

S?o Tom? and Pr?ncipe national child project under the Africa Minigrids Program

Review CEO Endorsement and Make a recommendation

Basic project information

GEF ID

10832

Countries

Sao Tome and Principe

Project Name

S?o Tom? and Pr?ncipe national child project under the Africa Minigrids Program

Agencies

UNDP

Date received by PM

8/31/2022

Review completed by PM

12/16/2022

Program Manager

Patricia Marcos Huidobro

Focal Area

Climate Change

Project Type

PIF CEO Endorsement

Part I ? Project Information

Focal area elements

1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?

Secretariat Comment at CEO Endorsement Request
12/16/2022:

Cleared.

9/26/2022 PM:

No. The project is aligned with GEF's CCM Focal Area. However, please address the following comments:

- The project shall be tagged as Rio Marker Climate Change Mitigation (CCM) 2 instead of Climate Change Mitigation 1, as climate change mitigation is explicitly stated as fundamental in the design of, or the motivation for, the project (i.e. support access to clean energy). Also, by updating the Rio Marker to CCM2, the project will be aligned with other national child projects under the Africa Minigrids Program.
- There seems to be some inconