results with resources that do not flow through UNDP accounts, the following procedures will need to be applied **before co-financing activities start**:

1) The co-financing partner's capacities will be assessed through the Partner Capacity Assessment Tool (PCAT) and the co-financing partner will develop a risk management strategy if gaps are identified, for UNDP's approval and subsequent oversight/assurance.
2) The co-financing partner will sign a legal agreement with UNDP or the Implementing Partner to confirm accountabilities, including in particular the following sentence: *"The co-financed activities will be undertaken in full compliance with [co-financing partner's] policies and procedures. However, because the activities are included in the results of the project the [co-financing partner] commits to monitor these activities consistent with the UNDP Project Document. The Project Board and UNDP will also assume an oversight and assurance role to further ensure the project, including the co-financed activities covered by this letter, remains consistent with UNDP policies and procedures. These arrangements will be confirmed through [signature of Project Document OR signature of Responsible Party Agreement with reference to the Project Document]."*.
3) Risks stemming from and/or to co-financed activities – as with risks from/to all other project activities – will be identified and included in the project risk register and monitored accordingly. The risk description will clarify relation to the specific co-financing.
4) Social and environmental risks associated with the co-financed activities will be identified during project design and included in the SESP and relevant safeguard management plans. Relevant safeguards instruments prepared by the co-financing partner will be reviewed by UNDP for consistency with UNDP's SES, during project development and implementation; any gaps will be resolved in discussion with the co-financier.

Once the co-financing activities will have started, risks will be monitored (as per item 3 above) and results achieved through co-financed activities will be monitored and reported in the annual GEF Project Implementation Report (PIR), the independent mid-term review and the independent terminal evaluation.

Procedure for upstream activities

The activities requiring to undertake this procedure are identified in Attachment VI and include mainly activities supporting policy and/or sector reforms. For these activities, a Strategic Environmental and Social Assessment (SESA) will be required. The SESA will be undertaken as indicated in Attachment II. The results of the SESA will be taken into account in the rest of assessment/management, i.e. the ESIA, integrated into the ESMP and to update the project's Gender Action Plan, the Stakeholder Engagement Plan (SEP) and the Indigenous Peoples Plan/Framework if applicable, as determined appropriate.

The scale at which Outputs may be implemented could be national, sector or site level. Only Outputs expected to be implemented at the national scale are requested to satisfy this procedure.

The latest version of the UNDP Social and Environmental Standards (SES), and in particular the SES policy and the UNDP SES Guidance Note on Assessment and Management, will be followed to create the path to conduct a SESA.

The SESA will include but not be limited by the elements in such guidance to install a process that will link with and, where feasible, reinforce other policy appraisal approaches used to shape development policies and plans. This will help ensure that social and environmental considerations are not overlooked at the upstream and high-level. The process will involve the preparation of a concise report that includes the matters identified in Attachment II- Risks A&M specifications and summarizes the main findings and results, including also:

a) SESA stakeholder engagement process
b) Key social and environmental priorities and issues associated with chosen PPP
c) Institutional arrangements for coordinating integration of social and environmental issues into the chosen Public Private Partnership
d) Legal, regulatory, policy, institutional and capacity recommendations to address any identified gaps for managing the social and environmental priorities and implementing applicable social and environmental policies
e) Results of assessment of social and environmental risks/impacts associated with the implementation of PPP
f) Identification of measures (e.g. policies, institutional strengthening, governance reform) to address and manage anticipated adverse social and environmental risks and impacts, including a summary Action Matrix.
g) Where applicable, the ESMF used as framework for managing social and environmental risks during implementation of PPP related activities and/or policies/regulations.
h) No tool is deemed compulsory by the UNDP Standards to maintaining a principled approach that manages risks, ensures the integrity and UNDP's reputation when working with the private sector. In the case of project partners/beneficiaries/procurement from the private sector a specific protocol will be implemented to as part of the selection criteria before collaboration can be settled. The Policy on Due Diligence and Partnerships with the Private Sector, complemented by its Risk Assessment Tool and the Risk Assessment Tool Guidelines, will be conducted to strengthen the risk management capacity of UNDP to work with the partners form the public and private sector, including those in the supply chain of the project.
i) For all provisions to be secured for the project, the Practitioner's Guide to Sustainable Procurement will be followed as a requirement in the procurement process as an integral part of the decision making.

Procedure for downstream activities

Step 1. Individually check selected sites

The activities requiring to undertake this procedure are identified in Attachment VI. These are additional procedures to those undertaken for the downstream because they may imply differentiated risks that need to be distinguished and appropriately checked.

Screening the forthcoming sites for potential risks once they are proposed (so before the sites are

finalized, so that risks can be avoided) is essential to ensuring SES compliance during implementation at the same level as for the activities that were defined at the PPG phase.

Those activities that succeed the requirements in this procedure can then proceed to develop the A&M process in the next step of this procedure.

Selection and screening of sites for pilot minigrids:

For activities related to the implementation of pilot mini-grids, and upon the detailed project plan (the project's 'Minigrid Pilot Plan') for advancing the project's minigrid pilot(s) is developed and cleared by the UNDP, each site will be individually screened by the project team during the site selection process with the SESP template, in order to determine the level of assessment and management measures required. Such screening may reveal the need for additional ESIA(s).

Indigenous Peoples presence on site:

A subset of countries included in this ESMF - Sudan, Nigeria, Ethiopia, Burkina Faso, and Somalia - identified indigenous peoples (IPs) at the PIF phase, and subsequently studied the applicability of Standard 6 during the PPG phase.

The countries included in this ESMF that identified indigenous peoples (IPs) at the PIF phase had an expert to conduct the pertinent IPs studies during the PPG phase. These studies are to be found in their respective Project Document for each Child Project.

Exceptionally, Madagascar required a different approach in light of the findings and criteria used to be in line with the rest of AMP. Although the project did not identify IPs at the PIF stage, changes in the definition of project boundaries since the PIF phase have led to a potential added risk on IPs. Therefore, an IPs analysis has been also conducted at the PPG phase which has raised the need to further study IPs identification at the site level. The IPs analysis can be found as an annex to the respective Project Document.

Thus, where the Standard 6 for indigenous peoples has not been confirmed during the PPG phase (risk identified on indigenous peoples as per the SESP), the applicability of that SES Standard will be determined during implementation as described below in Attachment II- Risks A&M specifications (this includes the implementation of the IPs Screening Questionnaire in Attachment XIII and the SESP in step 1 above). If Standard 6 is confirmed and where community consent is granted for the selection of the given site, then the equivalent of an Indigenous Peoples Plan will be developed (at the site-level or other level, as deemed appropriate) and implemented, along with measures for Free, Prior and Informed Consent (FPIC), as needed for compliance with the SES.

Where Standard 6 has already been confirmed during the PPG phase, the forthcoming IPPFs for the relevant Child Projects will contain the relevant procedures.

<u>Step 2 - Conduct site level environmental and social assessment</u>

The outputs in Attachment VI assigned to the pertinent risks requiring an Environmental and Social Impact Assessment (ESIA) will be undertaken as indicated in Attachment II. Further screening (as noted in the previous step) might also reveal the need for additional ESIA(s).

The latest version of the UNDP Social and Environmental Standards (SES), and in particular the SES policy and the UNDP SES Guidance Note on Assessment and Management, will be followed to create the path to conduct a ESIA.

The output of the ESIA will be an ESIA report. The indicative ESIA Report according to the UNDP Social and Environmental Standards (SES) is outlined in Attachment VIII. The ESIA developed will cover the matters identified in Attachment II.

Each ESIA will be developed and carried out by independent experts in a participatory manner with stakeholders. The ESIA will further identify and assess social and environmental impacts of the project and its area of influence; evaluate alternatives; and design appropriate avoidance, mitigation, management, and monitoring measures.

1. Per the SES, the ESIA will assess project activities at the scale deemed appropriate for compliance with the SES.
2. The ESIA will identify environmental and social sensitive receptors within the activity's area of influence.

   It will address all relevant issues related to the SES Overarching Principles and Project-level Standards, as identified in the project's SESP and any other issues identified in the course of the ESIA.

The results of the ESIA will be taken into account in the rest of assessment/management, i.e. integrated into the ESMP and to update the project's Gender Action Plan, the Stakeholder Engagement Plan (SEP) and the Indigenous Peoples Plan/Framework if applicable, as determined appropriate.

Step 3 - Conduct specific site's Environmental and Social management Plan (ESMP)

An ESMP (or multiple) of the appropriate scope/scale will be developed also based on the SESA(s) and ESIA(s) previously compiled. The document will include but not be limited to the indicative ESMP according to the UNDP Social and Environmental Standards (SES) as outlined in Attachment IX. The idea of the plan is to ensure that there is a detailed strategy tailored at the final activities selected for addressing any negative consequences that may occur due to the adaptation measures or capacity building measures taken as a part of the project. This ESMP will contain SMART indicators as well as a budget for specific activities and/or investments that should be undertaken as a part of the project implementation and will be submitted for approval through public consultation to the project partners, and all comments will be addressed.

Those activities that succeed this step and its requirements as established above can then proceed to satisfy the rest of procedures in this ESMF.

SECTION VI - Stakeholder engagement and information disclosure process

Stakeholder engagement

A stakeholder platform will be established to be representative vertically (i.e. are all the groups affected well represented) and horizontally (i.e. weight of voice within platform), appropriate channels of communication will be provided for each represented group (i.e. in particular for the informal sector that may be illiterate), and will be provided with an active role throughout all phases of the Project (i.e. from the design to commissioning). For that a Stakeholder Engagement Plan for consultation and communication will be prepared and implemented clearly disseminate information and gather feedback in time regarding the needs and priorities of all stakeholders.

Discussions with project stakeholders commenced during the project preparation phase (PPG) of the project at the national level. A list of the stakeholders engaged in these consultations has been Annexed to the Project Documents.

In order to ensure a fair stakeholder process from the safeguards perspective, the requirements from Attachment V will apply for each consultation exercise.

The Stakeholder Engagement Plan, Gender Action Plan; and Indigenous Peoples Plan (if applicable) developed at the PPG phase at the national level will be used as the starting point for each sub-project to be approved as discussions will need to be continued including local communities within sub-projects. Therefore, for each sub-project and before its approval, a tailored set of Plans will be implemented on the local context in a similar process and quality as conducted at the national level and where the ESMF establishes especial requirements these will need to be also satisfied.

The purpose of this additional sub-project plan(s) is to be appropriate and relevant to the local context, gather stakeholder input and feedback into sub-project development and design, and be effective of mitigation measures for example through public consultations. The methods employed at the stakeholder engagement process se must be culturally appropriate, delivered in a timely manner and centrally managed to ensure a consistent and ongoing consultation process. Consultation sessions will include special outreach efforts and be tailored to the need of vulnerable groups, particularly women, so that the process is socially inclusive and a range of stakeholder views and perspectives are adequately represented.

Information disclosure process

UNDP's Information Disclosure Policy establishes a presumption in favor of disclosure whereby information concerning UNDP programmes and operations is made available to the public. The Policy stipulates that general project information and project documents are to be disclosed through the UNDP Transparency Portal. In line with this, the UNDP SES require that stakeholders have access to the project information. This will be ensured at the PPG phase and similarly, at the sub-project level, based on the SES Supplemental Guidance, and Guidance on Publishing Project Information. At the time of writing this document, the UNDP web was updated to reflect what, when, and how in the document published dated in Nov 2020, "Environmental Screenings, Assessments, and Management Plans", Table 3.1.

Where to disclose: Reports and drafts are required to be disclosed through the UNDP Transparency

Portal (para. 12.g). The Policy notes that country specific documentation is available also from the appropriate Regional and Central Bureaux, Country Office websites. Other means of dissemination may need to be considered to be appropriate to all (including marginalized and vulnerable groups), such as posting on websites, public meetings, local councils or organizations, newsprint, television and radio broadcasts/reporting, flyers, local displays, direct mail, SMS, oral presentations, etc. This is important to facilitate access to the information to those less digitalized and/or local stakeholders.

When to disclose: To be disclosed and consulted on prior to implementation of activities that may give rise to potential adverse social and environmental impacts. Activities can only be adopted after the required time period for disclosure has elapsed. Small, local, non-governmental stakeholders may not have been an active part of the decisions yet and/or may need longer to organise themselves, and/or communication may not be that fluent. In order to allow a fair time to all stakeholder, it is recommended to send invitations (including all relevant project information, as requested by the UNPD) 1 month ahead of the validation workshop to allow them that preparation time and touch base with them, gather their inputs and offer them to be their "voice" at the workshop if they prefer and/or cannot attend (which may be the case for most small stakeholders).

Language of disclosure: Information needs to be in a language that is readily understandable and tailored to the target stakeholder group. So, it is probably the case the information from assessments and management plans may need to be translated.

Form of disclosure: It is vital to ensure that appropriate communication forms are devised to reach appropriately marginalized and disadvantaged groups. So important considerations in devising appropriate forms of disclosure are the technical level of people, local languages and dialects, levels of literacy, persons with disabilities, roles of women and men, and local usual methods. The material may need to be presented in a contextual manner, such as:

- The presentation of options with key information and questions designed to solicit feedback
- Non-technical summary that can be understood by many stakeholders in order to facilitate and encourage comments.
- It may be more appropriate to presented by various means (e.g. written, verbal) to be adequate.

What to disclose: Specifically, the SES (SES, Policy Delivery Process, para. 21) stipulates that, among other disclosures specified by UNDP's policies and procedures, UNDP will ensure that the following information be made available:

- Information on a project's purpose, nature and scale, duration, and potential risks and impacts
- Stakeholder engagement plans and summary reports of stakeholder consultations
- Social and environmental screening reports with project documentation
- Draft social and environmental assessments, including any draft management plans
- Final social and environmental assessments and associated management plans

- Any required social and environmental monitoring reports.

Conclusions:

At this PPG phase we cannot ensure that the potential adverse impacts are limited in number, well understood, clearly circumscribed, and can be easily avoided or mitigated. Therefore, the SESP conducted at this same stage establishes the assessment/management actions needed to be sufficient as sub-projects arise. In light of that, a draft summary of this ESMF (including the SESP) will be disclosed at the national level along the consultation process and the final ESMF will need to be approved 2 months ahead of the PTA Technical Clearance deadline. Subsequent local level E&S studies, including the local Stakeholder Engagement Plan, will be submitted following the requirements above with a focus on local engagement when sub-projects arise depending of the level of social and environmental risk associated with each sub-project as well as timing of the social and environmental assessment.

UNDP's Accountability Mechanism

Finally, UNDP's SES recognize that even with strong planning and stakeholder engagement, unanticipated issues can still arise and defines an additional grievance mechanism here. Therefore, the SES are underpinned by an Accountability Mechanism with two key components:

1. A Social and Environmental Compliance Review Unit (SECU) to respond to claims that UNDP is not in compliance with applicable environmental and social policies; and
2. A Stakeholder Response Mechanism (SRM) that ensures individuals, peoples, and communities affected by projects have access to appropriate grievance resolution procedures for hearing and addressing project-related complaints and disputes.

UNDP's Accountability Mechanism is available to all of UNDP's project stakeholders.

The Social and Environmental Compliance Unit (SECU) investigates concerns about non-compliance with UNDP's Social and Environmental Standards and Screening Procedure raised by project-affected stakeholders and recommends measures to address findings of non-compliance.

The Stakeholder Response Mechanism helps project-affected stakeholders, UNDP's partners (governments, NGOs, businesses) and others jointly address grievances or disputes related to the social and/or environmental impacts of UNDP-supported projects.

Further information, including how to submit a request to SECU or SRM, is found on the UNDP website at: http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/

The description of the process, assignment of roles, expected flow and relationships of the different elements composing the stakeholder engagement and disclosure process for the project is detailed in the specific Stakeholder Engagement Plan established for each sub-project. Likewise, it will be adjusted and detailed at the respective E&S studies to be conducted for each potential sub-project to be appropriate at the local level.

SECTION VII - Grievance redress mechanism

The mandate of the GRM will be to:

(i) receive and address any concerns, complaints, notices of emerging conflicts, or grievances (collectively "*Grievance*") alleging actual or potential harm to affected person(s) (the "*Claimant(s)*") arising from Project;

(ii) assist in resolution of Grievances between and among Project Stakeholders; as well as the various government ministries, agencies and commissions, CSOs and NGOs, and others (collectively, the "*Stakeholders*") in the context of the Project;

(iii) Conduct itself at all times in a flexible, collaborative, and transparent manner aimed at problem solving and consensus building.

The functions of the GRM will be to:

(i) Receive, Log and Track all Grievances received;

(ii) Provide regular status updates on Grievances to Claimants, Project Board (PB) members and other relevant Stakeholders, as applicable;

(iii) Engage the PB members, Government institutions and other relevant Stakeholders in Grievance resolution;

(iv) Process and propose solutions and ways forward related to specific Grievances *within a period not to exceed sixty (60) days* from receipt of the Grievance;

(v) Identify growing trends in Grievances and recommend possible measures to avoid the same;

(vi) Receive and service requests for, and suggest the use of, mediation or facilitation;

(vii) Elaborate bi-annual reports, make said reports available to the public, and more generally work to maximize the disclosure of its work (including its reports, findings and outcomes);

(viii) Ensure increased awareness, accessibility, predictability, transparency, legitimacy, and credibility of the GRM process;

(ix) Collaborate with Partner Institutions and other NGOs, CSOs and other entities to conduct outreach initiatives to increase awareness among Stakeholders as to the existence of the GRM and how its services can be accessed;

(x) Ensure continuing education of PB members and their respective institutions about the relevant laws and policies that they will need to be aware of to participate in the development of effective resolutions to Grievances likely to come before the GRM;

(xi) Monitor follow up to Grievance resolutions, as appropriate.

Therefore, in the unlikely case that stakeholders need to show their concerns on UNDP E&S compliance the Compliance Review process serves to respond to such situations. Similar to the stakeholder engagement and disclosure process, the assignment of roles, expected flow and relationships of the different elements composing the Grievance Redress Mechanism for the project will be detailed at the respective E&S studies to be conducted for each potential sub-project to be appropriate at the local level and based as a starting point on the Stakeholder Engagement Plan established at the PPG stage

for the country (see Annex 9 of the ProDoc).

Each project will establish a specific Grievance Redress Mechanism (GRM) at the start of implementation. The full details of these GRMs will be agreed upon during the assessments completed for each project. A sample of the Terms of Reference is outlined in Attachment VII of this document.

Interested stakeholders may raise a grievance at any time to the Project Management Office, the Executing Agency, Implementing Agency (UNDP), or the GEF.

At a local level, due to barriers of language, access to communications, potential issues of discrimination, and perceived issues of safety where protection of the identity of complainants may be required, it is essential to provide a local point of contact for community grievances. This may a local NGO, trusted community members in various locations, trusted person of authority, community association, or other point of contact agreed through consultations with community members, and particularly with indigenous peoples where included in project activities. It is critical that this point of contact understands the need for community complaints to be anonymous where issues of individual or group safety are perceived, and that the point of contact has direct access to the PMU staff. In the case of a complaint where anonymity is requested, the PMU and any resulting grievance process must respect this condition. Those able to access and communicate with national grievance mechanisms will established options in the country of implementation, for example, through the Office of the Ombudsman.

SECTION VIII - Institutional arrangements and capacity building

This section describes the institutional arrangements to implement the ESMF, from the screening of activities, the preparation of their safeguard instruments, and review and clearance of activities through to the monitoring of implementation.

Execution modality

The multiple structural options ahead define the level and form of UNDP responsibilities affecting also the SES. Below are reflected the expectations under each potential scenario:

- -Project implementation under the full NIM modality: UNDP has no role in execution or direct project costs but is fully accountable for project expenditure as the GEF grant will flow through UNDP's accounts. The implementing partner directly engages any responsible parties, handles all procurement and admin support. And, the Project Management Unit sits within the implementing partner.
- Project implementation under assisted NIM modality: UNDP is accountable for the provision of the services required, and their quality and timeliness.

At the time of writing this document the following are the establishments for implementation of the Child Projects:

Country	Execution Modality
Burkina Faso	Full NIM modality
Somalia	Direct implementation modality (DIM)
Djibouti	Full NIM modality
Comoros	Assisted NIM modality
Eswatini	Assisted NIM modality
Malawi	Full NIM modality
Ethiopia	Full NIM modality
Nigeria	Full NIM modality
Sudan	Full NIM modality
Madagascar	Direct implementation modality (DIM)

Table 2 - Execution modality

Institutional arrangements

The institutional structures involved in each project have been defined in the respective Project Document (Section VII on Governance and Management Arrangements), including their roles,

responsibilities of project staff and associated agencies in implementation of project activities.

This ESMF does not cover the roles and responsibilities associated with implementation of the subsequent ESMPs and/or stand-alone management plans; those will be defined in each project's subsequent management plan that is developed in the project inception phase, as required per this ESMF:

Environmental and Social related Tasks	
Scoping Tasks	Responsible party
Review of ESMF	Project Assurance
Clearance and disclose ESMF	Development Partner
Eliminate all activities that are not in line with ESMF	Project Manager
Confirm consultations are adequate	Project Assurance
Screening Tasks	Responsible party
Screen all proposed activities for adverse environmental and social impacts based on scoping exercise with the Social and Environmental Screening	Project Manager
Screening records filed for review	Project Manager
Review screening process	Project Assurance
Activity Preparation and Design Tasks	Responsible party
Conduct studies to inform activity design and environmental and social safeguards as required	Project Support
Design activity in accordance with local, national and international standards, environmental and social -based approaches where relevant	Project Support
Prepare environmental and social related documentation for each subproject, (i.e. TORs, ESIA, ESA, ESMP, SEPD, SRM, GRM, SECU, progress reports) in accordance with ESMF and local, national and international legislation and	Project Support
Approve technical design and environmental and social studies	Project Manager / Permitting Agency
Support review process and documentation	Project Manager / Steering Committee
Disclose draft documents in country	Project Steering Committee
Undertake consultations with stakeholders and affected peoples as required	Project Manager / Steering Committee
Incorporate Permitting Agency feedback and stakeholder feedback into design and environmental and social studies	Project Manager / Support

Review and approval of design and environmental and social studies (i.e. TORs, ESIA, ESA, ESMP, SEPD, SRM, GRM, SECU, progress reports) and update existing	Permitting Agency
Prepare environmental and social safeguards cost estimates	Project Manager
Approve environmental and social safeguards budget	Project Steering Committee
Review safeguards instruments and confirm consultation process was adequate	Project Assurance
Clearance of safeguard instruments	Project Steering Committee
Implementation	Responsible party
Deliver safeguards training where necessary	Project Support
Effective implementation of mitigation measures required in environmental and social studies/documentation	Project Manager / Support
Update safeguard instruments in consultation with affected people when technical specifications are finalized	Project Manager
Establish grievance focal point and address grievances	Project Manager
Disclose final safeguard instruments	Project Manager
Document the implementation of safeguard measures	Project Manager
Periodic supervision of implementation process, safeguards and progress	Project Assurance
Capacity Building	Responsible party
Deliver safeguards training where necessary	Project Manager
Technical support and training workshops	Project Support
Conduct capacity assessment for safeguards compliance	Project Manager
Clear TORs for consultants to ensure outputs meet safeguard requirements	Project Assurance
Monitoring	Responsible party
Monitor indicators including individuals and groups of special attention as established at the ESMF in participatory monitoring and evaluation exercises	Project Support
Supervision and monitoring compliance with safeguards (including ongoing maintenance) and Project Document	Project Assurance
Supervision and monitoring compliance with safeguards (including ongoing maintenance) and Project Document	
Safeguards monitoring oversight	Project Steering Committee / Permitting Agency

Table 3 - E&S project cycle tasks and responsibilities

The roles played within the implementation of the project by major stakeholders are described in the ProDoc. Information provided is based on findings from the project preparation phase.

The Project Board/Steering Committee will have final responsibility for the integration of the management plans into the execution of the project.

The subsequent management plans at the activity level will describe the roles and responsibilities in the implementation of the plans. Those new roles and responsibilities will be assessed and integrated, as appropriate, as part of the participatory decision-making and implementation arrangements of the project.

The roles and responsibilities of project staff and associated agencies in implementation of this ESMF is as follows. This ESMF does not cover the roles and responsibilities associated with implementation of the subsequent ESMPs and/or stand-alone management plans; those will be defined in each project's subsequent management plan that is developed in the project inception phase, as required per this ESMF.

Project Support may be recruited internally within the Project Management Unit or outsourced as a third party depending on the human resources available at the time of execution.

As noted above, the projects' subsequent assessment and management studies for each project will describe the roles and responsibilities in the implementation of those plans. Those new roles and responsibilities will be assessed and integrated, as appropriate, as part of the participatory decision making and implementation proceedings of the project.

Capacity Building

Below the capacity of the project organizational structure for each country, based on their experience identified at the preparation phase for each country:

Country	Implementer partner	Experience implementing UNDP SES
Somalia	UNDP CO in Somalia	Excellent for the implementer partner. However there are no indications of experience implementing the UNDP SES among the rest of the responsible parties within the Project Organizational Structure.
Djibouti	Ministry of Urban Planning, Environment and Tourism (MUET)	One UNDP-GEF6 initiated including similar activities to the AMP but the implemented partner is Ministry of Housing, Urban and Environment (MHUE), which is not part of the Project Organisation Structure of the AMP. The project is delayed so the SES are not implemented yet. UNDP SES implemented for that project are the previous version to current

		applied in the AMP.
Comoros	Assisted NIM with a full UNDP Support to the implemented partner (DGEME - Direction Générale de l'Énergie, des Mines et de l'Eau, i.e., Directorate General for Energy, Mining and Water).	No UNDP similar projects to the AMP were identified applying the SES. However, a UNDP GEF regional waste project including a Child Project in Comoros have been identified but includes no solar minigrid technologies, and one UNDP-GEF6 ID (5484) geothermal project rated as high risk was implemented by the partner Vice-Presidency responsible for Energy – Comoros Geological Authority. This is a different partner to the established in this AMP. Additionally, the authority to implement this AMP has been recently established and re-structured at the Government.
Eswatini	Ministry of Natural Resources and Energy (MNRE)	There are no indications of experience implementing the UNDP SES among the responsible parties within the Project Organizational Structure.
Ethiopia	Ministry of Water, Irrigation and Energy	There are no indications of experience implementing the UNDP SES among the responsible parties within the Project Organizational Structure.
Burkina Faso	Burkina Faso Rural Electrification Agency (ABER)	There are no indications of experience implementing the UNDP SES among the responsible parties within the Project Organizational Structure.
Malawi	Department of Energy Affairs, Ministry of Energy	There are no indications of experience implementing the UNDP SES among the responsible parties within the Project Organizational Structure.
Nigeria	Rural Electrification Agency (REA)	REA plays a shared role on the ongoing implementation of the environmental and social safeguards for the Nigeria Electrification Project (NEP). This initiative involves similar components and activities to the AMP Child Project.
Sudan	Ministry of Energy and Mining	There are no indications of experience implementing the UNDP SES among the responsible parties within the Project Organizational Structure. There may be limited experience of safeguards with other international partners.
Madagascar	UNDP CO in Madagascar	Satisfactory for the implementer partner.

		However UNDP SES implemented in the past are for other projects not similar to this AMP and are the previous version to current applied in the AMP. Furthermore, there are no indications of experience implementing the UNDP SES among the rest of the responsible parties within the Project Organizational Structure.

Table 4 - capacity of the project organizational structure for each country

To mitigate this risk recruitment of dedicated individual independent project consultants will improve institutional capacity to implement the ESMF where it is weak and will bring relevant expertise in social and environmental safeguards to support the completion of the studies needed during the project life cycle (i.e. ESIA, ESMP, SESA…).

The UNDP NCE-VF Unit will provide advice to project teams as needed to support the implementation of this ESMF and the preparation, implementation and monitoring of social and environmental management plans/measures.

Prior to implementation the project will budget sufficient funds for a suitable qualified individual/team who will support the environmental and social safeguards of project activities. Training on safeguards should include familiarization of potential environmental and social impacts, appropriate mitigation and monitoring actions and compliance requirements.

A detailed assessment for each potential implementation scenario will be conducted to establish the institutional capacity for applying safeguard instruments and complying with UNDP safeguard policies for the duration of the project. These experts will provide an induction session for the Project Management Unit and all relevant project partners, as needed, on safeguards responsibilities and approaches. Thus, training modules would be prepared as required and training would be scheduled as necessary. A capacity study will be conducted for stakeholders identified requiring additional support and formal training on safeguards aspects of the project and (AMP) program as established in the SESP. The appropriate capacity measures will be implemented (i.e. Capacity Assessment, Partner Capacity Assessment Tool, Harmonized Approach to Cash Transfer, Capacity Management Plan…) to overcome this concern for both duty bearers and right-holders.

As part of the capacity building, stakeholders will receive information and guidance on how to communicate with the project organisation structure about concerns and grievances if they arise, including guidance on when and how to use the stakeholder engagement and grievance mechanisms. Details of this instrument are provided below for both cases.

At the preparation phase, as studied above, it has been identified in most cases that the existing national capacity the staff are not familiar with procedures for project preparation and implementation, including procurement of the UNDP safeguards Standards (and in particular, the new released version effective since 1 January 2021). Similarly, there is room for improvement on their enforcement from both, the duty-bearer and right-holder side, to ensure full and effective application of such safeguards. This is considered in the project design and budget as follows:

- Local expertise among the regulatory practitioners in regards to implementing and/or verifying the safeguards compliance to the extend needed to comply with the program requirements is limited. Escalating the knowledge of country administration and exchange of experiences seems necessary for an appropriate performance in respect to securing the safeguards. This is particularly important for implanting monitoring, evaluation and verification mechanisms, including complaints, grievances and redresses. Similarly, in respect to the social aspects specifically, as they tend to be a subset of the environmental analysis and limited to the human environment without real sociological approach, for example to vulnerable groups or gender. This scenario accentuates the need to take this capacity shortcoming into account in the project design and budget.
- Similarly, expertise among the right-holders (i.e. local stakeholders, population, private associations, NGOs…) suffer constrains to deploy resources and keep themselves educated to the level the safeguards are implemented by the project. Therefore, sensitization, education and the possibility to be included in the development of the project needs to be contemplated as part of the project design.

SECTION IX - Monitoring and evaluation arrangements

The subsequent ESMP of each Child Project (per the procedures above) will establish the specific tailored indicators for each sub-project. The collection of data through the M&E will control the performance of the project for each risk identified in the SESP.

Monitoring should be conducted by an individual, firm, or community organization not directly affiliated with the project organization structure. These will fall into the M&E requirements established at the Project Document level. See Section X, Table 7 for further details.

SECTION X – Action Plan and Budget for ESMF implementation

The implementation of the measures established to mitigate each safeguard related risk will be in line with the pace of the activities of each project. See Attachment VI for further details on the expected timeline for each project.

E&S budget assessment is typically conducted and disclosed during the project design phase prior to appraisal. However, in this case it will need to be financed through the project budget (hence, during project implementation) at the time when details of the sub-projects are known.

The budget plan will tailor costing and resourcing to ensure sufficient funds and contingencies are available throughout the project on each particular option. The list may include but not limited to:

a. Undertaking an institutional safeguards capacity assessment in each project partner
b. Project staffing and administration (i.e. environmental and social safeguard officer[7] in PMU)
c. Training sessions and capacity building on safeguard issues
d. Undertaking social and environmental assessments (ESMF/ESMP/SESA/ESIA…) including baseline surveys, field visits, consultant fees, development consent fees, application fees, technical input, designing, implementing, monitoring, etc for each subproject
e. Conducting community consultation sessions and dissemination of public information (radio, newspapers, etc)
f. Technical design of subproject/s to meet specific standards
g. Environmental permits for compliance under the national/local legal framework
h. Costs of stakeholder engagement, information disclosure, managing GRM and dispute resolution

The cost of each item listed above varies from sub-project to sub-project and will be estimated by the Project Manager as they are defined along the project cycle. The accuracy of these cost estimates is important and should be reviewed by appropriate persons (Project Steering Committee), so as to avoid duplicate costs or unnecessary expenses.

A preliminary cost analysis for developing all E&S needed by an expert is outlined in Annex 8 of the ProDoc, and a detailed breakdown for the M&E tasks is shown below. In addition, fees payable to

[7] Social and Environmental Safeguards Officer – Terms of Reference for specific tasks are established at the ProDoc Annex 8.

national/sub-national authorities for the submission and approval of the environmental and social studies will need to be taken into account too. These typically vary depending on various factors. Costs associated with the time of Project Management Unit Staff coordinating the implementation of this ESMF or UNDP support are not considered.

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost
Track progress of ESMF implementation	M&E and reporting of ESMF implementation, with key results and issues presented to the Project Board on a regular basis	Quarterly, first year only	ESMF requirements are completed for this project	Project Manager and Social and Environment Safeguards Officer (SESO)	None
Development of assessments report(s), and management plan(s) (IPP if applicable, ESMP, SESA, ESIA…)	Carried out in a participatory manner, targeted analysis of potential impacts, as well as identification and validation of management measures, drafted in participatory manner.	In the 6 months following the Inception workshop	Potential impacts are assessed with support of external consultants and participation of project team and stakeholders; targeted assessment report completed; an Indigenous Peoples Plan and, as determined by the targeted assessments, other management plans will be developed; management actions will be identified and incorporated into project implementation strategies.	International and national consultants (environmental and social) Project Manager and SESO with guidance from UNDP	TBD, depending on the scope and nature of the sub-project (i.e. number of pilots)
Implementation of management measures and M&E of potential impacts identified in assessments, in line with the subsequent management plans.	Permanent and participatory implementation and M&E of management measures, in accordance with findings of targeted assessments.	Annual, pre-PIR and then pre-MTR and pre-TE	Implementation of stand-alone management plans; participatory M&E; integration of management plans into project implementation strategies	Project Manager, Social and Environment Safeguards, oversight by UNDP CO, PB	TBD, based on the result of assessment

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost
Integration of Learning	Knowledge, good practices and lessons learned regarding social and environmental risk management will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project, including updating management plans and training the PMU.	Annual	Relevant lessons are captured by the project teams and used to inform management decisions, and compared against the SESP and ESMP.	Project Manager and SESO	None
Annual project quality assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project	Annual	Areas of strength and weakness will be reviewed and used to inform decisions to improve project performance, including adjustments to management plans and activities.	UNDP CO, UNDP-GEF RTA, Project Manager and Project SESO	None
Review and make course corrections	Internal review of data and evidence from all monitoring actions to inform decision making	Annual	Performance data, risks, lessons and quality will be discussed by the project steering committee and used to make course corrections	Project and/or Program Steering Committees (considering stakeholders' opinions)	None
Annual project implementation reports	As part of progress report to be presented to the Project Steering Committee and key stakeholders, analysis, updating and	Annual	Updates on progress of ESMF and/or ESMP will be reported in the project's annual PIRs. A summary of the avoidance and mitigation of potential	UNDP CO, UNDP-GEF RTA and Project Manager	None

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost
	recommendations for risk management will be included		social and environmental impacts will be included in the program annual report, sharing best practices and lessons learned across the program.		
Project review	The Project Steering Committee will consider updated analysis of risks and recommended risk mitigation measures at all meetings	Annual	Any risks and/ or impacts that are not adequately addressed by national mechanisms or project team will be discussed in project steering committee. Recommendations will be made, discussed and agreed upon.	Program Steering Committees, UNDP-GEF RTA, Project Manager, SESO	None

Table 5 - ESMF action plan

The ESMF budget accounts for the particularities of each Child Project and it takes into account all project components (this is in line with the SESP as there are risks identified across all components): number of risks to be dealt with, level of each risk, whether they will require mitigation measures, whether they are involved in setting up whole new minigrids infrastructure or just additional equipment to complement existing minigrids, economies of scale, etc. This all in order to provide an indicative tailored budget that matches its respective SESP.

Table 6: Estimated budget for ESMF implementation per country in US Dollars.

	BF	CO	MW	NI	DJ	ES	SO	ET	MA	SU	TOTAL	AVERAGE
High risks	-	-	-	-	-	-	-	-	-	-	-	-
Substantial risks	40,416	26,667	9,773	103,338	53,749	12,085	68,799	20,236	14,000	71,963	421,026	42,103
Moderate risks	16,840	11,111	19,546	62,003	32,249	10,575	28,666	20,236	12,250	20,561	234,037	23,404
Low risks	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL ($) ESMF budget	57,256	37,778	29,319	165,341	85,998	22,660	97,465	40,472	26,250	92,523	655,062	65,506

Attachment I – Project Description

Generalities

Below is the analysis of the relevant aspects regarding country's national policy and regulatory framework relevant to the safeguard terms for the project proposed:

Country	Legal E&S framework - Stauts	Legal E&S framework - Enforcement	Legal E&S framework - Mini-grid specifics
Burkina Faso	Nascent	Weak	None
Somalia	Nascent (under development), varies in Somaliland and Puntland (here better frameworks are established)	Very weak	None
Djibouti	Nascent (under development)	Weak	None
Comoros	Nascent	Very weak	None
Eswatini	Nascent (under development)	Weak	None
Malawi	Needs improvement	Needs improvement	None
Ethiopia	Nascent	Weak	None
Nigeria	Defined	Uneven	None
Sudan	Nascent (interim constitution, some relevant acts outdated or awaiting approval)	Weak	None
Madagascar	Nascent	Weak	None

Table 7 – National environmental and social framework per country

Below is the analysis of the relevant aspects regarding the demonstrative minigrids (pilots) planned for each project:

Country	Final use of energy generated	Existing energy providers	Pilot sites and structure chosen
Somalia	Mini-grid to join existing diesel mini-grids, may be	Charcoal and wood sellers in	Sites to be allocated through public calls for proposals.

	for residential and/or productive purposes.	the formal and informal markets, and existing private diesel mini-grids.	Expected to be isolated mini-grids (not connected with the national grid).
Djibouti	Solar PV-battery mini-grid and solar street lighting, with consideration on business models for social housing.	Charcoal and wood sellers in the formal and informal markets, and existing off-grid private diesel mini-grids.	The locations for the pilots will also be decided at project start, using the findings of the DREI analyses and the needs assessments to be performed on the locations proposed by the Government of Djibouti. Expected to be isolated mini-grids (not connected with the national grid).
Eswatini	Pilot 1) addition of electrical productive related equipment (no batteries, no solar panels), productive sectors to be defined through further consultation. Pilot 2) Off-grid mini-grid to be used as "energy hub" for productive, commercial and domestic use.	There are no mini-grid projects in the country. The baseline is wood and paraffin from formal and informal sellers, mainly poor woman.	1) Sigcineni area: Will join the existing pilot installation to demonstrate the contribution of productive uses of energy and efficient appliances on mini-grid capacity factor, revenue and business case. The AMP does not contemplate the supply of batteries and/or solar panels but rather other equipment needed for the productive sector when known (i.e. fridge, etc). 2) Ekubekezeleni, Bulimeni area: Creation of an 'energy hub' in a rural community that powers a hub of productive and commercial uses, for example a facility that can house various forms of agro-processing of crops for own use and resale, cold storage facilities for processed produce, business needing electricity like an internet caf'e, etc. The AMP plans to set up the whole off-grid mini-grid (including solar panels and batteries). Another

			element foreseen for the pilot is making available EE cooking appliances to households. One option includes subsidizing the purchase of electric pressure cookers to displace less energy and time efficient, costly cooking fuels. Again, the exact scope and focus will be dependent on a status quo and needs assessment and consultation with the community.
Comoros	Pilot 1) Super-hybrid existing mini-grid system (diesel and hydro, biomass, solar, national grid) with different final energy uses, the AMP 4th generation keymaker will be an additional part for a second business line, conserving and pre-processing local raw fish. Pilot 2) Mini-grid as a stand-alone container/system generating energy with multiple final uses: i.e. purifying water to make it drinkable, charging station for electronic devices (i.e. mobile phones, computers), internet access, solar pumping for irrigation for off-season agriculture, and possibly also small solar processing equipment. Pilot 3) Island Grande Comore, aiming at developing agriculture, agribusinesses and agrivoltaics. In addition, electricity to the hospital of Dibwani.	Kerosene, candles and wood sellers in the formal and informal markets, and existing private diesel mini-grids.	Proposed innovative technological solutions are tentative and would be confirmed during implementation based on relevant studies and analyses. Potentially: 1) Island of Mohéli, in the neighbor villages of Wallah II and Miremani (194 households in total), a coastal rural area relying mainly on fishery and tourism (before COVID-19). There, a 4th generation keymaker model will be put in place based on the fishery activity. A "Super" hybrid system with biogas (GEF/UNDP SGP), hydro (GEF/UNDP SGP), solar (AMP) and possibly national grid will be put in place by parallel projects, so the AMP will join this. 2) Island of Anjouan, remote unelectrified village, a containerized all-in-one system (solar kiosk), based on a solar minigrid with battery storage. 3) Island Grande Comore, high agricultural potential. At the farm, a biodigester should be implemented in 2021 based on SGP GEF financing. A project aims at attracting 100+ youth to live and work full time in Sangani. In addition to support post-COVID response and healthcare, the hospital of Imbweni

			close to the future minigrid will benefit from the minigrid's electricity.
Malawi	Pilot 1) Addition of electrical productive related equipment (no batteries, no solar panels), to existing solar PV mini-grid, for residential and/or productive purposes. An environmental and social management plan (ESMP) is in place. Pilot 2) An online 'One Stop Information Centre'	Existing solar PV mini-grid	The AMP does not contemplate the supply of batteries and/or solar panels but rather other equipment needed for the productive sectors and/or knowledge tools: 1) Mthembanji Village: join an existing project (EASE) with a solar-PV mini-grid. It currently provides electricity to 60 customers (41 households, 17 businesses, 1 church and 1 school). Despite the small size of the system, the available capacity is significantly underutilized with peak demand only approximately 20% of the installed capacity. The project will contribute with 1) a rice miller, 2) the Small and Medium Enterprises Development Institute, 3) making available efficient electrical appliances to households and small businesses, 4) additional monitoring requirements and data collection instruments. 2) An online 'One Stop Information Centre' established with practicable guidance to developers for navigating unfamiliar and/or evolving regulatory processes from concept to commissioning.
Nigeria	The project will support the integration of solar PV mini-grids in existing agriculture value chains (i.e. productive energy uses). The project does not consider the possibility of the following: - Hybrid mini-grids with	Fuel/energy sellers in the formal and informal markets, and existing private mini-grids (i.e. based on diesel, renewable energies, etc).	Pilots for Tier 1 and Tier 2 agricultural activities. Tier 1 agricultural value chains already contain mechanized post-harvest processing using fossil fuel-powered equipment. These value chains can be electrified using solar PV mini-grid electricity immediately. Tier 2 agricultural value chains contain post-harvest activities that are not mechanized

	existing fossil fuels (i.e. diesel) systems. - Hybrid mini-grids as an addition to other existing renewable technologies (hydro, biomass…). - Connection of mini-grids to national grid.		but that can be electrified in the short-to-medium term. A total of six pilots will be developed through a transparent Call for Proposals.
Burkina Faso	Pilot 1) Delivering power to health facilities. Pilot 2) Projects geared towards the food, water and energy nexus, looking to increase productivity (sectors could include agriculture, animal husbandry, food processing, fishing, etc...) for example through reducing post-harvest loss (processing and conservation) through solar minigrids. This will include using multi-functional platforms (MFP) as anchor load for electricity from minigrid.	Fuel/energy sellers in the formal and informal markets, and existing private minigrids (i.e. based on diesel, renewable energies,etc).	Sites to be allocated through public calls for proposals.
Ethiopia	Support to existing cooperative projects for productive sectors to be defined through further consultation.	Estimated over 200 existing minigrids, mostly diesel, many tiny, informal and unregulated. And,	Nationwide, specific sites to be allocated during project implementation.

		fuel/energy sellers in the formal and informal markets. The project will act on MoWIE project existing mini-grids, further details to be provided along the project cycle.	
Sudan	Hybridization (adding renewable energy generation) to existing diesel mini-grids, may be for residential and/or productive purposes.	The baseline is the energy/fuel suppliers from the formal and informal markets. There is 3,500MW of electricity generation capacity largely from hydroelectricity under the National Electricity Corporation (NEC). Wood and charcoal are often used in homes uses, as well as for some small industries, as a cheaper alternative to gas cylinders.	Five sites in the south of the country have been identified.
Madagascar	Addition of electrical productive related equipment (no batteries,	The baseline is the energy/fuel suppliers from	The boundary of the projects has been scoped to a southern sub-part of the country but the locations for

	no solar panels), to existing solar PV mini-grid, for residential and/or productive purposes.	the formal and informal markets, the many people that sell wood, charcoal, etc for cooking and kerosene for lighting purposes and also small petrol gensets providing cell phone charging and energy related services.	the pilot related activities will be decided at project start, using the findings of component 1 (i.e. the needs assessments to be performed on the locations proposed).

Table 8 – Key aspect of each pilot per project

Somalia

Component 1-Policy and regulations. This component aims to ensure that the policy and regulatory environment in Somalia is enabling and supportive of the shift to solar and hybrid minigrids for electricity generation. It starts with conducting DREI techno-economic analyses to propose suitable tariff structures and financial de-risking instruments, then moves to supporting digital transformation to online tools and platforms for performance monitoring, consumption tracking, tariff calculation and billing as ways of facilitating the operationalization of existing policies and regulations of relevance to clean energy and minigrid sector development. In addition, it tackles two ingredients that are crucial for the longevity of the proposed tools and instruments. The first is the need for improved institutional setup to enhance the potential for positive government-led interventions in the minigrid sector. The second is the need for quality standards for system components to enhance the efficiency of solar and hybrid minigrid operation.

Component 2. Minigrid project and Business Model innovation with private sector engagement. This component focuses on innovative ways for increasing private sector engagement in the shift from diesel minigrids to solar and hybrid minigrids. The work with developers and ESPs will come in three ways: demonstration, capacity building and representation. For demonstration purposes, pilot projects will be implemented to showcase the benefits of hybridization and digital transformation. For capacity building, the AMP in Somalia plans to institutionalize knowledge production in the minigrid sector by establishing a one-year academic programme dedicated to solar and hybrid minigrid education. As for representation, the project will support the establishment and capacitation of industry associations for minigrid developers and ESPs to ensure knowledge sharing among private sector actors and continuous engagement with the authorities in decision making processes.

Component 3. Innovative financing. The competitiveness of solar and hybrid minigrid development depends on the commercial viability of the system, but also on the funding opportunities available to the private sector players wishing to engage in hybridization or complete shift to renewable sources. The establishment of an innovative financing mechanism and instruments requires undertaking a holistic

analysis of the minigrid sector, how it operates, the stakeholders involved, as well as a study of present and expected challenges potentially affecting the scaling up of investment in the minigrid sector.

Component 4. Convening, dissemination, tracking (Knowledge Management). Within the context of the AMP, knowledge sharing, learning and synthesis of experiences will be multi-directional, i.e. flowing from the Regional Program to the Somali project, and vice versa, and between the Somali project and other national child projects participating in the Program. The regional chapeau will connect countries to knowledge, resources and networks of best practice and will support the rapid deployment of expertise, solutions and tools to support on-the-ground implementation. This component defines the activities to be conducted by the AMP in Somalia to ensure knowledge production on the national-level and knowledge sharing on both the national and regional levels. The component also covers the QA and M&E aspects of the AMP in Somalia project implementation.

Djibouti

Component 1. Policy and regulations. This component aims to build upon GEF6 minigrid development project by conducting more in-depth analysis of the commercial viability of the proposed regulatory framework and tariff structure. In addition, it tackles a few ingredients which are crucial for the longevity of any proposed delivery model, such as improving the institutional setup of the minigrid sector to enhance the capacity for managing the proposed model, developing the technical standards for system components and enhancing the government's capacity for testing, and embedding minigrid technical knowledge in the technical education and vocational training programmes in Djibouti.

Component 2. Minigrid project and Business Model innovation with private sector engagement. This component focuses on the promotion of innovative ways to increase private section engagement in minigrid sector development. The goal of the activities under this component is to provide a realistic example of the selected delivery model. Therefore, pilot projects will be implemented, consisting of solar PV-battery minigrid systems, developed using the EPC+ESCO delivery model, or other - as may be recommended in the findings of the DREI analyses. The pilots will also integrate the installation of solar street lighting units, as a safety priority for off-grid areas and a most cost-efficient alternative to extending connections from the minigrid pilots for street lighting. Furthermore, capacity building will be conducted to support potential bidders with submitting their proposals for the pilot project, and an industry association will be established to ensure higher engagement and knowledge sharing on similar

opportunities in the future.

Component 3. Innovative financing for minigrids. The sustainability of the proposed delivery model depends on its commercial viability, but also on the funding opportunities available to the private sector players wishing to engage in the Djibouti minigrid sector. The establishment of an innovative financing mechanism and instruments requires undertaking a holistic analysis of the minigrid sector, how it operates, the stakeholders involved, as well as present and expected challenges potentially affecting the implementation of the selected business model.

Component 4. Convening, dissemination, tracking (knowledge management). Within the context of the AMP, knowledge sharing, learning and synthesis of experiences will be multi-directional, i.e. flowing from the Regional Program to the AMP in Djibouti project, and vice versa, and between the AMP in Djibouti project and other national child projects participating in the AMP. The regional chapeau will connect countries to knowledge, resources and networks of best practice and will support the rapid deployment of expertise, solutions and tools to support on-the-ground implementation. This component defines the activities to be conducted by the AMP in Djibouti to ensure knowledge production on the national-level and knowledge sharing on both the national and regional levels. The component also covers the M&E and QA aspects of the AMP in Djibouti project implementation.

Comoros

Component 1 focuses on creating a conducive environment for private sector participation and engagement in facilitating access to renewable and reliable electricity in rural areas in Comoros. It aims at de-risking specific barriers, as depicted in II - Development Challenge and in the paragraph below on Risks, especially related to energy market, social acceptance, hardware, digital, labor, developer, end-user credit, currency and sovereign risks as defined in the DREI Minigrid Derisking Methodology developed by UNDP.

Component 2: Project and Business Model Innovation with Private Sector Engagement. Given Comoros' electricity, and specifically MGs', situation, policy and regulatory framework, and being a nascent MG market, the project aims at enabling the proof of concept of MGs with private sector engagement backed by communities in rural areas. Thanks to innovative business models of demonstration pilots, rural

communities will gain access to and reliability of power. As lessons learned in other countries have highlighted, especially in SSA and in SIDS, a MG can only become profitable and sustainable when based on productive use and cost-reduction. Such players, be it commercial (for-profit) or social (health centers, schools), are energy intensive during the day where the sun is largely available and represent a relatively stable and significant electricity demand source. The project will support the identification of relevant energy intensive value chains across the archipelago.

Component 3: Innovative Financing. Access to low-cost, commercial capital (equity and debt), for both supply and demand, ideally in local currency, is key to reducing the cost of minigrids, and the scalability and sustainability of a minigrid market. Being an early stage minigrid market, there is no dedicated financial scheme and funding around minigrids in the Comoros.

Component 4: Knowledge Management and Monitoring & Evaluation where data and digitalization are mainstreamed, across stakeholders, into local minigrid market development. Increased knowledge, awareness and network opportunities in the minigrid market and among stakeholders, including benefitting from linkages to international good practice.

Eswatini

Component 1. Policy and regulation. The first component seeks to address barriers to cost-effective mini-grid development within the policy and regulatory environment. With the development of a comprehensive mini-grid and off-grid regulatory framework initiated, but not yet finalised, the AMP contribution under this component will focus on establishing universally relevant resources and strengthening capacity to complement the policy and regulatory direction as it evolves. It aims to empower the key decision-makers and role-players to effectively navigate the development of this nascent market with access to good information resources and the experience available to the AMP from the regional project. It is envisaged that, under the leadership of the MNRE, these resources will support the formulation of a shared vision and roadmap to enable mini-grid development in the country.

Component 2. Project and Business Model Innovation with Private Sector Engagement. The second component aims to demonstrate innovative business models, based on cost reduction, that can encourage private sector participation in RE mini-grid development in the country. Noting again the risks

that present hurdles to private sector participation in mini-grid investments, lessons from two decades of mini-grid developments in the region and the specific challenges for feasible mini-grid operations presented by the Eswatini country context, the ability to demonstrate innovative business models will be critical to open the market.

Component 4. Knowledge management and Monitoring and Evaluation. As a newcomer to mini-grids, Eswatini stands to benefit enormously from mini-grid experience gained across the continent. Harvesting both local and regional experience is key to inform future decision-making and shape policy interventions to optimize the broader contribution by mini-grids in the country and region. The regional project can help facilitate access to past and current learnings as well as best practices.

The fourth component links into the knowledge resource of the regional project to target increased awareness and network opportunities in the mini-grid market and among stakeholders. The targeted outcome for this component is stated as: Increased awareness and network opportunities in the mini-grid market and among stakeholders; Lessons learned for scaling up rural electrification using low-carbon mini-grids.

Burkina Faso

Component 1: Policy and Regulation (PC1). This component aims to address policy, regulatory and institutional barriers identified in the baseline scenario preventing private sector investments for the uptake of renewable energy minigrids in Burkina Faso. This a key component, which will support the market with clear and transparent policies and regulations in order to create the enabling environment to build private sector confidence in the renewable energy minigrid sector in order to allow for low-cost commercial capital to start flowing in Burkina Faso for off-grid electrification through solar PV minigrids with storage. For the private sector to invest, they require clear, transparent and long-term domestic policies and regulations, which are well-designed, implemented and enforced, thus contributing to de-risking the sector. Under these conditions, low-cost, commercial capital will start to flow.

Component 2 (PC2): Project and Business Model Innovation with Private Sector Engagement: Private sector (developers, supply chain, investors, financial intermediaries, etc.) involvement in minigrid cost-reduction will be central to the program's approach. A range of activities will be offered to engage and support the private sector. This component aims to promote private sector engagement and innovative

business models, especially in productive uses. Additionally, the pilot project be also looks to confirm deliver models for social infrastructure such as health and education facilities. Additionally, outputs 2.2 of this component will focus on building the capacity of private sector actors as well as institutions such as ABER and ARSE in procurement processes.

Component 3 (PC3): Innovative financing. Access to low-cost, commercial capital (equity and debt), ideally in local currency, is key to reducing the cost of minigrids, and ensuring the long-term commercial sustainability of minigrid markets. The project will establish partnerships with development banks and commercial financial institutions (local banks, microfinance institutions, etc.), and will support development innovation in cost-efficient financial mechanisms that leads to minigrid cost-reduction thus bringing minigrid markets to maturity. This activity will be implemented by UNCDF, as the responsible party in close collaboration with the Swedish Cooperation (SIDA), which has confirmed during the PPG phase its intention to set-up a first loss guarantee scheme to incentivize banks to lend to off-grid companies. Lessons learned from Sunref, REACT and CEADIR will inform training modules and TA. In addition to training in understanding minigrid business and financial models, commercial financial institutions (CFI) will be trained to set-up appropriate financial products for the mini-grid markets.

Component 4: Convening, dissemination, and tracking progress. This component primarily focuses on the generating, dissemination and management of knowledge products around the project and its main thematic areas such as minigrid cost-reduction. At the national level, the child project will also, emphasize awareness building and sensitization towards all key stakeholders from government, public sector and local communities about the benefits of minigrids and the negative impacts of diesel-based alternative. Dissemination of lessons learned and best practices from Burkina Faso and other countries with similar conditions will be key activities.

Malawi

Component 1. Policy and regulation. The first component seeks to address barriers to cost-effective mini-grid development within the policy and regulatory environment. Despite a relatively young market, Malawi has made significant progress with mini-grids recognized and embedded in policy, regulatory and planning documentation that includes provision for import tax waivers, inclusion in a least cost rural electrification plan, provision for a subsidy, and the regulatory framework for mini-grids published in July

2020. It is expected that this support will contribute to the intended outcome of this component: an enabling environment where appropriate policies and regulations are in place that address policy, institutional, regulatory and technical barriers to cost effective RE mini-grid development and facilitate investment in RE mini-grids.

Component 2. Project and Business Model Innovation with Private Sector Engagement. The second component aims to demonstrate innovative business models, based on cost reduction, that can encourage private sector participation in RE mini-grid development in the country. Malawi has gained invaluable experience in the development and operations of mini-grids with lessons informing greater innovation in delivery models, tariff designs and productive uses, among others. Despite these learnings and advances in the regulatory environment, a financially independent or self-sufficient mini-grid operation has not yet been achieved. The targeted outcome for this component is stated as having innovative business models based on cost reduction operationalized to support and strengthen private sector participation in solar PV-battery mini-grid development.

Component 3. Knowledge management and Monitoring and Evaluation. Significant experience has been gained with mini-grid developments in Malawi. Harvesting both local and regional experience, both past and future, can help encourage private sector interest, accelerate the adoption of clean energy mini-grids and optimize the broader developmental impact of mini-grids in the country and region. The regional project can help facilitate access to past and current learnings as well as best practices from other countries. This third component therefore links into the knowledge resource of the regional project to target increased awareness and network opportunities in the mini-grid market and among stakeholders. The targeted outcome for this component is: Increased awareness and network opportunities in the mini-grid market and among stakeholders; Lessons learned for scaling up rural electrification using low-carbon mini-grids.

Nigeria

Component 1: Project and Business Model Innovation with Private Sector Engagement: Component 1 centres on providing a combination of financial support and technical assistance for embedding low-carbon minigrids into the agriculture value chain that directly supports REA's new initiative on Energizing Agriculture (Annex SA1). Ass per the ToC discussed in the previous section, the main focus of the project's

interventions will be on increasing the commercial viability of low-carbon minigrids at scale using cost reduction levers (e.g. a derisking approach to lowering financing and hardware costs). In the proposed business delivery model, the focus is on the agriculture-energy nexus, wherein a commercially viable downstream agriculture value chain (pre- and post-harvesting value addition) becomes a cornerstone element in creating reliable and predictable energy load that creates a pull for renewable electricity demand from minigrids.

Component 2: Innovative Financing. In order to support the scaling up of low-carbon minigrids through appropriate business models that will be identified under Output 1, Component 2 will focus on transferring residual risks and barriers that cannot be fully mitigated under the first component and thus involves close collaboration and coordination with existing public and private financial actors, financing initiatives and future partners including the World Bank National Electrification Programme (NEP) and the GIZ-funded NESP II. The main focus of this component is to ensure that financing for private investors in the agriculture-energy value chains is catalyzed most efficiently and cost-effectively.

Component 3: Knowledge management and scale-up strategy. The third component addresses outreach, and capturing and dissemination of results for scaling up solar PV minigrids. It also seeks to ensure adequate monitoring and evaluation (M&E) of the project. This component is aligned with the Monitoring and Evaluation Plan given in Section VI of the ProDoc".

Ethiopia

Component 1. Policy and regulations: Component 1 will strengthen the policy and regulatory enabling environment and pave the way for a successful deployment of cooperative-led renewable minigrids. Building upon the strong previous and ongoing work by other donor-funded projects (most notably the World Bank's ADELE project) on policy and regulations as well as capacity support for MoWIE, Component 1 is focused on (i) critical analysis, policy development, and capacity enhancement to address gaps needed for cost-effective deployment of of cooperative minigrids, (ii) contractual, financial, and institutional arrangements for grid arrival, (iii) investment de-risking analysis for minigrids, (iv) development of a strategy for minigrid decommissioning and associated waste management,, and (v) capacity building for MoWIE staff and its sectoral institutions via the new MoWIE Innovation Center.

Component 2. Business model innovation with private sector: Component 2 will enhance the technical capabilities and the cooperative-led delivery models of minigrid developers. This component builds upon MoWIE's ongoing efforts to pilot and test the viability of these alternative business models in coordination with productive use, with the ultimate goal of reducing costs, securing sustainable revenues, and documenting the business case for these models in order to attract market entrants and investors.

Component 3. Scaled-up financing: Minigrid financing in Ethiopia is almost exclusively reliant on donor support, with minimal commercial financing mobilized to date. The Government intends to launch new mechanisms, such as the Minimum Subsidy Tender and a debt service reserve account, to help attract private sector financing to the minigrid subsector. Component 3 will develop financing instruments to help leverage and de-risk private sector financing for renewable minigrids. Based especially on the DREI analysis (Output 1.3) AMP will assist MoWIE and REFEF in designing specific interventions to facilitate financing for private and cooperative minigrid developers as well as for productive use by off-taking entrepreneurs and cooperative members. Component 3 will also deliver technical training for commercial banks and microfinance institutions on minigrids and productive use. The outputs are as follows.

Component 4. Digital, Knowledge Management and Monitoring and Evaluation: The AMP provides a unique opportunity to develop a single set of metrics and guidelines for data collection, and use them to collect data from minigrid investment pilots across different national projects which the AMP regional project can then aggregate, derive insights from, and systematically disseminate knowledge with participating AMP countries and with the broader minigrids sector in Africa. At the same time, the link between the regional project and the total of eighteen (18) national child projects provides a unique 'distribution channel' opportunity across Africa for AMP to mainstream the use of digital tools and solutions for minigrids cost-reduction and scale-up.

<u>Sudan</u>

Component 1. Policy and Regulation: This component will work on having the necessary policy dialogues and producing the right regulations at the right time as the mini-grid market evolves. As the minigrid market in Sudan is in its infancy, continuous dialogue through working groups and capacity building is essential under this component, as an attractive, enabling environment for mini-grids is yet to be developed in Sudan in comparison with other countries.

Component 2. Minigrid Project and Business Model Innovation with Private Sector Engagement: This component will target deploying solar PV mini-grid pilots in Sudan. The pilots will aim at developing, implementing, operate and maintain, and monitor at least two projects piloting the retrofitting (i.e. hybridization) of existing diesel based mini-grids (or off-grid stations as per the term used by MoEM and SEDC) in order to reduce the O&M costs of operating these power plants with fuel only. It is recommended that the implementation of these solar PV power plants and its associated infrastructure will be done by the private sector, through a Build, Own, Operate and Transfer mode over two phases, with a low solar share energy penetration in the first phase followed by more complex medium to high solar share penetration retrofitting in the second phase.

Component 3. Innovative Financing for Minigrids: As this child project aims at helping Sudan in transitioning from almost no experience in private sector participation into a more inclusive, multilateral rural electrification approach for other actors (private sector, states and potentially cooperatives or non for profit), innovative and adequate financing mechanisms need to be formulated and availed to support the financing needs of eventual projects. Similarly, it will be essential for this child project to identify and help other actors in developing a list of sites that are best served by mini-grid technologies, in order to bring these sites into funding stages and support pipeline development activities.

Component 4. Convening, dissemination, tracking (knowledge management): The project will promote increased awareness and network opportunities in the sustainable energy markets and among stakeholders, and lessons learned for scaling up rural electrification using solar PV-battery minigrids.

Madagascar

Component 1: This component aims to ensure that Madagascar's policy and regulatory environment enable and support the shift to comprehensive solar off-grid electrification solutions. As Madagascar adopted a new legal framework for the electricity sector in which new provisions have been integrated, a central aspect of this component and the project at large is to support the dissemination of this new Decree 2021-326 (2021) to local private operators and investors, in particular the directives that contribute to the simplification of licensing and approving off-grid electrification facilities. The project will notably support ADER and project developers in general in the roll-out of the new declaration procedure.

A key theme for AMP is mini-grid cost-reduction across financing costs, hardware costs, soft costs, and innovative business models. With lower costs mini-grids will be more financially viable, commercial capital flows will increase, and end-users will benefit from lower tariffs and expanded service. The Derisking Renewable Energy Investment (DREI) framework will be applied in AMP National projects to support policymakers in selecting public instruments to promote private investment in Solar PV Battery Mini-grids. In Madagascar, upon early observation DREI risks that may be explored further in during project implementation include Energy Market Risk, Financing Risk and Sovereign Risk . Overall, the project seeks to encourage a more streamlined approach to establish solar off-grid electrification ventures, thereby reducing any policy barriers and widening the possibility for more actors to provide renewable energy services and scale-up.

Component 2: This component will target deploying of a holistic off-grid approach of several solar technologies, where the mini-grid is 100% solar-battery (greenfield) with productive uses in the southwest region of Madagascar. The pilot(s) will benefit from 2 in-depths studies conducted at project initiation (Study 1: Affordability to pay for modern electricity and Study 2: an assessment of village level for improved capacity to select sites suitable for high-value PUE intervention) in component 1. The pilots will aim at developing, implementing, operating, and monitor at least 2 projects in the region. The ESP(s) project partner(s) will be selected following ADERs established procedures and, through this pilot programme, will become project partners to carry out the implementation of solar villages that include PV mini-grid(s) and scattered solar end-users. The pilot project seeks to engage the private sector under a scheme that is compatible with the new delivery model in Madagascar and UNDP rules.

Component 3: The AMP project will closely study the business plans of the operators so that the Partnership Agreements in component 2 will have a tangible impact on the sustainability of the electricity services, the increase in access to electricity for the population, the improvement of their living conditions, the preservation of the environment and the economic development of the area. The project will provide awareness to the national financial sector on business and financing models for an off-grid holistic approach that integrates electrification services.

Component 4: A quality assurance and monitoring framework to measure, report and verify the sustainability impacts of all supported off-grid / mini-grid pilot projects, including GHG emission reductions , will be adopted and implemented based on the regional project guidelines. The performance

of the mini-grids will be monitored using simplified technical, economic and business KPIs. Edge computing applications can ensure the efficient collection, process and visualisation of data, in order to minimise CAPEX and OPEX requirements of solar off grid service areas and facilitate the M&E of the programmes. An evaluation of the results and impacts of the project will be carried out at mid-term and at its completion. Lessons learned will be capitalized and shared with the regional project based on guidelines that will be defined by the regional project and shared at the project inception workshop. Capacity building will be provided to the Project Management Unit (PMU) staff to compile lessons learned and share knowledge effectively.

Attachment II - Risks A&M specifications

The following is the detailed analysis of each risk leading to their respective assessment and management measures to be in place. To know which risks are applicable to each country and activity please refer to the SESP.

RISK 1: Risk on lack of capacities

This risk arises from the following questions in the checklist:
P.2 Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?
P.3 Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?
3.8 engagement of security personnel to protect facilities and property or to support project activities?

Assessment and Management:

1. The project includes a tailored plan to include rights-holders and duty-bearers (top and bottom, i.e. government authoritative staff, local energy users...) in all awareness, training and capacity development activities to meet obligations and claim rights as needed. As part of the broader ESIA, this will be achieved through a Capacity Assessment for both groups to meet the requirements of the UNDP. As part of this assessment, UNDP or an independent expert will review the technical capacity of the implementing partner, expertise and resources to execute activities in a manner consistent with UNDP's SES to manage social and environmental risks and impacts. For the Implementing Partner (IP), this will be achieved through the review of the Partner Capacity Assessment Tool (PCAT) and the Harmonized Approach to Cash Transfer (HACT) exercises or as a separate exercise if a more specific or comprehensive review is needed. Works will not commence till the tool demonstrates that the appropriate measures have been implemented to eliminate the gap.
2. When issues/gaps are identified, and as part of the broader ESMP, a Capacity Management Plan will be developed.
3. Special attention will be given to the public/private partnership processes ahead. This means that public and private institutions may be limited in their ability to share information with the public and intervene in specific investment operation. Confidentiality agreements may also prevent the population from being able to ascertain all information. In order to alleviate future potential negative impacts, legal agreements with public institutions will need to be negotiated in a way which allows public input into decision-making before their approval. Consequently, the agreements with private investors will explicitly enumerate all direct and indirect financial

responsibilities for the government and investors in the case that any of the activities implemented within a specific investment do not go as expected (i.e. if the power production forecasts are not as expected, the operational costs increase at a later stage, market demand for electricity falls, or the infrastructure falls into disuse).

4. In order to ensure the active consideration of the environmental and social safeguards from the unique experience/perspective of all peoples, the Stakeholder Engagement Plan along the project will need to demonstrate that all stakeholder groups listed in the ESMF are being involved across all components and activities of the project and their inputs are taken into consideration. This will be ensured by fulfilling the provisions established in the ESMF, Attachment V, Stakeholder Engagement Checklist.
5. An independent expert is highly recommended to verify the environmental and social safeguards.

RISK 2: Risk of project activities not being safeguards responsive during the project life cycle.

This risk arises from the following questions in the checklist:

P.5 inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities?
P.6 restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?

Assessment and management: See tools implemented for the Programmatic Principles 3 and 5, Standards 3-7.

1. To ensure the universal respect for, and observance of, human rights and fundamental freedoms for all, mechanisms to account for concerns raised by stakeholders along the project cycle will be established. They include the tools for those to be translated into formal decision- making actions, to provide a safe and anonymous context when needed, and are designed with a focus on potentially disadvantaged groups, including the disabled, women and girls, indigenous peoples (if applicable), among other groups as established in the ESMF. This is achieved through public information disclosure of the project, access to appropriate grievance resolution procedures for hearing and jointly addressing complaints and disputes, and investigation of suspected non-compliance. Tools involve the SEP, SRM, GRM, SECU at the project design phase (PPG) and at each sub-project.
2. Additionally, the project includes a tailored plan to include representatives of varied stakeholders, including disadvantaged groups, in all awareness, capacity development, consultation and M&E activities to know and claim their rights and level up their participation. These are established in the Stakeholder Engagement Checklist to be implemented for each consultation exercise and the Stakeholder Engagement Plan.
3. All project actors will sign a safeguards commitment letter to implement all measures stipulated

in the ESMF.

4. Special attention will be given to the often-polarized debate between the pursuit of sustainable development in local communities versus utility- scale of renewable energy development in the region. The M&E systems will need to focus the effort to translate the benefits of the project into real services/improvements to the communities and where possible with the multiplier effect on benefits – in particular related to environmental and disadvantaged groups at and near the mini-grid facility sites where inconveniences rising form the project will need to be reduced.
5. Special attention will be given to those sites and/or beneficiaries not chosen by the project to prevent retaliation against the chosen ones.
6. Special attention should be given to activities supporting policy and/or sector reforms to include the environmental and social requirements and measures in order to minimise the unforseen risks of future projects across the country during the scale-up of activities as the market develops, ideally requirements and measures will aim to replicate the UNDP environmental and social standards. The screening of such initiatives should apply a cascading logic analysis that seeks to anticipate potential adverse impacts that may inadvertently flow from supported policy reforms and the replicability of projects.
7. In order facilitate a good management, each activity within each component will include environmental and social monitored markers to ensure that duty-bearers are safeguards-responsive.

RISK 3: Risk of exclusion of affected stakeholders due to their vulnerability and/or potential concerns about the project

This risk arises from the following questions in the checklist:

P.4 Adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?
P.13 exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?
P.14 grievances or objections from potentially affected stakeholders?
P.15 risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?

Risk examples:

- For example, failure to use resident labor during construction could create frustrations/community tensions and even local conflicts that may result into vandalism, sabotage, looting or destruction/degradation/misalignment of the project. This can be prevented by establishing a formal and transparent criteria to justify the selection process before screening the final sites.
- For example, users may be trapped in an inconvenient mini-grid system in the long term due to

the project when/if the energetic scenario develops by the arrival of the grid to the local area.

Assessment and Management:

1. At the stakeholder engagement process, special attention will be given to be well balanced at the vertical (i.e. are all the groups affected well represented) and horizontal levels (i.e. weight of voice within platform) of representation, appropriate channels of communication will be provided for each represented group (i.e. in particular for the informal sector that may be illiterate), and will be provided with an active role throughout all phases of the Project as possible (i.e. from the design to M&E and deactivation). For that a consultation and communication plan will be prepared and implemented at the investment preparation phase as well as the implementation phase to clearly disseminate information and gather feedback in time regarding the needs and priorities of all stakeholders. All sessions and communication modes will be offered also in local languages and follow the customs and norms of local communities, and will be required for each site in the Project which will address the specific risks. For example, through a public log in the Project areas that will be available to local communities and individuals to gather and resolve their concerns. This will be achieved through the implementation of the Stakeholder Engagement Checklist to be implemented for each consultation exercise and the Stakeholder Engagement Plan.
2. Consider positive discrimination and/or reservations for disadvantaged groups for the participation at specific phases of the Project (i.e. establish a minimum amount of people trained, workers... in the project from these groups identified, and the provisions of capacities to ensure adequate performance); so that achievements are ensured by design not by accident, and to avoid that employment of these groups is actually overlooked, or on the low skill end.
3. Stand-alone systems will be required to be built according to national the national requirements to guarantee the option to connect to the main grid if and when it expands into the project area.
4. Special attention will be given to propose a cohort of students prioritised to be trained from the disadvantaged groups identified in the local Stakeholder Engagement Plan. This applies to vocational training institutions for mini-grid focused tracks and any other training considered in the project.
5. Special attention will be given to include a list of proposals within the activity that will have a particular focus on interventions that address the particular energy needs of the most disadvantaged groups.

RISK 4: Risk on Women

P.9 adverse impacts on gender equality and/or the situation of women and girls?

P.10 reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?

P.11 limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who

depend on these resources for their livelihoods and well being

Assessment and Management:
A Gender Analysis and Action Plan has been conducted to assess and manage this risk at the PPG phase. All measures are established in the pertinent documentation resulting from that study..

RISK 5: Risk of damage to biodiversity and natural resources due to land changes and new productive uses of the energy

This risk arises from the following questions in the checklist:

1.1 adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes
1.2 activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?
1.3 changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)
1.4 risks to endangered species (e.g. reduction, encroachment on habitat)?
1.5 exacerbation of illegal wildlife trade?
1.6 introduction of invasive alien species?
1.8 harvesting of natural forests, plantation development, or reforestation?
1.9 significant agricultural production?
1.10 animal husbandry or harvesting of fish populations or other aquatic species?
1.11 significant extraction, diversion or containment of surface or ground water?
For example, construction of dams, reservoirs, river basin developments, groundwater extraction
1.12 handling or utilization of genetically modified organisms/living modified organisms?
1.13 utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)
Risk examples:

- For example, for mini-grids considering productive use of the energy, when bringing energy services to the fishers, they may use it for accelerated reproductive purposes to grow the stock, which may lead to an imbalance of fish populations and other subsequent aquatic species due to the growth of stock in the project's area of influence.
- For example, after the cycle of the project the land used for the mini-grid plant will not be recoverable for agricultural uses.
- For example, the project may also cause visual impact by altering the landscape of their locations. This could be a permanent impact unless decommissioning ensures the

dismantling of the plant.

- For example, water diversion, impoundment, alteration of use and/or supply, may be necessary to prepare the site and/or run the mini-grid adequately. This is especially important in mini-grids considering hydropower systems and especially critical in arid climates.

Management and Assessment:

1. This will be achieved on first instance through the criteria established in the ESMF to limit certain activities (exclusion list, concerning list and preferential list).
2. As part of the broader ESIA, specific environmental measures to identify issues/gaps against the UNDP requirements will be analysed through a Natural Resources, Biodiversity, Ecosystems and Ecosystem Services Impact Assessment.
3. When issues/gaps are identified, and as part of the broader ESMP, a subsequent Natural Resources, Biodiversity, Ecosystems and Ecosystem Services Management Plan will be developed.
4. Ensure that qualified professionals assist in conducting assessments and in the design and implementation of mitigation and monitoring plans.
5. Special attention to systems joining and/or replacing existing fossil fuel based (i.e. Diesel) minigrids. In these cases, the project will include a strategy for phasing out the fossil fuel system to minimise the impact in biodiversity and natural resources (i.e. the generator at the end of its lifetime).
6. In light of the difficulty encountered in the past of operators to remaining financially viable in similar activities, provisions to prevent the potential implications of the project in the environmental scope will be put in place at the early stage. This can be easily managed through the clauses of the agreement at its establishment. For example, to ensure the provisions for the system to be dismantled in a safe way if the organisations cease the activity due to such financial difficulties and ensuring that the developers recovery (I.e. re-forest) those locations that had to be altered but that do not require to remain as such once the works have been completed.

RISK 6: Adverse transboundary environmental concerns.

This risk arises from the following questions in the checklist:

1.14 adverse transboundary or global environmental concerns?

Risk examples:

- For example, for PV solar, the primary supplier of PV panels to the project is an organisation based in a distant foreign territory to the country of implementation of the project. They outsource the main component of the panels and manufacture them in a context where

neither the country nor the organisation adherence to recognised sustainability principles that relate to good practices on biodiversity and natural resources management. And, are actually regarded as very challenging and have historically been weak in the context of the country and/or organisation and/or activity (i.e. mining the material that conforms the panel). In this case the effects on biodiversity and the natural resources of such mining, manufacturing and/or transport of PV panels are known and may be significant.

Management and Assessment:

1. Special attention to be given to mini-grids with a productive use entail unforeseen impacts according to the type of sector and activity to develop. And at the decommission stage and/or end-of-life of the equipment/chemicals, these may end up outside the project area of influence without proper safe management.

RISK 7: Risk due to electrical shocks/effects on fauna, flora and people

This risk arises from the following questions in the checklist:

3.2 air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?
3.6 adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?

Management and Assessment:

1. The project will apply recognized industry standards suitable to the nature of the activity to tackle this risk.
2. Special attention will be given to prevent the fauna, flora and people are in contact to high voltage, or by atmospheric discharges or surges. This can be easily mitigated applying physical protection measures around the system.
3. Special attention to be given to inside wiring and customer awareness on the safe use of electricity. This may result in injury and/or fires and impact on household assets. The impact may be usually from moderate to low. Mitigation options:

(i) Inside wiring is the responsibility of the customer, and/or
(ii) The responsibility of the developer and/or
(iii) Sign off on safety and appropriate wiring by qualified technician is required alternatively the government will have specific requirements for specifications that needs to be complied with as well as checks. Consumer awareness can be addressed by local workshops and signs in local language, and incorporated into education at schools.

RISK 8: Risk of local climate change events and weather & hydro related disasters

This risk arises from the following questions in the checklist:

2.1 areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunami or volcanic eruptions?

Assessment and Management:

1. As part of the broader ESIA, local potential climate change events will be studied through a Climate Risk Assessment and a Disaster Risk Assessment to identify issues/gaps against the UNDP requirements.
2. When issues/gaps are found to meet the UNDP requirements, and as part of the broader ESMP, a Climate Management Plan will be developed for expected scenarios.
3. Additionally, within the ESMP, an Emergency Plan will be developed against unexpected project scenarios regarding weather and hydrometeorological related risks.
4. See Attachment XIII to ESMF Special attention due to weather to know the main weather-related events to pay special attention to that are particular to each technology type.
5. The existing and projected climatic data will be used to ensure that the chosen sites are not highly affected by irregular rain trends and are least vulnerable to projected changes in temperature or wind regimes. This is particularly important when the minigrids are associated with productive uses in agriculture.

RISK 9: Risk of overestimated emissions due to embedded activities

This risk arises from the following questions in the checklist:

2.4 increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?

Assessment and Management:

1. The ProDoc demonstrates that mini-grids will result in positive climate change impacts. For example, the GHG emission reductions are calculated by means of the UNDP tools (GEF standard methodology developed by the STAP) and appropriate M&E at the project level. The analysis includes only direct emissions, however, the project may be incurring in significant indirect emissions through the following project tasks involving indirect emissions from the embedded carbon emissions:

a. Supply chain and/or transboundary effects from manufacturing/constructing/transporting/replacement/decommissioning the equipment, mainly PV solar panels, where the primary supplier of these to the project is an organisation based in a distant foreign territory to the country of implementation of the project. They outsource the main component of the panels and manufacture them in a context where neither the country nor the organisation adherence to recognised sustainability principles that relate to good practices on climate change. And, are actually regarded as very challenging and have historically been weak in the context of the country and/or organisation and/or activity (i.e. mining the material that conforms the panel). In this case the effects on climate change of such mining, manufacturing and/or transport of PV panels are known and may be varied and significant. In this case, as part of the broader ESIA, an additional exercise for the quantification of GHG emission reductions for scope 2 and 3 (equivalent to a Life Cycle Analysis, from cradle to grave) will be required (i.e. based on World Bank guidance on the social value of carbon). This will lead to the marginal revision of the net project emissions without environmental costs. For equipment to be procured, that analysis can be alternatively mitigated using only zero/low emissions certified resources.
b. Preparation of land (I.e. land clearance) and supply of the new demand generated.

RISK 10: Risk of overestimated emissions due to aggregation[8] to a third-party project

This risk arises from the following questions in the checklist:

2.4 increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?

Assessment and Management:

1. The quantification of the emissions reduced by the AMP should include only emissions form the activities within the project. To prevent this, the project will clearly discern tasks for both projects and will assign a proportional contribution to each project to demonstrate that the emission reductions assigned to the AMP is reasonable to its additional role to the third-party project. An example would be a AMP activity that contributes to an existing solar PV mini-grid in a pilot site with equipment to expand the capacity.

[8] As noted previously in this ESMF, the term 'aggregation" and "aggregated' used along this ESMF refers to the bundling potential of small activities. The only exceptionality is the use of this term in the risks identified in the SESP for each Child Project to refer to project activities overlayed onto pre-existing (already-constructed) mini-grids systems.

RISK 11: Risk on the community due to project infrastructure and hazardous materials (mainly batteries, e-waste and chemicals for land clearance)

This risk arises from the following questions in the checklist:

3.1 construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)
3.2 air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?
3.3 harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?
3.5 transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?

Management and Assessment:

1. See Attachment to ESMF- Negative_Impacts_by_technology to know the main potential pollution and energy efficiency related issues on the community to pay special attention to by technology type.
2. The internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines, will be followed. As part of the broader ESIA, this will be achieved through a Pollution and Resource Efficiency Assessment that will analyze:
    a. Use and consumption of land/soils, energy, water, and other resources and material inputs, and their ambient considerations,
    b. Waste, including hazardous and non-hazardous, and definition of a Waste Management Plan if applicable,
    c. Hazardous materials, including pesticides, in that case an Integrated Pest Management (IPM) plan and Integrated Vector Management (IVM) plan.
    d. Other discharges to land/soils, or water.
3. At the construction and decommission phase, site preparations (i.e. land clearance and levelling of terraces) will generate local dust, local nuisance, and local disturbance of soil. Similarly, at the operation phases, soil pollution due to the waste resulting from the rejects materials from the installations is envisaged. However, considering the nature of works and materials to be used, it is not envisaged that pollution of soils, air and water will occur outside the sites of works. This can be easily mitigated using only certified environmentally responsible (i.e. Energy Star label, Cradle to Cradle Certification, etc...) resources.
4. Special attention will be given to systems joining and/or replacing existing fossil fuel (I.e. Diesel) minigrids. In these cases, the project will include a strategy for phasing out the fossil fuel system (i.e. the generator at the end of its lifetime).
5. Special attention will be given to electric and electronic equipment and appliances at the end of its lifetime, like for example batteries. The recommendations of "E-waste Management

Recommendations for Beyond the Grid Fund in Africa Program will be followed. For example, certified disposal companies will dispose them if available, and/or alternatively, they will be sent back to manufacturers for disposal or recycling. Ideally, this should be agreed at the procurement phase of such products to secure an appropriate route in the future.

6. In light of the difficulty encountered in the past of operators to remaining financially viable in similar activities, provisions to prevent the potential implications in the environmental scope will be put in place. This can be easily managed through the clauses of the agreement at its establishment. For example, to ensure the system will be dismantled in an safe way if the organisations cease the activity due to such financial difficulties.

RISK 12: Ambient perturbance on the community due to intense works locally at construction and decommissioning, and new economic activities subsequent from productive use of the energy

This risk arises from the following questions in the checklist:

3.2 air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?
3.6 adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?

Risk examples:

- For example, because new accesses have been built or it is more transited to install the mini-grid infrastructure, the community may have to interact with more and heavier traffic. This may lead to more accidents among the community.
- For example, at the construction/decommission phase, the use of moving machine e.g. vehicles and construction machines, will result into nuisance in form of release of dust, noise and vibrations to which people will be exposed to.
- For example: For mini-grids including biogas systems, at the operational phase the expected potential health and safety risks due to biological hazards are related, for example, to contamination with pathogens, particularly if sewage is involved and long exposure to leaking gas occurs.

Assessment:

1. As part of the broader ESIA, a Community Hazard Assessment, and a Community Health Impact Assessment.
2. See "Attachment-III-to-Annex_6-SESP-Negative_Impacts_by_technology" to know the main impacts on the community to pay special attention to that are particular to each technology type.

Management:

1. And as part of the broader ESMP, specific measures will be required for each site in the project that will address these specific risks:
    a. A Community Hazard Management Plan, and a Community Health Management Plan for predictable issues.
    b. An Emergency Plan will be developed against unexpected project scenarios so as to protect community health, safety and security. This includes unforeseen adverse scenarios that may affect the community and, consequently, the progress of the project (i.e. COVID).
2. Special attention will be given to:
    a. The electrical mechanisms of the mini-grid systems to prevent, for example, poor wiring and defective electric wires, outlets close to water, wet hands, electrical fires, inquisitive young children, extension cords, electrical fires...
    b. For mini-grids including biogas systems: During the operational phase, safety risks may be related typically to the proliferation of bacteria, flies, and soil/water infiltration. On the other hand, proper operation of the sites will reduce the impact of uncontrolled organic waste on the environment.
    c. Accidental health risks due to failure of structural elements, mainly wiring affecting the wider community and the central structure affecting the personnel.
    d. Systems joining and/or replacing existing fossil fuel based (I.e. Diesel) mini-grids: In these cases, the project will include a strategy for phasing out the fossil fuel in a way that is safe, secure and healthy for the community (i.e. the generator at the end of its lifetime).
    e. In light of the difficulty encountered in the past of operators to remaining financially viable in similar activities, provisions to prevent the potential implications in the social scope will be put in place. This can be easily managed through the clauses of the agreement at its establishment. For example, to ensure the system will be dismantled in an safe way if the organisations cease the activity due to such financial difficulties.

RISK 13: Risk on community health, safety and/or security due to the influx of people, mainly project workers and other new comers subsequent to the new economic activities resulting from the productive use of the energy

This risk arises from the following questions in the checklist:

3.7 influx of project workers to project areas?
P.12 exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.

Assessment:

1. As part of the broader ESIA, a Community Hazard Assessment, and a Community Health Impact Assessment on this aspect will be generated.

Management:

1. And as part of the broader ESMP, specific measures will be required for each site in the project that will address these specific risks:
    a. A Community Hazard Management Plan, and a Community Health Management Plan for predictable issues, including the spread of COVID, sexual diseases/awareness and community growth planning for a controlled and satisfactory inclusion of such new comers to the area.

RISK 14: Risk on damage of cultural heritage

This risk arises from the following questions in the checklist:

4.1 activities adjacent to or within a Cultural Heritage site?
4.2 significant excavations, demolitions, movement of earth, flooding or other environmental changes?
4.3 adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)
4.4 alterations to landscapes and natural features with cultural significance?
4.5 utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?

Risk examples:

- For example, because of the new energy activities and/or services in the area, a change on the cultural traditions may occur, which would lead to the loos of, for example, the living cultural landscape, based on systems of highly adapted mountain farming, pasture, and/or extensive forestry developed in single alpine valleys since its occupation centuries ago, which may lead to an imbalance of certain populations and other subsequent species due to the change of stock in the project's area of influence.

- For example, at the baseline scenario potentially the land may have significant topographic reliefs that may need to be removed/excavated to implement the project.

- For example, forest area is deforested to install the minigrid plant.

Management and Assessment:

1. As part of the broader ESIA, specific measures will be required for each site in the Project that will address these specific issues/gaps against the UNDP requirements through a Cultural Heritage Analysis.
2. Considering the nature of works, materials and methods used to run a mini-grid, it is not envisaged that potential damage of cultural heritage will occur outside the sites of works.

RISK 15: Risk of physical displacement and loss of livelihood due to eviction from land

This risk arises from the following questions in the checklist:

5.1 temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?
5.3 risk of forced evictions?
5.4 impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?

Management and Assessment:

1. Specific measures through a Social and Environmental Impact Assessment.
2. A subsequent Social and Environmental Management Plan.
3. During the assessment of physical displacement, special attention will be given to consider all feasible project alternatives and measures to avoid physical displacement. Where displacement cannot be avoided, utilize experienced professionals in establishing baseline information, designing displacement activities and assessing potential risks and impacts. Identify potentially affected persons, lands, and assets through census, socio-economic surveys and evaluations, and asset inventories, including claims of affected groups not present as part of census (e.g. seasonal resource users). Clarify the tenure rights and relationships of potentially affected persons to affected lands and resources, including recognition of customary rights and collective or communal forms of land tenure. The project will provide to the affected stakeholders, as part of the project budget, access to effective remedies and to timely and affordable independent expertise, including legal counsel, to provide an understanding of rights and options. Similarly, it will establish the conditions for calculating and evaluating compensation in case of involuntary resettlement and land acquisition, and improve support for resettlement and will reinforce sanction mechanisms in case of non-compliance.
4. During the management of physical displacement, and as part of the monitoring process, special attention will be given to ex-post evaluation of livelihood levels for those affected will be required to examine if objectives of this Standard were met. The objective is to recognize and

respect the prohibition on forced evictions, to anticipate and avoid, or, when avoidance is not possible, minimize adverse social and economic impacts from land or resource acquisition or restrictions on land or resource use, to enhance and restore the livelihoods of all displaced persons, and to improve the standards of living and overall socioeconomic status of displaced poor and other displaced groups and to support efforts to progressively realize the rights to adequate housing and adequate standards of living for displaced populations.

RISK 16: Risk of economic displacement due to loss of income from fuel selling

This risk arises from the following questions in the checklist:

5.2 economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?

Management and Assessment:

1. Specific measures through a Social and Environmental Impact Assessment,
2. A subsequent Social and Environmental Management Plan.
3. As part of the broader SESA, a Strategic Displacement Assessment will look into the upstream impacts, i.e. in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
4. As part of the broader ESMP, if significant economic displacement is identified, a Livelihood Action Plan. Special attention will be given to social marginalised groups especially poor men and women earning a living at the baseline from selling fuel/energy. However, these fuel sub-streams will not be required by the project system. Therefore, economic displacement may be a risk because the new energy supply system will likely reduce the demand for such pre-existing fuel significantly and restrict the access to the project area.
5. During the assessment and management of economic displacement, special attention will be given to the financial structure of the project. Many of the risks that renewable energy projects face are common and known beyond this business. Regardless of the final energy use, the size, the financial structure of the project, and technology used by the project, the project will have in place the control mechanisms and allocation of risks to the appropriate parties. See Attachment XI to ESMF – Financial Project Risks to know in detail the main risks and their management.
6. During the management of economic displacement, and as part of the monitoring process, special attention will be given to ex-post evaluation of livelihood levels for those affected will be required to examine if objectives of this Standard were met. The objective is to recognize and respect the prohibition on forced evictions, to anticipate and avoid, or, when avoidance is not possible, minimize adverse social and economic impacts from land or resource acquisition or restrictions on land or resource use, to enhance and restore the livelihoods of all displaced

persons, and to improve the standards of living and overall socioeconomic status of displaced poor and other displaced groups and to support efforts to progressively realize the rights to adequate housing and adequate standards of living for displaced populations.

7. Special attention will be given to consider innovative solutions to minimise economic displacement, for example by introducing agrivoltaic techniques as part of the project design to prevent scarifying land use that was productive before the project.

RISK 17: Risk of economic displacement towards the payment of energy services replacing the previous options

This risk arises from the following questions in the checklist:

5.2 economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?

Management and Assessment:

1. Use flexible financial mechanisms like for example Pay As You Go that requires pre-payment so will stop people running up large bills.
2. Conduct comprehensive surveys to measure ability and willingness to pay of customers.
3. Regularly review tariffs based on customer feedback.

RISK 18: Risk to indigenous peoples

This risk arises from the following questions in the checklist:

6.1 areas where indigenous peoples are present (including project area of influence)?

6.2 activities located on lands and territories claimed by indigenous peoples?

6.3 impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?

If the answer to screening question 6.3 is “yes”, then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk

6.4 the absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?

6.5 the utilization and/or commercial development of natural resources on lands and territories

claimed by indigenous peoples?

6.6 forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?

Consider, and where appropriate ensure, consistency with the answers under Standard 5 above

6.7 adverse impacts on the development priorities of indigenous peoples as defined by them?

6.8 risks to the physical and cultural survival of indigenous peoples?

6.9 impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?

Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.

Assessment and Management for countries WITH the involvement of an Indigenous Peoples Expert at the PPG phase (Sudan, Burkina Faso, Nigeria, Madagascar and Ethiopia):

An Indigenous Peoples Analysis and Planning Framework (IPPF, or other title) has been conducted to assess and manage this risk at the PPG phase. All measures are established in the pertinent documentation resulting from that study.

Assessment and Management for countries WITHOUT the involvement of an Indigenous Peoples Expert at the PPG phase:

To ensure that indigenous peoples are identified down to the local level and fully involved along the project cycle, appropriate mechanisms to account for priorities and concerns raised by this sector along the project cycle need to be translated into formal studies and decision-making actions. For that, and similarly to the studies conducted by the Indigenous Peoples expert for other cases, as part of the broader ESIA, each pilot will conduct a research to identify whether these groups are found in the local area, and/or they depend on the resources in such area through the provisions of the questionnaire in Attachment XIII. If so, the case will be studied through an Indigenous Peoples Analysis, and, as part of the broader ESMP, a specific Indigenous Peoples Plan will be developed similarly as for other countries within this AMP program that identified Indigenous Peoples during the PIF phase, including the implementation of a Free Prior Informed Consent document (FPIC). An indicative outline of an Indigenous People's Plan is found in Attachment XIV.

RISK 19: Risk on labour opportunity and working conditions

This risk arises from the following questions in the checklist:

7.1 working conditions that do not meet minimum national labour laws and international commitments?

7.2 working conditions that may deny freedom of association and collective bargaining?

7.3 use of child labour?

7.4 use of forced labour?

7.5 discriminatory working conditions and/or lack of equal opportunity?

7.6 occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?

Management and Assessment:

1. As part of the broader ESIA, an Assessment on Labour and Working Conditions will be conducted to identify issues/gaps against the UNDP requirements on terms and conditions of employment, non-discrimination and equal opportunities, workers' organizations, measures against child labor and forced labor, grievance redress mechanism for labor disputes, occupational safety (i.e. procurement of personal protective equipment) and health measures for the workers (direct and contract).
2. As part of the broader SESA, a Strategic Labour and Working Conditions Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
3. When issues/gap are identified, and as part of the broader ESMP, these will be managed by a Labor Management Procedures (LMP).
4. Considering the nature of works, materials and methods used to run a mini-grid, it is not envisaged that potential risks on labour and working conditions will occur outside the sites of works, except for transboundary effects upstream, i.e. from the supply chain, partnerships, and in case of joining/support to other systems (i.e. non-UNDP projects, existing diesel mini-grids...). This can be easily mitigated using only certified socially responsible resources.
5. Special attention will be given to:
    a. The productive use of the energy served by the project. The project will work closely with relevant authorities and the affected groups and other local civil society organisations (CSOs) to include the relevant direct and indirect market management stakeholders.
    b. The tasks related to ongoing operations and maintenance (normally tree cutting and regular line maintenance). The most common issues relate to electrical shocks and falls resulting in injury or death of workers. Mitigation:
        a. Operational procedures and safety information, and training of maintenance workers.
        b. Equipment
        c. Supervision arrangements by the developers that workers comply
    c. In all cases, the existing informal/traditional energy/fuel suppliers, with particular focus on disenfranchised people, to incorporate them in the integrated management of the new energy systems in order to minimize the impact on them.

        I. Changes in the management of energy supply towards a more formalised and technical system may displace women and favour male leadership as managerial positions and the energy sector itself are typically covered by men due to pre-existing conditions.
        II. The use of sensitizing approaches to the workers against the potential risks at work, provide treatment in case of accidents at work.
        III. Some of the existing informal/traditional energy/fuel suppliers, will be trained for the project.

IV. The working agreement will include clauses on workers' conditions and management, child protection, and gender-based violence prevention in all contracts; in parallel to the provision of awareness/training to the to all contractors, workers, and local residents; and (d) the setup of an accessible and accountable mechanism to ensure that any incident related to workers will be addressed in an effective manner with sufficient social sensibility.

RISK 20: Risk on pollution and resource efficiency

This risk arises from the following questions in the checklist:

1.7 adverse impacts on soils?
8.1 the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?
8.2 the generation of waste (both hazardous and non-hazardous)?
8.3 the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?
8.4 the use of chemicals or materials subject to international bans or phase-outs?
For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention
8.5 the application of pesticides that may have a negative effect on the environment or human health?
8.6 significant consumption of raw materials, energy, and/or water?

Management and Assessment:

1. See Attachment to ESMF- Negative Impact by technology to know the main potential pollution and energy efficiency related issues on the community to pay special attention to by technology type.
2. The internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines, will be followed. As part of the broader ESIA, this will be achieved through a Pollution and Resource Efficiency Assessment that will analyze:
    a. Use and consumption of land/soils, energy, water, and other resources and material inputs, and their ambient considerations,
    b. Waste, including hazardous and non-hazardous, and definition of a Waste Management Plan if applicable,
    c. Hazardous materials, including pesticides, in that case an Integrated Pest Management (IPM) plan and Integrated Vector Management (IVM) plan.
    d. Other discharges to land/soils, or water.
3. At the construction and decommission phase, site preparations (i.e. land clearance and levelling of terraces) will generate local dust, local nuisance, and local disturbance of soil. Similarly, at the

operation phases, soil pollution due to the waste resulting from the rejects materials from the installations is envisaged. However, considering the nature of works and materials to be used, it is not envisaged that pollution of soils, air and water will occur outside the sites of works. This can be easily mitigated using only certified environmentally responsible (i.e. Energy Star label, Cradle to Cradle Certification, etc...) resources.

4. Special attention will be given to systems joining and/or replacing existing fossil fuel (I.e. Diesel) minigrids. In these cases, the project will include a strategy for phasing out the fossil fuel system (i.e. the generator at the end of its lifetime).
5. Special attention will be given to electric and electronic equipment and appliances at the end of its lifetime, like for example batteries. The recommendations of "E-waste Management Recommendations for Beyond the Grid Fund in Africa Program will be followed. For example, certified disposal companies will dispose them if available, and/or alternatively, they will be sent back to manufacturers for disposal or recycling. Ideally, this should be agreed at the procurement phase of such products to secure an appropriate route in the future.
6. In light of the difficulty encountered in the past of operators to remaining financially viable in similar activities, provisions to prevent the potential implications in the environmental scope will be put in place. This can be easily managed through the clauses of the agreement at its establishment. For example, to ensure the system will be dismantled in a safe way if the organisations cease the activity due to such financial difficulties.

RISK 21: Upstream risks due to policy or regulatory changes

This risk arises from the project level standards from 1 to 8 due to the escalated effect that project activities related to changes on policy and/or regulations could entail in the country during the project life or later.

Assessment and Management:

1. A SESA will be conducted on activities supporting policy and/or sector reforms to include the requirements and measures in order to minimise these unforseen risks of future projects across the country during the scale-up of activities as the market develops, ideally requirements and measures will aim to replicate the UNDP environmental and social standards. The screening of such initiatives should apply a cascading logic analysis that seeks to anticipate potential adverse impacts that may inadvertently flow from supported policy reforms and the replicability of projects. The upstream risks to be assessed will be as follows:
    a. Damage to biodiversity and natural resources due to land changes and new productive uses of the energy.
    b. Indirect development that may arise as a consequence of the introduction of electricity and/or heat supply in the vicinity of communities where those services were not available before the Project:
        i. As part of the broader SESA, a Strategic Stakeholder Assessment will look into

the upstream impacts.

ii. When issues/gap are identified, and as part of the broader ESMP, a subsequent Stakeholder Management Plan will be developed.

c. Adverse environmental transboundary effect.
    i. As part of the broader SESA, a Strategic Natural Resources, Biodiversity, Ecosystems and Ecosystem Services Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supportig other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. When issues/gap are identified, and as part of the broader ESMP, a subsequent Natural Resources, Biodiversity, Ecosystems and Ecosystem Services Management Plan will be developed.
d. Overestimated emmissions due to embedded activities
    i. As part of the broader SESA, a Strategic Climate and Disaster Risk Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. When issues/gaps are found to meet the UNDP requirements, and as part of the broader ESMP, a Climate Management Plan will be developed for expected scenarios.
e. Risk on the community due to project infrastructure and hazardous materials (mainly batteries, e-waste and chemicals for land clearance)
    i. As part of the broader SESA, a Strategic Pollution and Resource Efficiency Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. And as part of the broader ESMP, subsequently, when issues/gap are identified, a Pollution and Resource Efficiency Management Plan will gather those aspects that need to be managed.
    iii. Additionally, within the ESMP, an Emergency Plan will be developed against unexpected project scenarios regarding pollution.
f. Ambient perturbance on the community due to intense works locally at construction and decommissioning, and new economic activities subsequent from productive use of the energy
    i. As part of the broader SESA, a Strategic Hazard and Community Health Assessment to other systems (i.e. non-UNDP projects, existing diesel mini-grids...)
g. Damage on cultural heritage
    i. As part of the broader SESA, a Strategic Cultural Heritage Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. When issues/gaps are identified, and as part of the broader ESMP, a

subsequent Heritage Impact Assessment and Management Plan.

h. Physical displacement and loss of livelihood due to eviction from land
    i. As part of the broader SESA, a Strategic Displacement Assessment will look into the upstream impacts, i.e. in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. As part of the broader ESMP, if physical displacement is identified at any scale, a Resettlement Action Plan.
    iii. As part of the broader ESMP, if significant loss of livelihood is identified due to this physical displacement, a Livelihood Action Plan will be conducted.
i. Economic displacement due to loss of income from fuel selling
    i. As part of the broader SESA, a Strategic Displacement Assessment will look into the upstream impacts, i.e. in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. As part of the broader ESMP, if significant economic displacement is identified, a Livelihood Action Plan. Special attention will be given to social marginalised groups especially poor men and women earning a living at the baseline from selling fuel/energy. However, these fuel sub-streams will not be required by the project system. Therefore, economic displacement may be a risk because the new energy supply system will likely reduce the demand for such pre-existing fuel significantly and restrict the access to the project area.
j. Labour opportunity and working conditions
    i. As part of the broader SESA, a Strategic Labour and Working Conditions Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. When issues/gap are identified, and as part of the broader ESMP, these will be managed by a Labor Management Procedures (LMP).
k. Pollution and resource efficiency
    i. As part of the broader SESA, a Strategic Pollution and Resource Efficiency Assessment will look into the upstream impacts, i.e. from the supply chain, partnerships, and in case of joining/supporting other systems (i.e. non-UNDP projects, existing diesel mini-grids...).
    ii. Subsequently, when issues/gap are identified, as part of the broader ESMP, a Pollution and Resource Efficiency Management Plan will gather those aspects that need to be managed.
    iii. Additionally, within the ESMP, an Emergency Plan will be developed against unexpected project scenarios regarding pollution.

Attachment III - Legal Framework of safeguards

Somalia

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

A number of international agreements exist, and although binding on Somalia there has been little progress in implementation due to the chronic conflict, the lack of recognition for Somaliland and the applicability in Puntland. Such international environment agreements relate to: a)Biodiversity, b)Desertification, c)Endangered Species, d)Law of the Sea, e)Ozone Layer Protection and f)Marine Dumping.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- Treaty for the Establishment of the EAC (1999: Article 120(c))
- EAC's Strategic Plan for Gender, Youth, Children, Social Protection and Community Development (2010
- EAC Social Development Policy Framework (2013
- EAC Child Policy (2016
- Africa Union
- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [Signed 1991]
- African Charter on Human and People's Right (1981) [1985]
- African charter on the Rights and welfare of the child (1990) [Signed 1991]
- African Charter on the Rights of Women in Africa (2003) [Signed 2006]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) [Signed 2009]
- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1975]
- International Covenant on Economic, Social and Cultural Rights (1996) [1990]
- Convention on the Rights of the Child (1989) [2015]
- International Labour Organisation

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

In order to implement a mini-grid in Somalia an environmental permit is required from the national environmental authority. However, further refinement of activities related to the pilots will be needed to be evaluated and policy and legislation with respect to the environment is under development as the current is weak and outdated. Furthermore, the only social assessment potentially required relies within the environmental compliance currently drafted by the Government.

Pre-1991 environmental laws date back to the 1960s, 70s &80s. Since the collapse of the state, no laws were passed, at least in the last three decades. Further, until the establishment of the Ministry of Environment and Disaster Management in 2005, Somalia lacked any central body responsible for environmental matters. Currently, there are a number of institutions both at the Federal and state levels that would play key roles in the management of the environment. However, the existing legislative framework is at the state level, namely, Somaliland and Puntland. The said two states are the only ones in Somalia who have enacted legislations related to the environment. Nevertheless, enforcement remains weak. Therefore, adopting a national environmental policy and enacting up-to-date legislations are badly needed in order to address the environmental challenges stated earlier.
The instruments used to enforce the policies are as follows:

- Standards:

  The policy is to prepare and enact the following regulations:
  ·National Environmental Standards for Air Quality
  ·National Environmental Standard for Sources of Drinking Water
  ·National Environmental Standards for Telecommunication Facilities (equipments: towers, antennas etc)
  ·National Environmental Standards for Marine aquaculture
  ·National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
  ·National Environmental Standards for Plantation Forestry

- Environmental Impact Assessment: Environmental Impact Assessment (EIA) is a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment. It will be the principal methodology for appraising and reviewing new projects. The policy is to require that public and private projects that are likely to have significant effects on the environment be made subject to an assessment prior to Development Consent or licence to proceed with the project.
- Environmental Awareness, Education, and Information to enhancing environmental awareness as is essential to harmonize patterns of individual behaviour with the requirements of environmental conservation.

- Partnerships and Stakeholder Involvement: Conservation of the environment requires the participation of multiple stakeholders, who may bring to bear their respective resources, competencies, and perspectives, so that the outcomes of partnerships are superior to those of each acting alone.

- Capacity Building: The multi-stakeholder character of environmental issues and continuous developments in the field of environment, make it necessary to have a continuing focus on capacity building in all concerned institutions: public, private,voluntary, academic, research,and the media.

The implementation of the policy is:

- ·To prepare and enact environmental legilations at Federal and State levels;
- ·To review exisiting environmental legislations;
- ·The legislations that shall be enacted include but not limited to:
    - National Environmental Management Act
    - Forestry and Wildlife Act
    - Land Management Act
    - Mineral and Petroleum Act
    - Marine Conservation Act
    - Waste (solid & liquid) Management Act

In Puntland an Environmental Policy was produced in 2014 and framework documents for EIA guidelines and regulations put in place.

In Somaliland the National Environment Policy (NEP) provides a framework for the sustainable management of the territory's environment and natural resources. The policy seeks to ensure that the territory's natural resource assets retain their integrity to support the needs of the current and future generations. This policy, developed in 2015 by the Ministry of Environment and Rural Development, addresses the nexus between poverty alleviation, food security and national development objectives. The policy emphasises on the need to establish new prospects for the improvement to the standard of living, which enable people to become self -sufficient and realize their own potential without damaging the environment. The policy seeks to catalyse the implementation of sustainable environmental, social and economic development initiatives for equitable benefits sharing. The policy advocates for community participation, information dissemination, environmental education and awareness raising and gender equality in order to fully harness the Somaliland's "latent capacity" in this regard.

For all Somali territories the institutions at National, Regional and District Levels are responsible for the implementation and monitoring compliance of both national and international agreements as shown below and include:

1.The Minister, in consultation with the Parliamentary Environment committee and civil society organizations working in the environment shall establish Environmental Watch Councils at National level (NEWC).

2.The MNR (Min. for Natural Resources), the MoERD (Min. for Environment and Rural Development) in Somaliland and the MoEWT (Min. for Environment, Wildlife and Tourism) in Puntland with consultation with Regional Authorities, in consultation with civil society, at the Regional level, and communities shall establish the Regional Watch Councils (REWC).

3.The MNR, MoERD and MOEWT in consultation with the Local Government Councils/ District Governor, local CSO/CBOs and the community shall establish the District Environment and Environment Watch Council (DEWC).

In the absence of national regulatory framework for sustainable environment, and other than the pieces of legislation available in some states as discussed above, Somalia has a constitution that contains a number of parameters relevant for various operational activities in the country.

Eswatini

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1969]
- International Covenant on Economic, Social and Cultural Rights (1996) [2004]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [2004]
- Convention on the Rights of the Child (1989) [1995]
- Convention on the Rights of Persons with Disabilities (2006) [2012]
- International Labour Organisation
- Protocol on Employment and Labour
- Code on Social Security
- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [2001]

- African Charter on Human and People's Right (1981) [1995]
- African charter on the Rights and welfare of the child (1990) [2012]
- African Charter on the Rights of Women in Africa (2003) [2012]
- African Youth Charter (2006) [2012]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) [2012]

The country is also currently a party to the following international environmental conventions:

- Biodiversity: Convention on Biological Diversity (CBD), 1992
- Hazardous Wastes: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1989
- Hazardous Wastes in Africa: Bamako Convention on the Ban of Import of Hazardous Wastes into Africa
- Ozone: Montreal Protocol on Substances that Deplete the Ozone Layer
- Desertification: Convention to Combat Desertification
- Game Protection: Convention on the International Trade on Endangered Species CITES)
- Capacity Building and Institutional Strengthening: PADELIA

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

In order to implement a mini-grid in Eswatini an environmental permit is required from the national environmental authority. This may be expected for the project activities related to the pilot 3 only though further refinement of activities related to pilot 1 and 2 will be needed to be evaluated. In order to obtain an Environmental Permit, an EIA is required.

A project developer should present a project brief to the environmental authorities and this will be classified into one of the following categories:

(a) as a category 1 project if the authorising agency considers that the proposed project is unlikely to have any significant adverse environmental impacts
(b) as a category 2 project if the authorising agency considers that the proposed project is likely to have some significant adverse environmental impacts but that the impacts are relatively well-known and easy to predict and the measures which can be taken to prevent or mitigate these impacts are well-know;
(c) as a category 3 project if the authorising agency considers that the proposed project is likely to have significant adverse environmental impacts and that in-depth study is required to determine the scale, extent and significance of the impacts and to identify appropriate mitigation measures.

Where a project is classified under category 1, no further requirements are applicable to continue the

project.
Where a project is classified under category 2, the proponent shall prepare an IEE report and a CMP.
Where a project is classified under category 3, before preparing an EIA report and CMP (comprehensive mitigation plan), effect a consultation process to involve or include concerned or affected Government agencies local authorities, non-governmental organizations and any other interested and affected persons to help determine the scope and effect of the project or work to be carried out.

According to the preliminary assessment discussed with the authorities during the stakeholder interviews, the type of activities included in the project could be leading to categorisation 2.

There is acknowledgement by the authorities stakeholders of the value and desire to ensure implementation of social safeguards and gender mainstreaming in project implementation, however they are generally not explicitly defined in existing frameworks. Therefore, no other specific social requirements beyond the those potentially applicable under the environmental safeguards have been identified.

The institutional arrangements relevant to the compliance of such requirements are as follows:

This Constitution established in 2005 is the supreme law of The state of Eswatini (formerly Swaziland) and is the only absolute monarchy left in Africa. The king also appoints the prime minister.

The Ministry of Natural Resources and Energy has the following departments, Energy, Valuation, Land Administration, Surveyor General's Department, Department of Water Affairs (DWA), Geological Survey Conveyancing, Deeds, and Mining Department.

The Ministry of Tourism & Environmental Affairs have the following departments, Department of Tourism, Department of Forestry, and Department of Meteorology. They also have the following parastatals, Swaziland Tourism Authority, Swaziland Environment Authority, Swaziland National Trust Commission and Piggs Peak Hotel and Casino.

The main legal requirement to comply with is the Environmental Management Act (EMA, 2002), which acts as a guide to the environmental issues in the country.

According to the Environmental Audit Assessment and Review Regulations (EAARR) of 2000 promulgated under the Environmental Management Act (EMA) of 2002 and the interviews conducted to the national authority, the implementation of mini-grids for energy use may have an impact on the environment. Thus, an Environmental and Social Impact Assessment must be conducted prior to the issuing of the Environmental Compliance Certificate (ECC) by Eswatini Environment Authority (EEA) for project implementation. Section 32 of the Environmental Management Act, 2002 emphasizes that no person shall undertake any project that may have a detrimental effect on the environment without the written approval of the EEA.

Djibouti

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [2011]
- International Covenant on Economic, Social and Cultural Rights (1996) [2002]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1998]
- Convention on the Rights of the Child (1989) [1980]
- Convention on the Rights of Persons with Disabilities (2006) [2012]
- International Labour Org
- Treaty for the Establishment of the EAC (1999: Article 120(c))
- EAC's Strategic Plan for Gender, Youth, Children, Social Protection and Community Development (2010
- EAC Social Development Policy Framework (2013
- EAC Child Policy (2016
- Africa Union
- Constitutive Act of the African Union [2000]
- Treaty establishing the African Economic Union [Signed 1991]
- African Charter on Human and People's Right (1981) [1991]
- African charter on the Rights and welfare of the child (1990) [2011]
- African Charter on the Rights of Women in Africa (2003) [2005]
- African Youth Charter (2006) [2008]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) {Signed 2015]

The international environmental initiatives where this country could not be identified at this stage.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

In order to implement a mini-grid in Djibouti an environmental permit is required from the national

environmental authority. However, further refinement of activities related to the pilots will be needed to be evaluated.

Comoros

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [2004]
- International Covenant on Economic, Social and Cultural Rights (1996) [Signed 2008]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1994]
- Convention on the Rights of the Child (1989) [1993]
- International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families, Articles. (1990)(no 13) [Signed 2000]
- Convention on the Rights of Persons with Disabilities (2006) [2016]
- International Labour Org
- Treaty for the Establishment of the EAC (1999: Article 120(c))
- EAC's Strategic Plan for Gender, Youth, Children, Social Protection and Community Development (2010
- EAC Social Development Policy Framework (2013
- EAC Child Policy (2016
- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [1994]
- African Charter on Human and People's Right (1981) [1986]
- African charter on the Rights and welfare of the child (1990) [2004]
- African Charter on the Rights of Women in Africa (2003) [2004]
- African Youth Charter (2006) {Signed 2010]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) {Signed 2010]

In the environmental scope three main international conventions directly concerned with the conservation of biological diversity have been ratified, namely the Convention on Biological Diversity (5 June 1992), the Convention on Climate Change (4 June 1992) and the Convention to Combat Desertification.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

In order to implement a mini-grid in Comoros an Environmental Permit is required from the national environmental authority. This may be expected for the project activities related to the pilot 1 and potentially pilot 2 and pilot 3 but further refinement of these last two activities will be needed to be evaluated. In order to obtain an Environmental Permit, an EIA is required.

In accordance with Article 12 the EIA must contain a description of the current state of the environment, an evaluation of the potential effects of the proposed works on the environment and a description of the mitigation measures proposed to minimise the potential effects.

In addition, legislation has been passed which provides for the protection of species or flora and fauna in the country.

The Comoros regained relative political stability after the adoption of the Fomboni Agreement in 2001 (which led to four consecutive democratic transitions), although sociopolitical tensions remain. A referendum held on July 30, 2018, endorsed a constitutional change to the presidential rotation system following a controversial national conference. Presidential elections were held in the Comoros on March 24, 2019, and President Azali Assoumani was reelected in the first round of voting. However, political uncertainties about the new government's ambitions and intra-governmental dynamics and changes in current times are a risk to the success of the project, for example, lack of inter-ministerial coordination and greater focus on investment projects than on the institutional/policy aspects that would make those investments sustainable.

The National Environmental Policy of the Union of the Comoros was prepared and adopted in 1993 by Decree No. 93-214/PR, based on the document entitled "Diagnosis of the State of the Environment in the Comoros". The country's 2001 Constitution, in its Preamble, proclaims "the right to a healthy environment and the duty of all to safeguard that environment". Adopted in 1994, its Environmental Code declares that environmental protection is in "the public interest" and recalls the right to a healthy environment and the obligation to safeguard it. Article 18 of the Environmental Code also stipulates that the State must ensure the protection of the soil and subsoil, water resources and the marine environment, the atmosphere and biological diversity.

Between 1993 and 2001, the Union of the Comoros adopted a policy framework that resulted in the preparation and adoption of a National Environmental Policy, an Environmental Action Plan and a National Strategy and Action Plan for the Conservation and Sustainable Management of Biodiversity. A legislative and regulatory framework was put in place with the adoption and promulgation of the framework law on the environment and some implementing regulations relating to the creation of the Mohéli Marine Park, species protection and an Environmental Impact Assessment (EIA)in October 1994 (Decree No. 94/100/PR). The framework law takes into account sustainable development, impact assessments, biological diversity, protection of the terrestrial and marine environment, and protected

areas.

In summary, the current national legislation relevant for the safeguards of the projects is as follows:

National legislation
Environment Framework Law N°094 -018 of 22 June 1994;
Law No. 88-006 on the legal regime for reforestation, reforestation and forest management
Decree N°01/31/MPE/CAB on the protection of species of wild fauna and flora of the Comoros
Decree of 4 February 1911 on the reorganization of land ownership
Decree of 06 January 1935 regulating expropriation on grounds of public utility
Law No. 88-015/AF on general measures to prevent occupational hazards and improve working conditions
Labour Code N°84 -108: Health and Hygiene
Decree of 03 May 1903 concerning the quarrying
Law No. 94-022 of 27 June 1994 on the protection of the Comorian cultural heritage

Policy Frameworks:
Accelerated Sustainable Development Growth Strategy (SCA2D)
National Energy Strategy
National Environmental Policy
National Equity, Equality and Gender Policy
National Health Policy

Malawi

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1996]
- International Covenant on Economic, Social and Cultural Rights (1996) [1993]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1987]
- Convention on the Rights of the Child (1989) [1991]
- Convention on the Rights of Persons with Disabilities (2006) [2009]
- International Labour Org
- Protocol on Employment and Labour

- Code on Social Security
- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [1993]
- African Charter on Human and People's Right (1981) [1989]
- African charter on the Rights and welfare of the child (1990) [1999]
- African Charter on the Rights of Women in Africa (2003) [2005]
- African Youth Charter (2006) [2010]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) [2013]

The key international environmental conventions include; Convention of Nature and Natural Resources; African Convention on Conservation of Nature and Natural Resources, Convention on Biological Diversity; international Plant Protection; Convention on Fishing and Conservation of Fishing resources of the High Seas; Convention on International Trade in Endangered Species(CITES); Convention on the conservation of Migratory Species of wild Animals (Bonn Convention);UN Convention to Combat Desertification; Kyoto protocol; and Vienna Convention & Montreal Protocol(Ozone Layer).

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

No environmental or social permits from the national framework in this country are expected to be required in order to conduct any of the project activities.

A thorough environmental and social analysis has been conducted recently by the third-party project to which this project will be supporting for pilot 1. The ESMP available contains the details of the study. No changes have been identified since and they all constitute the legal framework relevant to this project.

In summary the following are environmental policies and legislation available in the country relevant for mini-grids: the Constitution of the Republic of Malawi of 1995, the Roads Authority policy statements, the National Environmental Policy (NEP) of 2004, the Environment Management Act (EMA) of 1996, the National Forestry Policy of 1996, the National Forestry Act of 1997, the National Land Policy of 2002, the Land Act of 2016, the Customary Land Act of 2016, the Land Acquisition Act of 1971, the National Land Resources Management Policy and Strategy of 1998, The Land Acquisition Act of 1971, The Malawi Forestry Act of 1997 the Water Resources Management Policy and Strategy of 1994, the Water Resources Act of 1969, The National Local Government Act, 1998, the Gender Equality Act , 2013, the Monuments and Relics Act , 1990,the Physical Planning Act, the Malawi Disaster Management Policy, 2015, the Physical Planning Act , 2016, the Occupational Health and Welfare Act, 1997, the Public roads Act(Cap.69:02) the Bank's Environmental Policy, THE Bank's Involuntary Resettlement Policy and

the Environmental and Social Assessment Procedures (ESAP).

Within the country system, the Environment Management Act, 1996 of Malawi provides that the project requires an Impact Assessment based on its description. In this context, the Environmental Affairs Department (EAD) exercises the primary responsibility of enforcing and regulating environmental protection requirements.

Nigeria

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [1991]
- African Charter on Human and People's Right (1981) [1983]
- African charter on the Rights and welfare of the child (1990) [2001]
- African Charter on the Rights of Women in Africa (2003) [2004]
- African Youth Charter (2006) [2009]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) [2012]
- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1967]
- International Covenant on Economic, Social and Cultural Rights (1996) [1993]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1985]
- Convention on the Rights of the Child (1989) [1991]
- International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families, Articles. (1990)(no 13) [2009]
- Convention on the Rights of Persons with Disabilities (2006) [2010]

This country is signatory to most of the international and regional agreements on environmental protections, the most important of which are: (i) the UNESCO Paris Agreement concerning the Protection of the World Cultural and Natural Heritage; (ii) the CITES Convention, the United Nations Rio Convention on Biological Diversity(CBD); (iii) United Nations Framework Convention on Climate

Change(UNFCCC); (iv) Rotterdam Convention on PIC and the Stockholm Convention on POPs(v) Geneva Tropical Timber Agreement; (vi) Maputo African Convention on the Conservation of Nature and Natural Resources to ensure the sustainable development of African economies.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

In order to implement a mini-grid in Nigeria an Environmental and Social Impact Assessment Certificate is required by the Federal Ministry of Environment (FME). This is expected for the project activities related to the pilots under activity Activitiy 1.1.1. - Output 1.2. Pilot sites will be assigned based on calls for proposals therefore further refinement of this requirement will be evaluated in detail when more information is known about the chosen site/s.

The requirements of Nigerian legislation in force mainly concern: (i) Environmental Impact Assessment (EIA) ActNo. 86 of 1992, which restricts public or private development projects without prior consideration of the environmental impact; (ii) National Environmental Standards and Regulations Enforcement Agency Law of 2007, which empowers the Agency to enforce all national environmental laws and regulations (except those related to the oil and gas sector) and international treaties or conventions to which Nigeria is signatory. The Agency has issued 24 environmental regulations which prescribe pollution abatement measures, limits and other safeguards for various industries and for noise, surface and ground water discharges among others. These mainly concern: (i)national environmental regulations concerning the protection of wetlands, river banks and lake shores(2009) andii) National Environmental(Protection of Watershed, Mountainous, Hillyand Catchment Areas) Regulations, 2009 with a direct impact on the proposed project; (iii) National Electric Power Sector Reform Act(2005), which established the National Electricity Power Authority(NEPA) and requires all entities intending to generate, transmit and or distribute power to include an EIA Approval Certificate, or Proof of submission and acceptance for processing of the EIA report to the Ministry of Environment in their applications; (iv) National Policy on the Environment, with the goal of achieving sustainable development for the country and emphasis on (a) securing for all Nigerians a quality environment adequate for their health and well-being; (b) conserving and using the environment and natural resources for the benefit of present and future generations; and (c) restoring, maintaining and enhancing ecosystems and ecological processes essential for the functioning of the biosphere and for the preservation of biological diversity and to adopt the principle of optimum sustainable yield in the use of natural resources and ecosystems; and (v) the Land Use Act (1978), which recognizes the rights of all Nigerians to use and enjoy land and the natural fruits thereof in sufficient quality to enable them to provide for the sustenance of themselves and their families.

The implementer partner has acceptable Legal and Institutional Frameworks in the country to ensure compliance on environmental issues. When it comes to social issues there is no single point ministry dealing with social impacts and risk management in Nigeria. The provisions of the new World Bank

Environmental and Social Framework (ESF) that relate to social aspects such as labor, protection of vulnerable groups, social inclusion, community health & safety and land and livelihoods are under the purview of different ministries or department and agencies such as Ministry of Women Affairs & Social Development, Department of Lands, Ministry of Labor etc. Typically, these Ministries/Departments do not have policies and regulatory provisions that address the safeguards requirements holistically.

Burkina Faso

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- Constitutive Act of the African Union [2001]
- Treaty establishing the African Economic Union [1992]
- African Charter on Human and People's Right (1981)[1984]
- African charter on the Rights and welfare of the child (1990)[1992]
- African Charter on the Rights of Women in Africa (2003)[2006]
- African Youth Charter (2006)[2008]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention)[2012]
- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1974]
- International Covenant on Economic, Social and Cultural Rights (1996) [1999]
- Optional protocol to the Economic, Cultural & Social Rights (2008) (no 3)(a) (Signed 2012]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1987]
- Convention on the Rights of the Child (1989) [1990]
- International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families, Articles. (1990)(no 13) [2003]
- Convention on the Rights of Persons with Disabilities (2006) [2009]
- Maternity Protection Convention, 2000, (No. 183) [2013]

This country is signatory to most of the international and regional agreements on environmental protections, the most important of which are: (i) the UNESCO Paris Agreement concerning the Protection of the World Cultural and Natural Heritage; (ii) the CITES Convention, the United Nations Rio Convention on Biological Diversity(CBD); (iii) United Nations Framework Convention on Climate

Change(UNFCCC); (iv) Rotterdam Convention on PIC and the Stockholm Convention on POPs(v) Geneva Tropical Timber Agreement; (vi) Maputo African Convention on the Conservation of Nature and Natural Resources to ensure the sustainable development of African economies.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

It is expected that the implementation of mini-grids will be subjected to Environmental Impact study Notice. This is based on the environmental studies required by national government the Code of Environment, 2004 and its associated decree of October 22, 2015 on procedural requirements for Environmental assessment studies when the subproject category is "A," and in some cases, projects appearing in category "B". Also, for small-scale projects among those in category "B," and Environmental Impact Study Notice may be a requirement.

The country requires to submit an environmental impact study or an environmental impacts notice request the prior opinion of the Minister in charge of environmental protection before the activity starts.

The main national legal framework is summarised below:
•The law No.006-2013/AN of April 02, 2013 bearing the code of the environment in Burkina Faso
•The law No.003-2011/AN of April 2011 concerning the forest code in Burkina Faso
•The Law No.034-2012/AN concerning agrarian and land reorganization in Burkina Faso,
•The law of No.002-2001/AN of February 8,2001 on the Framework Law relating to Water Management promulgated by Decree 2001-126/PRES of 3 April 2001.
•The decree No.2015 2015-1187/PRESTRANS/PM/MERH/MATD/MMME/MS/MARHASA.MRA/MICA/MHU/MIDT/MCT of October 22, 2015, laying down the conditions and procedures for carrying out and validating the strategic Environmental Assessment, the Environmental and social Impact Assessment study and Notice; and
•The Decree No.2001-409/PRES/PM/MECVMARHRH/MID/MATD of July 03, 2007 laying down modalities for carrying out the Environmental Audit.
•The National Policy of land security in rural areas (PNSFMR)
•The National Population Policy (PNP)
•The National Planning Policy (PNAT)
•The National Gender Policy (PNG)
•The National Public Health Policy (PNHP)
•The National Plan for the adoption of Climate Change (NAP)

The Ministry of Environment, Green Economy and Climate Change (MEEVCC) is responsible for the implementation of the Government's policy on environment and sustainable development, Ratachee at MEEVCC, the National Bureau of Environment Assessments (BUNEE) is the technical body for monitoring the implementation of the ESIAs in Burkina Faso.

Ethiopia

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

The country is signatory of the following international conventions and protocols on the environmental and social scopes:

- International Labour Organisation (ILO) Forced Labour Convention, 1930 (No. 29);
- ILO Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87);
- ILO Right to Organise and Collective Bargaining Convention, 1949 (No. 98);
- ILO Equal Remuneration Convention, 1951 (No. 100);
- ILO Abolition of Forced Labour Convention, 1957 (No. 105);
- ILO Discrimination (Employment and Occupation) Convention, 1958 (No. 111);
- ILO Minimum Age Convention, 1973 (No. 138);
- ILO Worst Forms of Child Labour Convention, 1999 (No. 182);
- ILO Right of Association (Agriculture) Convention, 1921 (No. 11);
- ILO Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144);
- The United Nations Convention on the Rights of the Child, 1990;
- The Stockholm Convention on Persistent Organic Pollutants;
- Convention on Biological Diversity;
- The United Nations Framework Convention on Climate Change, 1992;
- The United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa;
- The United Nations Convention for the Safeguarding of the Intangible Cultural Heritage;
- The United Nations Convention on the Protection and Promotion of the Diversity of Cultural Expressions;
- The United Nations Convention Concerning the Protection of World Cultural and National Heritage;
- The Vienna Convention for the Protection of the Ozone Layer;
- Montreal Protocol on Substances that Deplete the Ozone Layer;
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and
- Pesticides in International Trade;
- Libreville Declaration on Health and Environment in Africa;
- The United Nations Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora, 1973;
- The United Nations Convention on Biological Diversity (Rio Convention), 1992.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

A thorough environmental and social analysis is being conducted recently by the World Bank for the ADELE project (P171742), which aims at supporting common goals using similar strategies. This analysis is publicly available and therefore it constitutes the legal framework relevant to this project too.

Sudan

International framework

International conventions and processes that Sudan is a signatory to that may be relevant to the project include:

- African Commission on Human and Peoples' Rights (ACHPR): Sudan is member and previously reported to the commission up to 2012.
- Universal Periodic Review (UPR): Sudan continues its engagement with UPR processes and did report in November 2021.[9]
- ICCPR - International Covenant on Civil and Political Rights
- CEDAW - Convention on the Elimination of All Forms of Discrimination against Women
- ICERD - International Convention on the Elimination of All Forms of Racial Discrimination
- ICESCR - International Covenant on Economic, Social and Cultural Rights
- CRC - Convention on the Rights of the Child
- CRPD - Convention on the Rights of Persons with Disabilities
- ILO C111 - Discrimination (Employment and Occupation) Convention
- ILO C138 - Minimum Age Convention (*Minimum age specified: 14 years*)
- ILO C182 - Worst Forms of Child Labour Convention
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

There have been some efforts to strengthen systems, monitoring and administration around applying international treaties in Sudan. However it is unclear, especially with ongoing instability, to what degree international law is implemented.

National legal framework

[9] https://www.ohchr.org/en/hrbodies/upr/pages/sdindex.aspx

Due to the 2019 coup in Sudan, the state currently utilised an Interim Constitutional Declaration of August 2019, in place of the 2005 Interim National Constitution of the Republic of the Sudan. This replaced the 2005 Interim National Constitution of the Republic of the Sudan, which in turn replaces the 1998 Constitution. A constitution for the transition from military to democratic sure is under development. As such, the legal institutional framework of Sudan faces instability.

Given the political situation around the drafting of the Interim Constitutional Declaration, as expected it focuses on defining roles and powers of governance in Sudan. Of relevance to this project, the Interim Constitutional Declaration does declare that the State must "perform an active role in social welfare and achieve social development by striving to provide healthcare, education, housing and social security, and work on maintaining a clean natural environment and biodiversity in the country and protecting and developing it in a manner that guarantees the future of generations" (Article 7). A bill on the national human rights commission is under consideration.

It also realises women's rights as follows (Article 48):

> "(1) The state shall protect women's rights as set forth in international and regional agreements ratified by Sudan.
> (2) The state shall guarantee to both men and women the equal right to enjoy all civil, political, social, cultural, and economic rights, including the right to equal pay for equal work, and other professional benefits.
> (3) The state shall guarantee women's rights in all fields through positive discrimination.
> (4) The state shall work to combat harmful customs and traditions that reduce the dignity and status of women.
> (5) The state shall provide free healthcare for motherhood, childhood and pregnant women."

The **2001 Electricity Act** remains in force and does not address environmental or social concerns, although a new, 2019, Electricity Act has been drafted and is in the approval stages

A **1986 Land Appropriation Act** defines the right of the government to sell and rent government land, as well as to allocate it for specific uses and to grant licenses to investors.

The **1999 Investment Encouragement Act** provides some guidelines regarding feasibility studies, land allocation for investment purposes and referral to the Minister of Environment, but provides limited specific measures and processes.

The **2001 Environment Protection Act** replaced the Higher Council for Environment and Natural Resources Act of 1991 and defines environmental protection at federal and state levels, as well as duties of the Higher Council for Environment and Natural Resources. The Higher Council has the mandate to coordinate the work of the State Environmental Councils, form committees to coordinate environmental work and is the national focal point for international and regional environmental conventions and treaties. This includes "determining development and rationalising the means of use, management and protection, from deterioration thereof, in an integrated and balanced form" and Environmental Impact Assessment (EIA) processes.

The **2003 Local Government Act** replaces the 1998 Local Government Act and promotes devolution of power to locality levels.

Madagascar

International framework

This country is not adhered to any international initiative applying requirements to the implementation of mini-grids. Therefore, no environmental or social permits from international framework for this country are expected to be required in order to conduct any of the project activities.

Regarding the social safeguards, the country is signatory of a diverse range of regional (Africa) and international agreements:

- Treaty for the Establishment of the EAC (1999: Article 120(c))
- EAC's Strategic Plan for Gender, Youth, Children, Social Protection and Community Development (2010)
- EAC Social Development Policy Framework (2013
- EAC Child Policy (2016
- Constitutive Act of the African Union [2003]
- Treaty establishing the African Economic Union [Signed 1991]
- African Charter on Human and People's Right (1981) [1992]
- African charter on the Rights and welfare of the child (1990) [2005]
- African Charter on the Rights of Women in Africa (2003) [Signed 2004]
- African Youth Charter (2006) {Signed 2014]
- African Union Convention for the Protection and Assistance of Internally Displaces Persons in Africa (Kampala Convention) [Signed 2014]
- UN International Convention on the Elimination of All Forms of Racial Discrimination. (1966)(No 2) [1969]
- International Covenant on Economic, Social and Cultural Rights (1996) [1971]
- Optional protocol to the Economic, Cultural & Social Rights (2008) (no 3)(a) [Signed 2009]
- Convention on the Elimination of All Forms of Discrimination Against Women (1966) [1989]
- Convention on the Rights of the Child (1989) [1991]
- International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families, Articles. (1990)(no 13) [2015]
- Convention on the Rights of Persons with Disabilities (2006) [2015]
- The Equality of Treatment (Social Security) Convention, 1962 (No. 118) [1964]

The country is also currently a party to an international environmental legal framework, with regard to conventions, agreements and treaties, development policies, programmes, plans and strategies, and national legislation and regulations on environmental and social protection.

National legal framework

This country has not yet established specific environmental and social requirements for the implementation of mini-grids. Existing requirements are embraced under the generic country framework.

No environmental or social permits from the national framework in this country are expected to be required in order to conduct any of the project activities because the project will be only additional electrical productive related equipment (no batteries, no solar panels), to existing solar PV mini-grid, for residential and/or productive purposes.

In any case, a summary of the contry legal framework is shown below for information purposes only:

In accordance with Article 10 of Law 90-033 of 21 December 1990, amended by Acts 97 012 of 06 June 1997 and No. 2004-015 of 19 August 2004, public or private investment projects that could harm the environment must be subject to an Environmental Impact Assessment (EIA).

Decree MECIE No.99-954 of 15 December 1999, amended by Decree No. 2004-167 of 03 February 2004, sets out the rules and procedures for proponents to follow for the implementation of an EIA.

This decree defines, among other things, the scope of impact studies, the projects to be evaluated, the process to be followed, the content of the study, the evaluation procedure and public participation in the evaluation. The proponent's impact assessment must meet the requirements of the decree and the project will be evaluated by the Technical Evaluation Committee or CTE according to the rules set out in it.

Furthermore, the law No. 2017-020 of 10 April 2018 bearing the Electricity Code in Madagascar also stipulates that electricity generation, including from renewable energies, must be adapted to the means of transport and distribution, while guaranteeing compliance with the conditions of safety and security, including those provided by the environmental texts. Thus, any project must be accompanied by an environmental impact study.

The institutions involved in the process are:

- The National Office for the Environment, which is in charge of conducting the preliminary analysis to direct the holders either towards the completion of an environmental and social impact assessment or an Environmental Engagement Programme, to analyse the file of project owners, to issue the environmental permit, to validate and to monitor compliance with the environmental burden. He coordinates the activities of the Technical Evaluation Committee and the Environmental Monitoring Committee.
- The environmental unit of the Ministry of Energy and Hydrocarbons, which is also involved in the analysis of the EIS file and the monitoring of compliance with the environmental specifications.
- The ADER, which integrates environmental and social study into the investigation of the project owner's file for the approval or concession contract.

The Technical Evaluation Committee is an adhoc committee (Decree 4743/97/MINENV) is responsible for the evaluation of the file and in which the various representatives of the ministerial departments or other actors are represented.

The Environmental Monitoring Committee follows the file once the permit has been issued.

Attachment IV – Environmental and Social risks identified at PIF phase

Country	SESP-Question 4: Project Risk Level	SESP-Attachment 1: Risks Screening Checklist triggered	SESP-Question 2: List of risks analysed	SESP-QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?
Burkina Faso	Moderate	13	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Increased militancy and territorial gains Risk 4: Agriculture and vegetation Risk 5: Community health and safety issues Risk 6: The potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change Risk 7: The Project involves some infrastructure development	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency
Comoros	Moderate	14	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Localized pollution Risk 6: Water diversion or impoundment Risk 7: Adverse impacts to habitats (e.g. modified, natural, and critical habitats) Risk 8: Vulnerability to the potential impacts of climate change	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency
Djibouti	Moderate	12	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Localized Pollution	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency
Ethiopia	Moderate	14	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Social inclusion Risk 6: The potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change Risk 7: The Project involves some infrastructure development	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency
Eswatini	Moderate	11	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Localized pollution Risk 6: Water diversion or impoundment	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement
Malawi	Moderate	12	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions

			Risk 5: The potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change Risk 6: The Project involves some infrastructure development (e.g. dams, roads, buildings)	Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency (it is not checked but commented)
Nigeria	Moderate	12	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Localized pollution Risk 6: Water diversion or impoundment	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency (it is not checked but commented)
Somalia	Moderate	15	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: Weak labor practices Risk 6: Social conflict Risk 7: The potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change Risk 8: The Project involves some infrastructure development (e.g. dams, roads, buildings)	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7.Pollution Prevention and Resource Efficiency
Sudan	High Risk	12	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Conflict Risk 4: Agriculture and vegetation Risk 5: Community health and safety issues Risk 6: Localized Pollution Risk 7: Water Diversion or Impoundment Risk 8: Project might have unintentional impacts that will affect women in terms of access to resources, decision-making, and socio-economic benefits of the project.	
Madagascar	Moderate	11	Risk 1: Battery Disposal Risk 2: Land acquisition and resettlements Risk 3: Agriculture and vegetation Risk 4: Community health and safety issues Risk 5: The potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change Risk 6: The project involves some infrastructure development (e.g. dams, roads, buildings)	Principle 1: Human Rights Principle 2: Gender Equality and Women's Empowerment Standard 3. Community Health, Safety and Working Conditions Standard 5.Displacement and Resettlement Standard 7: Pollution Prevention and Resource Efficiency

Table 9 - Environmental and Social risks identified at PIF phase

Attachment V - Stakeholder Engagement Checklist

The events conducted for each project within the AMP have been designed at a high level of representatives, mainly from governmental related and development partners. To ensure an inclusive stakeholder plan at an early stage the focus will remain on achieving the fair participation of each stakeholder group up to the decision-making level. Expected collateral benefits of these to the project also serves to gain inspiration from each unique perspective and to incorporate ideas on how to be more transformative for a wider range of beneficiaries as well as identifying innovative actions towards the inclusion and benefit of disadvantaged groups.

List of stakeholders relevant to the Child Project. At least one representative per stakeholder group indicated here will be invited:

Group #	Group description
1	Women groups
2	Workers unions
3	Youth groups
4	Children rights groups
5	Human rights groups
6	Disable associations
7	Baseline energy supplier/s: 1. Informal suppliers, i.e wood/charcoal/diesel… sellers, likely defranquised women.
8	Baseline energy supplier/s: 2. Formal suppliers, if applicable, i.e. local shops/stations…
9	Baseline energy supplier/s: 3. Existing similar projects to the AMP (i.e. existing mini-grids), if applicable
10	Baseline energy supplier/s: 4. The big players on energy supply through the grid, if applicable
11	Sustainable Energy practicioners
12	Environment activists
13	Energy professionals
14	Energy Regulator/s
15	Land rights groups
16	Academics
17	Traditional local authorities (i.e. from tribal traditions like tribal elders)
18	Other minorities/vulnerable/self-defence groups (i.e. refugees, internally displaced, disable, indigenous, regions under-served, the poor, single headed households, orphaned families, the elderly, albinos, etc)

Table 10 - Stakeholder groups to consider

In order to measure the level of influence and independence of the stakeholders, each stakeholder group listed above will be identified indicating the nature of their organization. A well balanced representation of stakeholders groups as split below should be achieved unless justification is provided:

Group #	Influence (international, national, local)	Independence (Public institution, private company, NGO, etc)
1		
…		

Table 11 - Stakeholder's representation balance

For each consultation exercise, the following requirements will apply:

Requirement	Justify how the requirement has been satisfied	Verification by independent party (Satisfactory/Non-satisfactory)	Measures implemented to correct the non-satisfactory
Appropriateness of means chosen for the invitation to the event: 1. Invitation to be received by stakeholders 1 month ahead of event for those not familiar with the project. 2. Means of delivery include those non-digital for small/local/non-digitalised groups.			
In case of non-response from some group, how it has been followed up / facilitated their participation.			
The language of invitation and event/consultation is appropriate for the small/local/non-technical representatives.			
The format of the information disclosed is appropriate for the small/local/non-technical representatives.			
Means to be used to incorporate each stakeholder group input to influence the decision-making resulting from this consultation.			
COVID adjustment: We have no certainty whether physical gatherings will be possible. From the environmental and social safeguards, a clear burden for disadvantaged groups is that digital divide. Therefore, having digital means only will leave outside these groups. In order to secure the fair participation of all groups and the flow of information, what new possibilities and/or alternative appropriate ways have been implemented? For example, delivering the information through the local radio, paper posts on key local community places, word to mouth through local leaders, etc...			

The invitation informs the UNDP contact details (at least the Env&Soc safeguards expert email and a local phone number from the local consultant) in case they want to pro-actively contact us instead of the Government authorities involved in the project.			
The invitation prompts stakeholders to reply with their feedback, and ask them if the Env&Soc safeguards expert can contact them to gather their input/feedback and when/how is their preference.			
The invitation offers them for the Env&Soc safeguards expert and/or UNDP to be their "voice" if they have any limitations/concerns to participate in the workshop			
At the consultation event, stakeholders are also given the chance to express their feedback. For example, by allowing them to raise their hands.			
At the post-consultation stage, feedback continues to be open to collect input, also anonymously.			

Table 12 - Requirements for stakeholders consultations

Attachment VI - Safeguards implementation

As established in the ESMF procedures, this table informs the procedures that apply to each Component, Outcome and Output for each Child Project. Therefore, to implement an activity this will need to be identified under the corresponding Output here and subsequently this table indicates the procedures to be satisfied before such implementation.

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
Burkina Faso	Component 1 - Policy and Regulation	Stakeholder ownership in a national minigrid delivery model is advanced, and] appropriate policies and regulations are adopted to address barriers and facilitate investment in low-carbon minigrids with storage.	1.1	An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification					
			1.2	Formulation of rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data.					
			1.3	Domestication of quality standards for solar minigrid components, and institutional capacity of national standards organizations/bureau strengthened					
			1.4	Capacity building of public officials (regulator, ministries, agencies) and private sector to fully play their role (tariffs, design procurement/tender processes that incorporate cost-reduction levers and innovative business models etc.)					
			1.5	Operationalizing a certification scheme for installer building on ECREEE's Regional Certification Scheme					
			1.6	Light quantitative mini-grid DREI techno-economic analysis carried in Year 4					
	Component 2: Business Model Innovation with Private Sector	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-	2.1	Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids (in regions complementing WB and AfDB investments).					

Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
	carbon minigrid development	2.2	Capacity of winning tender bidders / new COOPELs and private sector actors (industry associations such as APER and others) strengthened to develop and implement innovative business models and cost-reduction levers.					
		2.3	Support provided to establish and grow a national industry association for private sector developers					
Component 3: Scaled-up Financing	Financial sector actors are ready to invest in a pipeline of low-carbon minigrids and concessional financial mechanisms are in place to incentivize scaled-up investment.	3.1	Domestic financial sector capacity-building on business and financing models for minigrids					
		3.2	General market intelligence study on minigrids in regions complementary to WB and AfDB investments prepared and disseminated amongst public officials and finance community					
		3.3	Support the implementation of a financial instrument to facilitate investment in minigrid					
Component 4: Digital Knowledge Management and Monitoring and Evaluation	Increased awareness and network opportunities in the minigrid market and among stakeholders, and lessons learned for scaling up rural electrification using solar PV-battery minigrids.	4.1	A Digital Strategy is developed and implemented, including linkages to and following guidance from the AMP Regional Project					
		4.2	Minigrids data management platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction.					
		4.3	A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project					
		4.4	M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation					
		4.5	Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
			4.6	Knowledge networks / Communities of Practice / industry associations / Other strengthened to promote minigrids development / rural energy access					
			4.7	Lessons learned captured and disseminated at all levels					
			4.8	Replication plan (including investment plan) for scaling up rural energy access developed					
Comoros	Component 1 -Policy and Regulation	Stakeholder ownership in a national minigrid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in low-carbon minigrids.	1.1	1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification					
			1.2	1.2. A review of the political and regulatory frameworks on the possible minigrid delivery models and suitable incentives is proposed in close collaboration with the National Dialogue Platform members and other development partners					
			1.3	1.3. Templates of tender documents and contracts for the implementation and operation of minigrids (between community and private operator) are prepared					
			1.4	1.4. Geospatial, techno-economic modelling of least-cost off-grid renewable electricity technologies (mini-grids, grid expansion, solar home systems)					
			1.5	1.5. Mini-grid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial de-risking instruments and contribute to AMP Flagship Report on Cost Reduction					
			1.6	1.6. Pre-feasibility studies conducted for selected mini-grid sites to enhance sector planning and decision-making on a delivery model for minigrid development					
			1.7	1.7. Institutional capacities at technical, managerial and regulatory levels, in particular to design procurement and tendering processes incorporating cost-cutting levers and innovative business models, are strengthened					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
			1.8	1.8. Public programmes (apprenticeships, certificates, university programs) to develop competitive, skilled labor market in minigrids facilitated					
	Component 2 - Project and Business Model Innovation with Private Sector Engagement	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon minigrid development	2.1	2.1. Opportunities to boost economic and social activities through electricity access and productive use, with focus on minigrids, are identified and innovation is promoted					
			2.2	2.2. Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in minigrids					
			2.3	2.3. Capacities of private minigrid developers and communities are strengthened					
			2.4	2.4. Group of Private Sector RE Services Providers is formalized, operational and its capacities are strengthened					
	Component 3 - Innovative Financing	Financial sector actors are ready to invest in a pipeline of low-carbon minigrids and concessional financial mechanisms are in place to incentivize scaled-up investment	3.1	3.1. The design and operations of a Minigrid Funding Facility under the Electricity Code is supported					
			3.2	3.2. General market intelligence study on minigrids prepared and disseminated amongst public officials and finance community					
			3.3	3.3. Capacities of the national financial sector (including philanthropic) in terms of business models and innovative financial solutions (including digital) in connection with minigrids are strengthened and facilitate access to financing					
	Component 4 - Knowledge Management and Monitoring & Evaluation	Data and digitalization are mainstreamed, across stakeholders, into local minigrid market development. Increased knowledge, awareness and network opportunities in the minigrid market and	4.1	4.1. A Digital Strategy is developed and implemented, including linkages to and following guidance from the regional project					
			4.2	4.2. Minigrids data management platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
		among stakeholders, including benefitting from linkages to international good practice	4.3	4.3. A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project					
			4.4	4.4. Monitoring and Evaluation (M&E) and Reporting, including (i) Conducting Inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-Term Evaluation and (iv) Terminal Evaluation					
			4.5	4.5. Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt					
			4.6	4.6. A Community of Practice to promote minigrids development and rural energy access is established, in close collaboration with Communities of Practice at AMP regional level and others at SIDS, regional, continental and international levels					
			4.7	4.7. Awareness raising campaigns, including lessons learned, are developed and disseminated at all levels nationally (incl. intervention zones) and with the regional project					
			4.8	4.8. Replication plan (including investment plan) for scaling up rural energy access developed					
Djibouti	Component 1: Policy and Regulation	Stakeholder ownership in a national mini-grid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in lowcarbon mini-grids.	1.1	1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification.					
			1.2	1.2. Mini-grid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial de-risking instruments and contribute to AMP Flagship Report on cost reduction.					

Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
		1.3	1.3. Institutional set-up for rural electrification assessed to support the establishment of a focal point for mini-grid development, and institutional capacity building provided on technical, managerial, and regulatory issues.					
		1.4	1.4. Public programmes (apprenticeships, certificates, university programs) to develop competitive, skilled labor market in the design, operation and maintenance of solar and hybrid mini-grids.					
		1.5	1.5. Domestication of quality standards for solar mini-grid components, and institutional capacity of national authorities in-charge, i.e. standards organizations/bureau, strengthened.					
Component 2: Business Model Innovation with Private Sector	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon mini-grid development.	2.1	2.1. Pilots for low-carbon mini-grids are developed, to demonstrate business models for off-grid electricity including productive use/innovative appliances, leading to cost-reduction in mini-grids.					
		2.2	2.2. Capacity of potential tender bidders (private sector developers) strengthened to consider innovative business models and cost-reduction levers.					
		2.3	2.3. Support provided to establish and grow a national industry association of private sector minigrid developers.					
Component 3: Scaled-up Financing	Financial sector actors are ready to invest in a pipeline of low-carbon mini-grids and concessional financial mechanisms are in place to incentivize scaled-up investment.	3.1	3.1. Design support, including development of operational guidance, provided for Mini-grid Funding Facility (MFF) or equivalent financial mechanism, under rural electrification agencies/funds, such as the National Development Fund (NDF) or the Guarantee Fund (GF).					
		3.2	3.2. Domestic financial sector capacity building on business and financing models for mini-grids					
		3.3	3.3. Capacity building provided to local minigrid developers and investors on measuring and reporting on impact indicators, building credibility in impact investment as an asset class.					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
	Component 4: Digital, Knowledge Management (KM) and Monitoring and Evaluation (M&E)	Digitalization and data are mainstreamed, across stakeholders, into local mini-grid market development. Increased knowledge, awareness and network opportunities in the mini-grid market and among stakeholders, including benefitting from linkages to international good practice.	4.1	4.1. A Project Digital Strategy is developed and implemented, including linkages to and following guidance from, the AMP Regional Project.					
			4.2	4.2. Mini-grids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction.					
			4.3	4.3. A Quality Assurance and Monitoring Framework (QAMF) for measuring, reporting and verification of the sustainable development impacts of all mini-grid pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the AMP Regional Project.					
			4.4	4.4. M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-term Review (MTR), and (iv) Terminal Evaluation (TE).					
			4.5	4.5. Engage with the AMP Regional Project, including, but not limited to, via (i) Participating in Communities of Practice (CoPs), and (ii) Capturing and sharing lessons learnt.					
Eswatini	Component 1	Stakeholder ownership in a national minigrid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in low-carbon minigrids.		1.1 Minigrid potential for the country mapped incorporating a value chain analysis, productive uses, MSME activity and mobile network coverage.					
				1.2 An active National Dialogue established among minigrid policy role-players in Eswatini with strong link to AMP regional project knowledge platform to formulate a national minigrid vision and roadmap.					
				1.3 Capacity building provided to public officials (regulator, ministries) to identify and incorporate cost-reduction levers and innovative business models.					
				1.4 Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments.					

Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
Component 2	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon minigrid developm ent.		2.1 Expansion of public utility minigrid pilot to incorporate Productive Use of Energy (PUE), innovative appliances and small business development, to demonstrate opportunities for improved feasibility of minigrid systems for rural households.					
			2.2 Greenfields pilot developed demonstrating productive uses use/innovative appliances and modular hardware/system design, leading to cost-reduction in minigrids.					
			2.3 Strengthen capacity of potential developers and operators to consider design parameters, innovative business models and cost-reduction levers, to improve project feasibility, with practical experience drawn from both pilot projects.					
Component 3	Digitalization and data mainstreamed, across stakeholders, into local minigrid market development. Increased knowledge, awareness and network opportunities in the minigrid market and among stakeholders, including benefitting from linkages to international good practice		3.1 A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of MGs, including GHG emission reductions is developed and operationalized based on standardized guidance from the regional project					
			3.2 A Project Digital Strategy is developed and implemented, including linkages to and following guidance from the regional project.					
			3.3 Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction					
			3.4: Active interface with regional project established, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt at national and regional level.					
			3.5 Knowledge Network established to promote MG development / rural energy access					
			3.6: M&E and Reporting including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, and (iii) Terminal Evaluation					
			3.7: Project Evaluations					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
Malawi	Component 1	Stakeholder ownership in a national minigrid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in low-carbon minigrids.		1.1 Energyscaping, Micro-, Small- and Medium Sized Enterprises and productive uses data digitized, mapped and shared on a suitable open access, online platform.					
				1.2 Mini-grid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments.					
				1.3 An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification.					
	Component 2	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon minigrid developm ent.		2.1: Extension of minigrid pilots with productive uses to identify business models suitable to small minigrid operations.					
				2.2: An online 'One Stop Information Centre' established with practicable guidance to developers for navigating unfamiliar and/or evolving regulatory processes from concept to commissioning.					
	Component 3	Data and digitalization are mainstreamed, across stakeholders, into local minigrid market development. Increased knowledge, awareness and network opportunities in the minigrid market and among stakeholders, including benefitting from linkages to international good practice.		3.1: Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of MGs, including GHG emission reductions is developed and operationalized based on standardized guidance from the regional project.					
				3.2: A Digital Strategy developed and implemented, including linkages to and following guidance from the regional project					
				3.3 Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction					
				3.4. Active interface with regional project established, including, but not limited to, via (i) participating in Communities of Practice, and (ii) capturing and sharing lessons learnt at national and regional level.					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
				3.5: Industry association strengthened to advocate for and actively engage Government on behalf of private sector minigrid developers and operators.					
				3.6: M&E and Reporting including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation					
Nigeria	Component 1 - Business Model Innovation with Private Sector Engagement	Innovative business models based on cost reduction operationalized to support and strengthen private participation in low-carbon minigrid development		Output 1.1: Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids and sufficient growing demand for minigrid systems					
				Output 1.2: Standardized online REF Calls for Proposals for enhanced transparency in developers bidding process					
				Output 1.3: Capacity of potential tender bidders (private sector developers) strengthened to consider innovative business models and cost-reduction levers					
				Output 1.4: Capacity of winning tender bidders (private sector developers) strengthened to develop and implement innovative business models and cost-reduction levers					
				Output 1.5: Capacity building provided to public officials (regulator, ministries) specifically to design procurement/tender processes that incorporate cost-reduction levers and innovative business models					
				Output 1.6: Scaled up support for upstream equipment manufacturers and suppliers					
	Component 2 - Scaled-up Financing	Financing mechanism and accompanying financial instruments in place to incentivize investments in the development of low-carbon minigrids		Output 2.1: Financial advisory committee established and operational					
				Output 2.2: Innovative financing solutions for minigrid development are identified and implemented through the REF					
				Output 2.3: General market intelligence study on minigrids prepared and disseminated amongst public officials and finance community					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
				Output 2.4: Feasibility study support provided to minigrid developers, creating a pipeline of investible assets					
				Output 2.5: Capacity building provide to minigrid developers and investors on measuring and reporting on impact indicators, building credibility in impact investment as an asset class					
	Component 3 - Digital, Knowledge Management, monitoring and evaluation and Scale up Strategy	Increased awareness and network opportunities in the minigrid market and among stakeholders, and lessons learned for scaling up rural electrification using low-carbon minigrids		Output 3.1: Inception workshop					
				Output 3.2: Project monitoring					
				Output 3.3: Project evaluations					
				Output 3.4: Lessons learned captured and disseminated at the national level					
				Output 3.5: Replication plan (including investment plan) for scaling up rural energy access developed					
				Output 3.6: Renewable Energy and minigrid Development Associations supported and strengthened to promote minigrid development					
				Output 3.7: Project Digital Strategy developed/implemented and Quality Assurance Framework augmented and independent verification process in place for measuring, reporting and verification of the sustainable develop impacts of MGs, including GHG emission reductions					
Somalia	Component 1: Policy and regulation	Stakeholder ownership in a national mini-grid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in lowcarbon mini-grids.		1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification.					
				1.2. Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial de-risking instruments and contribute to AMP Flagship Report on cost reduction.					
				1.3. Minigrid policies and regulations, including tariff model and incentives, are operationalized through digital transformation support, in collaboration with the authorities and other development partners.					

Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
			1.4. Institutional setup for rural electrification assessed and supported, and institutional capacity building provided on technical, managerial, and regulatory issues.					
			1.5. Quality standards for solar and hybrid minigrid components domesticated, and institutional capacity of Somali Bureau of Standards (SBS) and Somaliland Quality Control Commission (SQCC) strengthened.					
Component 2: Business Model innovation with private sector engagement	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon mini-grid development.		2.1. Pilot(s) developed using innovative business models through calls for proposals based on lessons learned from the operationalization of the SREF under ESRES2 and the results of the geospatial mapping by SEAP.					
			2.2. Public programmes (apprenticeships, certificates, university programs) to develop competitive, skilled labor market in the design, O&M, and management of solar and hybrid mini-grids, including technical training on the utilization of online tools for performance monitoring, consumption tracking and billing.					
			2.3. Support provided to establish, grow and capacitate national industry associations for private sector developers and ESPs.					
Component 3: Scaled-up financing	Financial sector actors are ready to invest in a pipeline of low-carbon mini-grids and concessional financial mechanisms are in place to incentivize scaled-up investment.		3.1. Design support, including development of operational guidance, for a complementary funding instrument through which the diaspora and small investors can participate in existing financing mechanisms that have been introduced by other development partners to facilitate finance for vetted mini-grid projects.					
			3.2. Domestic financial sector capacity building on business and financing models for minigrids.					
Component 4: Digital, Knowledge Management (KM)	Digital and data are mainstreamed, across stakeholders, into local		4.1. A Digital Strategy is developed and implemented, including linkages to and following guidance from, the AMP Regional Project.					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
	and Monitoring and Evaluation (M&E)	mini-grid market development. Increased knowledge, awareness and network opportunities in the mini-grid market and among stakeholders, including benefitting from linkages to international good practice.		4.2. Mini-grids digital platform implemented to run tenders and manage data from pilot(s), and to support minigrids scale-up and cost-reduction.					
				4.3. A Quality Assurance and Monitoring Framework (QAMF) for measuring, reporting and verification of the sustainable development impacts of all mini-grid pilot(s) supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the AMP Regional Project.					
				4.4. M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-term Review (MTR), and (iv) Terminal Evaluation (TE).					
				4.5. Engage with the AMP Regional Project, including, but not limited to, via (i) Participating in Communities of Practice (CoPs), and (ii) Capturing and sharing lessons learnt.					
Etiopia	Component 1: Policy and regulation	Stakeholder ownership in a national mini-grid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in low-carbon mini-grids.		1.1. Support for national dialogue, associated capacity enhancement and arrangements for implementation of cooperative minigrid delivery model(s)					
				1.2. Establishment of regulations, technical and contract provisions, and consultation with developers and financiers on grid arrival arrangements					
				1.3. Execution of the De-risking Renewable Energy Investment (DREI) analysis for solar PV minigrids					
				1.4. Development of decommissioning strategy and guidelines on waste management for minigrid components.					
				1.5. Capacity-building for MoWIE and its sectoral institutions via the MoWIE Innovation Center (MIC).					
	Component 2: Business Model	Innovative business models based on cost		2.1. Implementation of pilot minigrids under cooperative delivery models.					

Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
innovation with private sector engagement	reduction operationalized, with strengthened private sector participation in low-carbon mini-grid development.		2.2. Technical assistance for productive use in association with AMP-supported minigrids.					
			2.3. Training, higher education programs, and internships established for minigrid design, installation, operations, maintenance, and business models.					
Component 3: Scaled-up financing	Financial sector actors are ready to invest in a pipeline of low-carbon minigrids and concessional financial mechanisms are in place to incentivize scaled-up investment.		3.1. Design support for financing and risk mitigation instruments, as well as development of operational guidance, provided for minigrid and productive use financing facility.					
			3.2. Domestic financial sector capacity-building on business and financing models for minigrids					
Component 4: Digital, Knowledge Management (KM) and Monitoring and Evaluation (M&E)	Data and digitalization are mainstreamed, across stakeholders, into local mini-grid market development. Increased knowledge, awareness and network opportunities in the mini-grid market and among stakeholders, including benefitting from linkages to international good practice.		4.1. A Digital Strategy is developed and implemented, including linkages to and following guidance from the AMP Regional Project					
			4.2. Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction.					
			4.3. A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project.					
			4.4. M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Midterm Evaluation and (iv) Terminal Evaluation.					
			4.5. Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt.					

Table 13: Sudan

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
Sudan	Component 1 - Policy and Regulation	Stakeholder ownership in a national minigrid delivery model is advanced, and appropriate policies and regulations are adopted to facilitate investment in low-carbon minigrids	1.1	Mini-grid delivery model(s) identified from national dialogues on mini-grid delivery models					
			1.2	Registration process for Low Voltage minigrids in place and disseminated among stakeholders					
			1.3	A full minigrid regulatory framework is in place and adopted by MoEP and ERA through a series of inclusive national dialogues, with a streamlined licensing process and clear rules and requirements defined.					
			1.4	Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial de-risking instruments and contribute to AMP Flagship Report on Cost Reduction					
			1.5	Pre-feasibility studies for minigrid sites to enhance sector planning and decision-making on a delivery model for minigrid development, including geospatial studies					
			1.6	Capacitate public institutions, in particular MoEP and ERA on technical, managerial, and regulatory issues including design procurement and tender processes that incorporate cost-reduction levers and innovative business models					
	Component 2: Business Model Innovation with Private Sector	Innovative business models based on cost reduction are operationalized, with strengthened private sector participation in solar PV-battery or low-carbon minigrid development	2.1	Pilots for an indicative two to four (2-4) existing diesel minigrids have been hybridized with solar PV and a small electrical storage. This infrastructure is successfully implemented, operational, and maintained by the private sector, involving women's vocational training and participation, leading to cost-reduction in minigrids					
			2.2	Capacity of potential tender bidders (private sector developers) strengthened to consider innovative business models and cost-reduction levers. This output will also benefit from Activity 3.1.2.1 (hands-on coaching on minigrid developers)					
			2.3	A "solar sister" (brand name) programme is in place, that supports and capacitates Sudanese women on					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
				technical, managerial, and economic aspects of solar hybrid minigrids					
	Component 3: Scaled-up Financing	Innovative financing mechanisms explored at local and regional level, and final design options with recommendations on financing needs and opportunities for the uptake of both (i) solar PV greenfield minigrids, and (ii) solar PV hybridization in brownfield minigrids	3.1	Design support for minigrid innovative financing mechanisms					
			3.2	Financing needs to support the uptake of minigrids are assessed and identified					
			3.3	Feasibility study support provided to minigrid developers, creating a pipeline of investible assets in unelectrified communities in Sudan					
	Component 4: Digital Knowledge Management and Monitoring and Evaluation	Digitalization and data mainstreamed, across stakeholders, in particular into the existing public minigrid infrastructure where digital data is currently non existing. Increased knowledge, awareness and network opportunities in the minigrid market among stakeholders, including benefiting from linkages to international good practices	4.1	A Project Digital Strategy is developed and implemented, including linkages to a following guidance from the regional project					
			4.2	Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction					
			4.3	A Quality Assurance and Monitoring Framework (QAMF) for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted an operationalized based on standardized guidance from the regional project					
			4.4	M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-term Review (MTR), and (iv) Terminal Evaluation (TE)					
			4.5	Engage with the AMP Regional Project, including, but not limited to, via (i) Participating in Communities of Practice (CoPs), and (ii) Capturing and sharing lessons learnt					

Table 14: Madagascar

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
Madagascar	Component 1 - Policy and Regulation	Stakeholder ownership in a national mini-grid delivery model is advanced, and appropriate policies and regulations facilitating co-investment in low-carbon off-grid electrification solutions are adopted.	1.1	An inclusive national dialogue to identify delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification. These national dialogues will also test and align the newly approved Malagasy Decree of application of the electricity code (décret d'application du code de l'électricité) procedure with de-risking instruments.					
			1.2	Mini-grid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial de-risking instruments and contribute to AMP Flagship Report on Cost Reduction;					
			1.3	Study 1: Off-grid electricity techno-economic analyses conducted to gain contextual understanding, through defining village characteristics, customer demand, and an assessment of the ability and willingness to pay.					
			1.4	Study 2: Assessing the additional investment needs for the integration of energy efficient appliances, income-generating activities' processing units and machinery into a circular economy model to boost development and manage waste.					
	Component 2: Business Model Innovation with Private Sector	Innovative business models based on cost reduction and value addition are operationalized, with strengthened private sector participation in low-carbon progressive, integrated mini-grid development.	2.1	Develop a detailed project plan (the project's 'Mini-grid Pilot Plan') for advancing the project's mini-grid pilot(s) in the Atsimo Andrefana Region of Madagascar.					
			2.2	Selection of pilot(s), contracting and payments to the selected pilot beneficiaries					
			2.3	Monitor pilot(s), collect and aggregate data shared by pilot(s)					
			2.4	Enhanced capacity of the selected ESP(s) to develop and implement innovative business models and value-added levers.					
	Component 3: Scaled-up Financing	Financial sector actors are aware of the investment potential and financing needs of solar off-grid projects, including low-carbon mini-grids, to incentivise scaled-up investment.	3.1	Domestic financial sector capacity-building on business and financing models for mini-grids					

	Project Component	Outcomes	#	Outputs	Procedure for the Overall Project	Procedure for Co-financed Activities	Procedure to Review Eligibility Lists for Funding	Procedure for Upstream Activities	Procedure for Downstream Activities
	Component 4: Digital Knowledge Management and Monitoring and Evaluation	Digitalisation and data are encouraged across stakeholders into local mini-grid market development. Increased knowledge, awareness and network opportunities in the solar off grid market and among stakeholders, including local communities.	4.1	A Project Digital Strategy is developed and implemented, including linkages to and following guidance from the regional project.					
			4.2	A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all off-grid/mini-grids pilots supported, including GHG emission reductions, is adopted and operationalised based on standardised guidance from the regional project					
			4.3	National project stakeholders participate in AMP Communities of Practice led by the regional project.					
			4.4	Lessons learned are captured and shared with the regional project.					
			4.5, 4.6, and 4.7	M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-term Review (MTR), and (iv) Terminal Evaluation (TE)					

Attachment VII - Sample Terms of Reference: Project-level Grievance Redress Mechanism

The GRM will be composed of:
The Implementing Partner, as the Secretariat and either:
A standing GRM Sub-Committee [made up of x, y, z PB members to be determined]
and/or
Ad hoc GRM Task Teams in response to specific requests for grievance

The GRM Sub-Committee will be balanced in composition (government and non-government) and should not include any PB members with a direct interest or role in the grievance/dispute.

In its role as GRM Secretariat, the Implementing Partner will perform the following core functions:

- Publicize the existence of the GRM and the procedure for using it;
- Receive and log requests for dispute resolution;
- Acknowledge receipt to the requestor;
- Determine eligibility;
- Forward eligible requests to the PB for review and action, and
- Track and document efforts at grievance/dispute resolution and their outcomes.

Project Board/GRM Sub-Committee/GRM Task Team
The Project Board/GRM Sub-Committee and/or GRM Task Team will perform the following core functions:

- Take direct action to resolve the grievance/dispute (e.g. bring the relevant parties together to discuss and resolve the issue themselves with oversight by the PB);
- Request further information to clarify the issue, and share that information with all relevant parties, or ensure that a government agency represented on the PB took an appropriate administrative action to deal with a complaint;
- Refer the grievance/dispute to independent mediation, while maintaining oversight; or
- Determine that the request was outside the scope and mandate of the PB and refer it elsewhere (e.g. Ministry of Justice and Police or to the courts).

Communicating a Grievance

(i) Who can Submit a Grievance?

A Grievance can be sent by any individual or group of individuals that believes it has been or will be harmed by the Project.

If a Grievance is to be lodged by a different individual or organization on behalf of those said to be affected, the Claimant must identify the individual and/or people on behalf of who the Grievance is submitted and provide written confirmation by the individual and/or people represented that they are giving the Claimant the authority to present the Grievance on their behalf. The GRM will take reasonable steps to verify this authority.

(ii) How is the Grievance Communicated?

The GRM shall maintain a flexible approach with respect to receiving Grievances in light of known local constraints with respect to communications and access to resources for some Stakeholders. A

Grievance can be transmitted to the GRM by any means available (i.e. by email, letter, phone call, meeting, SMS, etc.). The contact information is the following:

Implementing Partner to add address, phone number, fax, etc.

To facilitate communications with and between the GRM and potential Claimants, the GRM will receive support from the PB members' institutions, local government and civil society organizations

(iii) What information should be included in a Grievance?

The Grievance should include the following information:

(a) the name of the individual or individuals making the Complaint (the "Claimant");

(b) a means for contacting the Claimant (email, phone, address, other);

(c) if the submission is on behalf of those alleging a potential or actual harm, the identity of those on whose behalf the Grievance is made, and written confirmation by those represented of the Claimant's authority to lodge the Grievance on their behalf;

(d) the description of the potential or actual harm;

(e) Claimant's statement of the risk of harm or actual harm (description of the risk/harm and those affected, names of the individual(s) or institutions responsible for the risk/harm, the location(s) and date(s) of harmful activity);

(f) what has been done by Claimant thus far to resolve the matter;

(g) whether the Claimant wishes that their identity is kept confidential; and

(h) the specific help requested from the GRM.

However, complainants are not required to provide all of the information listed above. Initially, the complainant need only provide enough information to determine eligibility. If insufficient information is provided, the GRM has an obligation to make a substantial, good faith effort to contact the complainant to request whatever additional information is needed to determine eligibility, and if eligible, to develop a proposed response.

Logging, Acknowledgment, and Tracking

All Grievances and reports of conflict will be received, assigned a tracking number, acknowledged to Claimant, recorded electronically, and subject to periodic updates to the Claimant as well as the office file.

Within one (1) week from the receipt of a Grievance, the GRM will send a *written* acknowledgement to Claimant of the Grievance received with the assigned tracking number.[10]

Each Grievance file will contain, at a minimum:

i. the date of the request as received;

ii. the date the written acknowledgment was sent (and oral acknowledgment if also done);

iii. the dates and nature of all other communications or meetings with the Claimant and other relevant Stakeholders;

iv. any requests, offers of, or engagements of a Mediator or Facilitator;

v. the date and records related to the proposed solution/way forward;

[10] Oral acknowledgments can be used for expediency (and also recorded), but must be followed by a written acknowledgment.

vi. the acceptance or objections of the Claimant (or other Stakeholders);

vii. the proposed next steps if objections arose;

viii. the alternative solution if renewed dialogues were pursued;

ix. notes regarding implementation; and

x. any conclusions and recommendations arising from monitoring and follow up.

Maintaining Communication and Status Updates

Files for each Grievance will be available for review by the Claimant and other Stakeholders involved in the Grievance, or their designated representative(s). Appropriate steps will be taken to maintain the confidentiality of the Claimant if previously requested.

The GRM will provide periodic updates to the Claimant regarding the status and current actions to resolve the Grievance. Not including the acknowledgment of receipt of the Grievance, such updates will occur within reasonable intervals (not greater than every thirty (30) days).

Investigation and Consensus Building

Within one (1) week of receiving a Grievance, the Implementing Partner will notify the PB/**GRM Sub-Committee (GRM SC)/GRM Task Team (GRM TT)** and any other relevant institutions of the receipt of the Grievance.

[IF THE PB, RATHER THAN A PRE-DESIGNATED GRM SC OR GRM TT IS THE PRIMARY BODY RECEIVING COMPLAINTS: The PB will identify a specific team of individuals drawn from the PB and/or their respective institutions to develop a response to the Grievance. The names of these individuals will be made available to the Claimant.]

The designated PB members/GRM SC/GRM TT will promptly engage the Claimant and any other relevant Stakeholders deemed appropriate, to gather all necessary information regarding the Grievance.

Through the PB members/GRM SC/GRM TT, the GRM will have the authority to request from relevant Government institutions any information (documents or otherwise) relevant to resolving the Grievance and avoiding future Grievances of the same nature.

As necessary, the PB members/GRM SC/GRM TT will convene one or more meetings with relevant individuals and institutions in [national capital], or elsewhere in [name of country] as needed.

The objective of all investigative activities is to develop a thorough understanding of the issues and concerns raised in the Grievance and facilitate consensus around a proposed solution and way forward.

The PB members/GRM SC/GRM TT will procure the cooperation of their respective staff with the investigation.

At any point during the investigation, the PB members/GRM SC/GRM TT may determine that an onsite field investigation is necessary to properly understand the Grievance and develop an effective proposed solution and way forward.

Seeking Advisory Opinion and/or Technical Assistance

At any point after receiving a Grievance and through to implementation of the proposed solution and way forward, the PB members/GRM SC/GRM TT may seek the technical assistance and/or an advisory opinion from any entity or individual in [country] or internationally which may reasonably be believed to be of assistance.

Making Proposed Actions and Solutions Public and Overseeing Implementation
The PB members/GRM SC/GRM TT will communicate to the Claimant one or more proposed actions or resolutions and clearly articulate the reasons and basis for proposed way forward.

If the Claimant does not accept the resolution, the PB members/GRM SC/GRM TT will engage with the Claimant to provide alternative options.

If the Claimant accepts the proposed solution and way forward, the GRM will continue to monitor the implementation directly and through the receipt of communications from the Claimant and other relevant parties. As necessary, the GRM may solicit information from the relevant parties and initiate renewed dialogue where appropriate.

In all communications with the Claimant and other stakeholders, the GRM will be guided by its problem-solving role, non-coercive principles and process, and the voluntary, good faith nature of the interaction with the Claimant and other stakeholders.

Monitoring and Evaluation
Bi-annually, the GRM will make available to the public, a report describing the work of the GRM, listing the number and nature of the Grievances received and processed in the past six months, a date and description of the Grievances received, resolutions, referrals and ongoing efforts at resolution, and status of implementation of ongoing resolutions. The level of detail provided with regard to any individual Grievance will depend on the sensitivity of the issues and Stakeholder concerns about confidentiality, while providing appropriate transparency about the activities of the GRM. The report will also highlight key trends in emerging conflicts, Grievances, and dispute resolution, and make recommendations regarding:

(i) measures that can be taken by the Government to avoid future harms and Grievances; and

(ii) improvements to the GRM that would enhance its effectiveness, accessibility, predictability, transparency, legitimacy, credibility, and capacity.

Mediation
For the option of independent mediation, mediators on the roster/panel should have at least the following qualifications:

- professional experience and expertise in impartial mediation;
- knowledge of [project type and activities in the country] and the region, including an understanding of indigenous and tribal culture and practices;
- [national and local language, as appropriate] proficiency;
- availability in principle for assignments of up to 20 days; and
- willingness to declare all relationships and interests that may affect their ability to act as impartial mediators in particular cases.

If mediation succeeded in resolving the dispute or grievance, the outcome will be documented by the Implementing Partner and reviewed by the Task Team. If it is unsuccessful, stakeholders will have the option to return to the PB members/GRM SC/GRM TT for assistance.

Without Prejudice
The existence and use of this GRM is without prejudice to any existing rights under any other complaint mechanisms that an individual or group of individuals may otherwise have access to under

national or international law or the rules and regulations of other institutions, agencies or commissions.

Attachment VIII - Indicative Outline of ESIA Report

An ESIA report should include the following major elements (not necessarily in the following order):

a. Executive summary: Concisely discusses significant findings and recommended actions.

(2) Legal and institutional framework: Summarizes the analysis of the legal and institutional framework for the project within which the social and environmental assessment is carried out, including (a) the country's applicable policy framework, national laws and regulations, and institutional capabilities (including implementation) relating to social and environmental issues; obligations of the country directly applicable to the project under relevant international treaties and agreements; (b) applicable requirements under UNDP's SES; and (c) and other relevant social and environmental standards and/or requirements, including those of any other donors and development partners. Compares the existing social and environmental framework and applicable requirements of UNDP's SES (and those of other donors/development partners) and identifies any potential gaps that will need to be addressed.

(3) Project description: Concisely describes the proposed project and its geographic, social, environmental, and temporal context, including any offsite activities that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary supply chain. Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts. (i.e. area of influence).

(4) Baseline data: Summarizes the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions; assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences; and takes into account current and proposed development activities within the project area but not directly connected to the project.

(5) Social and environmental risks and impacts: Predicts and takes into account all relevant social and environmental risks and impacts of the project, including those related to UNDP's SES (Overarching Policy and Principles and Project-level Standards). These will include, but are not limited to, the following:

(a) Environmental risks and impacts, including: any material threat to the protection, conservation, maintenance and rehabilitation of natural habitats, biodiversity, and ecosystems; those related to climate change and other transboundary or global impacts; those related to community health and safety; those related to pollution and discharges of waste; those related to the use of living natural resources, such as fisheries and forests; and those related to other applicable standards.[11]

(b) Social risks and impacts, including: any project-related threats to human rights of affected communities and individuals; threats to human security through the escalation of personal, communal or inter-state conflict, crime or violence; risks of gender discrimination; risks that adverse project

[11] For example, the Environmental, Health, and Safety Guidelines (EHSGs), which are technical reference documents with general and industry-specific statements of Good International Industry Practice. The EHSGs contain information on industry- specific risks and impacts and the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable cost. Available at www.ifc.org/ehsguidelines.

impacts fall disproportionately on disadvantaged or marginalized groups; any prejudice or discrimination toward individuals or groups in providing access to development resources and project benefits, particularly in the case of disadvantaged or marginalized groups; negative economic and social impacts relating to physical displacement (i.e. relocation or loss of shelter) or economic displacement (i.e. loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land or resource acquisition or restrictions on land use or access to resources; impacts on the health, safety and well-being of workers and project-affected communities; and risks to cultural heritage.

(6) Analysis of alternatives: Systematically compares feasible alternatives to the proposed project site, technology, design, and operation – including the "without project" situation – in terms of their potential social and environmental impacts; assesses the alternatives' feasibility of mitigating the adverse social and environmental impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures; for each of the alternatives, quantifies the social and environmental impacts to the extent possible, and attaches economic values where feasible. Sets out the basis for selecting the particular project design.

(7) Mitigation Measures: Summary of (with attachment of full) Environmental and Social Management Plan (ESMP) (see indicative outline of ESMP below.) The ESMP identifies mitigation measures required to address identified social and environmental risks and impacts, as well as measures related to monitoring, capacity development, stakeholder engagement, and implementation action plan.

(8) Stakeholders. Summarizes and links to project Stakeholder Engagement Plan or ESMP that includes plan for consultations. Includes summary of consultations undertaken for development of ESIA (see appendices).

(9) Conclusions and Recommendations: Succinctly describes conclusion drawn from the assessment and provides recommendations. Includes recommendation regarding the project's anticipated benefits in relation to its social and environmental risks and impacts.

(10) Appendices: (i) List of the individuals or organisations that prepared or contributed to the social and environmental assessment; (ii) References – setting out the written materials both published and unpublished, that have been used; (iii) Record of meetings, consultations and surveys with stakeholders, including those with affected people and local NGOs. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected groups and local NGOs, summarizes key concerns and how these concerns addressed in project design and mitigation measures; (iv) Tables presenting the relevant data referred to or summarized in the main text; (v) Attachment of any other mitigation plans; (vi) List of associated reports or plans.

Attachment IX - Indicative Outline of an ESMP

An ESMP may be prepared as part of the Environmental and Social Impact Assessment (ESIA) report or as a stand-alone document.[12] The content of the ESMP should address the following sections:

(1) Mitigation: Identifies measures and actions in accordance with the mitigation hierarchy that avoid, or if avoidance not possible, reduce potentially significant adverse social and environmental impacts to acceptable levels. Specifically, the ESMP: (a) identifies and summarizes all anticipated significant adverse social and environmental impacts; (b) describes – with technical details – each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential social and environmental impacts of these measures and any residual impacts following mitigation; and (d) takes into account, and is consistent with, other required mitigation plans (e.g. for displacement, indigenous peoples).

(2) Monitoring: Identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

(3) Capacity development and training: To support timely and effective implementation of social and environmental project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level. Specifically, the ESMP provides a description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g. for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). Where support for strengthening social and environmental management capability is identified, ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

(4) Stakeholder Engagement: Summarizes and links to project Stakeholder Engagement Plan or outlines plan to engage in meaningful, effective and informed consultations with affected stakeholders. Includes information on (a) means used to inform and involve affected people in the assessment process; and (b) summary of stakeholder engagement plan for meaningful, effective consultations during project implementation, including identification of milestones for consultations, information disclosure, and periodic reporting on progress on project implementation. Require documentation of consultations (summaries including presentations, key points raised and responses provided, participation lists). Include information on project grievance mechanism (below) and on UNDP Accountability Mechanisms (SRM, SECU).

(5) Grievance redress mechanism: Describes effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's social and environmental performance.

[12] This may be particularly relevant where contractors are being engaged to carry out the project, or parts thereof, and the ESMP sets out the requirements to be followed by contractors. In this case the ESMP should be incorporated as part of the contract with the contractor, together with appropriate monitoring and enforcement provisions.

Describe mechanisms to provide stakeholders and potential affected communities avenues to provide feedback or grievances, and receive responses, with regard to the implementation of specific activities, policies, or regulations.

(6) Implementation action plan (schedule and cost estimates): For all four above aspects (mitigation, monitoring, capacity development, and stakeholder engagement), ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables. Each of the measures and actions to be implemented will be clearly specified and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

Attachment X - Financial Project Risks

During the assessment and management of economic displacement, special attention will be given to the financial structure of the project. Many of the risks that renewable energy projects face are common and known beyond this business. Regardless of the final energy use, the size, the financial structure of the project, and technology used by the project, the project will have in place the control mechanisms and allocation of risks to the appropriate parties:

Risk Category	Stake	Specific Risk / Events	Risk Mitigation / Control Mechanism	Risk Allocation
Project Investors	Commitment, competence and credit worthiness of investors. Will the alliance make the project work?	Credit Risk	Credit Assessment	Sponsor / Lenders
		Large level of investment/ long tenor of return	Requires competence and industry knowledge	
		Additional equity required later	Credit assessment of sponsors	
		Commitment	Through formal agreement	
		Misalignment of investors' objectives	Must understand the differences between *strategic* and *tax* investor.	
Construction Risk	Timing, cost and performance of the project	Cost overruns	Fixed price Engineering Procurement and Construction (EPC) contract. If that is impossible, use one contract for turbines or panels and another for all the electrical components (Balance of Power). Completion guarantees Progress Reports	Sponsor Equipment Supplier
		Completion delay Abandonment Non-completion	Equity in advance Penalty Payments: up to cap of 20% for any delay on daily basis (except *Force Majeure*) Delivery date in advance of off-take agreement	
		Project Specifications / Quality	Performance Tests Use proven technology from well-known vendors	
		Force Majeure: Sponsor changes order Natural disasters Political risk	Insurance Agree to completion criteria between construction and operating companies.	Insurance
		Land Availability	Exclusivity Agreement Environmental indemnities Long lease that coincides with useful life of plant.	Land Owner
Operations	Cost, availability, environmental impact and changes in law	Unsatisfactory plant performance	Performance Warranty Operating & Maintenance Agreement	Plant Operator & Sponsor
		Equipment Defect	Manufacturer warranties for performance against power curve and availability	Equipment Supplier

Market Risk	Volume, price and demand of output (i.e. power) as well as input (i.e. fuel where appropriate and transportation)	Demand for power Price of electricity	Off-take agreement (PPA) for the whole lifetime of the plant. Although this reduces the market risk, a PPA introduces credit risk with regards to the purchaser. Hedge the risk (up to 5 - 8 years only)	Power off-taker (utility) Hedge provider
		Price for fuel Quality of fuel	Fuel supply contract & term	Supplier
Transportation Risk	Applies to construction and operations equally, if affected by blockages, strikes, and transport cost escalation		Consider transport alternatives Agree on pricing terms	Sponsor
Environmental Risks	Risk of incurring fees, fines or withdrawal of license resulting from laws or disasters	Disposal of fixed assets Disposal of spent fuel	Long-term contracts Include expenditure for disposal in business plan	Sponsor
Financial Risk	Changes in interest rates or exchange rates may affect payments	Interest Rate Swings and subsequent violation of terms	Interest Rate Hedge	Bank
		Exchange Rate Swing	Currency Hedge	Bank
Country Risk	Political risk arising from operating in a foreign country including Transfer Risk Sovereign Risk Political Risk Exchange Rates Inflation	War and Civil Strife Confiscation, Expropriation and Nationalization (CEN) Increase in taxes levied on the project Import / Export duties Change in regulation	Political risk insurance through state sponsored agencies (range: 0.2% pa to 2% pa): Won't cover all events and based on book values. Keep part of the technology secret Debt finance preferred, as dividends are more likely to be blocked than interest payments. Use of local debt Use joint venture with local investors. Joint financing with international lenders.	Export Credit Agency Development Bank Private Insurer
		Foreign exchange rate changes due to devaluation, convertibility or transfer restrictions	Insurance hard to get! Invest blocked funds in local financial markets or in internationally traded goods. Spend blocked funds buying local goods.	
Credit Risk	Risk of default of counterparties or default on specific payments		Good credit risk management. As most parties involved are relatively small, insurance is not available.	All

Table 15 – List of financial project's risks

Attachment XI - Negative Impacts by technology type

Solar PV
Land use and habitat loss Use of hazardous materials in manufacturing Release of toxins (e-waste and batteries) Visual impact Vulnerable to hail Use of scare resources Solar panels can pose risks to wildlife especially birds that may confuse them with water bodies
Biomass
Mass of green stock can displace food crops and can cause starvation. Incomplete combustion yields carbon monoxide – a poisonous gas – soot and particulates, the precursors of acid rain. If growing biomass, merely to burn it, prevents land being used for food production, only waste biomass should be counted Steel frame units housing vulnerable to lighting
Biogas
Odor Waste generation Water pollution Risk of explosion
Hydro
Can influence another area's water supply Influencing another area's water supply can cause conflicts Physical displacement Agricultural impact and river damage Altering the natural environment and loss of habitat
Geothermal
Odor Pollution Noise
Wind
Land use issues Challenges to wildlife and habitat Bird strike Visual impact and noise Vulnerable to winds, storms and lighting
Solar thermal
Small risks
Air and ground source heat pumps
Assumed to be excluded due to its feasibility
Interseasonal heat transfer
Assumed to be excluded due to its feasibility
Asphalt solar collector
Assumed to be excluded due to its feasibility

Table 16 - Negative impacts by technology type

Attachment XII - Special attention to the A&M due to weather related events

1. Wind

- Regular checks should be carried out on the foundations, tower, and blades of wind turbines along with any other structures and equipment on site. Monitor the tower for the effects of turbulence from other wind turbines or structures nearby and ensure that the automatic shut-down mechanism for high wind speeds and braking systems are working.
- Dual axis photovoltaic plants have a higher exposure from wind damage than ground mounted installations due to their elevation and the overall size of the panels. There is a 'fail-safe' control in the event of high winds and this should be checked to ensure it is operational.
- The condition of trees in the vicinity of any buildings or transmission lines should be inspected. Any suspect branches and trees should be removed to prevent any potential damage.

2. Flood

- Flooding could result in water ingress into transformer and inverter housings together with site buildings. Site drainage should be inspected regularly along with any debris screens to ensure they are clear especially at locations where culverts and drains are specifically provided. Any site drainage pumps should be checked and tested to ensure they are in working order together with the condition of seals in underground cable ducts to prevent water ingress into critical areas due to flooding.
- Hydro facilities are particularly susceptible to flood damage as although the turbine is designed to be submerged, the associated transformer and electrical equipment is not. As these are often housed nearby it is imperative that the powerhouse is located at an elevated location above the high water line.
- In anticipation of severe rain storms and adverse weather conditions, it is important to ensure that any susceptible equipment is moved to a location where it will not be affected by water and that temporary flood barriers are installed and activated.

3. Hail

- Use PV panels that have been certified to IEC1215/61646, ASTME1038, UL 1703 or FM4476/4478 standards to ensure that the panels are strengthened to withstand routine hail events.
- Check the orientation of the PV panels. Angled orientation of fixed mounted panels (generally 30º facing southward) can help to deflect falling hailstones and reduce the force imposed onto the panel. Panels that are direct-mounted on low slope roofs, or are mounted horizontally (0º tilt, facing directly upward) pose a higher risk of potential damage from direct strike of large hailstones.

4. Lightning

- A lightning protection system Class III is normally required for turbines up to 60m and Class II if the turbine is more than 60m. The protection system comprises of air-termination systems, down-conductor/s and an earth termination system to protect against mechanical destruction and fire. Lightning strikes to wind turbines usually affect the rotor blades and bearings. To mitigate the damage affects, lightning receptors should be integrated to defined strike points along the rotor and body.
- Measures to protect wind turbines against lightning strike are described in the international

standard IEC 61400-24.

- For steel frame factories units housing (for example) biomass units, waste-to-energy plants etc., lighting rods or air terminals are the more familiar type of lightning protection. These must be installed to the relevant local standard. Lightning rods are good at conducting electrical surges away from the actual structure of a building but they will not necessarily protect against power surges.
- Surge protection should be fitted to help against excessive power outages, which can be caused by lightning strikes and can potentially damage computerized control units installed on biomass plants, anaerobic digesters and other waste-to-energy plants. Such measures together with appropriate lightning protection can help to prevent damage which might otherwise occur during a lightning storm.

Attachment XIII - Indigenous Peoples Screening Questionnaire

This attachment is to be applied as part of "Procedure for downstream activities", step 1.
It is a remote screening questionnaire for identification of populations meeting indigenous peoples criteria.

Municipality:		Date returned:	
Contact person:		Date sent:	
Contact telephone:		Contact email:	

This questionnaire related to an upcoming project, **'xxxx',** to be implemented by xxxx, financed by the xxxx, with the aim of xxxx.

This will include activities with vulnerable communities. As such, it is necessary to establish the identification of vulnerable groups and minorities in areas included in the project. The information you provides will assist with the planning and implementation of components within the project.

We ask you to provide information as accurately as possible in consultation with your colleagues. Please type your answers within the document and return it via email.

We appreciate the completion of this questionnaire by _____(date)_____, to be sent to _____(name & email address)_____.

Should you require further information regarding this questionnaire, please contact ____(name & telephone & email)_____.

Please fill in the information in the spaces provided below, using as much space as need.

1. Within your (define area), are there communities considered to be particularly vulnerable by your office? (Yes/No). If yes, please identify the group(s) and their approximate locations.

2. Within your (define area), are there communities who speak minority languages? (Yes/No). If yes, please identify the group(s) and their approximate locations.

3. Within your (define area), have you identified groups who, in the recent past or currently, did not develop agricultural practices and relied on hunting or other forms of livelihoods that rely on natural resources? (Yes/No). If yes, please identify the group(s) and their approximate locations.

4. Are there groups within your (define area), who continue to practice pastoralism include seasonal migration? (Yes/No). If yes, please identify the group(s) and their approximate locations.

5. Please provide any other information or resources that may be relevant.

Attachment XIV: Indicative Outline of an Indigenous People's Plan

This outline guides the preparation of an Indigenous Peoples Plan, although not necessarily in the order shown.

Executive Summary of the Indigenous Peoples Plan
This section concisely describes the critical facts, significant findings, and recommended actions.

Project Description
This section provides a general description of the project; discusses project components and activities that may bring impacts on Indigenous Peoples/Ethnic Minorities; and identify project area.

Social Impact Assessment

This section:

a. Reviews the legal and institutional framework applicable to Indigenous Peoples/Ethnic Minorities in project context;

b. Provides baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples/Ethnic Minorities; the land and territories that they have traditionally owned or customarily used or occupied; and the natural resources on which they depend;

c. Identifies key project stakeholders and elaborate a culturally appropriate and gender-sensitive process for meaningful consultation with Indigenous Peoples/Ethnic Minorities at each stage of project preparation and implementation, taking the review and baseline information into account;

d. Assesses, based on meaningful consultation with the affected Indigenous Peoples/Ethnic Minority communities, and the potential adverse and positive effects of the project. Critical to the determination of potential adverse impacts is a gender-sensitive analysis of the relative vulnerability of, and risks to, the affected Indigenous Peoples/Ethnic Minority communities given their particular circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to those available to other social groups in the communities, regions, or national societies in which they live;

e. Includes a gender-sensitive assessment of the affected Indigenous Peoples/Ethnic Minorities' perceptions about the project and its impact on their social, economic, and cultural status; and

f. Identifies and recommends, based on meaningful consultation with the affected Indigenous Peoples/Ethnic Minorities communities, the measures necessary to avoid adverse effects or, if such measures are not possible, identifies measures to minimize, mitigate, and/or compensate for such effects and to ensure that Indigenous Peoples/Ethnic Minorities receive culturally appropriate benefits under the project.

Information Disclosure, Consultation and Participation

This section:

a. Describes the information disclosure, consultation and participation process with the affected Indigenous Peoples/Ethnic Minority communities that can be carried out during project preparation;

b. Summarizes their comments on the results of the social impact assessment and identifies concerns raised during consultation and how these have been addressed in project design;

c. In the case of project activities requiring broad community support, documents the process and outcome of consultations with affected Indigenous Peoples/Ethnic Minority communities and any agreement resulting from such consultations for the project activities and safeguard measures addressing the impacts of such activities;
d. describes consultation and participation mechanisms to be used during implementation to ensure Indigenous
Peoples/Ethnic Minorities participation during implementation; and

e. Confirms disclosure of the draft and final to the affected Indigenous Peoples/Ethnic Minority communities.

Beneficial Measures

This section specifies the measures to ensure that Indigenous Peoples/Ethnic Minorities receive social and economic benefits that are culturally appropriate, and gender responsive.

Mitigative Measures

This section specifies the measures to avoid adverse impacts on Indigenous Peoples/Ethnic Minorities; and where the avoidance is impossible, specifies the measures to minimize, mitigate and compensate for identified unavoidable adverse impacts for each affected Indigenous Peoples/Ethnic Minorities.

Capacity Building

This section provides measures to strengthen the social, legal, and technical capabilities of (a) government institutions to address Indigenous Peoples/Ethnic Minorities issues in the project area; and (b) Indigenous Peoples/Ethnic Minority organizations in the project area to enable them to represent the affected Indigenous Peoples/Ethnic Minorities more effectively.

Grievance Redress Mechanism

This section describes the procedures to redress grievances by affected Indigenous Peoples/Ethnic Minority communities. It also explains how the procedures are accessible to Indigenous Peoples/Ethnic Minorities and culturally appropriate and gender sensitive. It is anticipated this would utilize the already developed Grievance Redress Mechanism established under the Indigenous Peoples Planning Framework.

Monitoring, Reporting and Evaluation

This section describes the mechanisms and benchmarks appropriate to the project for monitoring and evaluating the implementation of the Indigenous Peoples Plan. It also specifies arrangements for participation of affected Indigenous Peoples/Ethnic Minorities in the preparation and validation of monitoring, and evaluation reports.

Institutional Arrangement

This section describes institutional arrangement responsibilities and mechanisms for carrying out the

various measures of the Indigenous Peoples Plan. It also describes the process of including relevant local organizations and/or NGOs in carrying out the measures of the Indigenous Peoples Plan.

Budget and Financing

This section provides an itemized budget for all activities described in the Indigenous Peoples Plan.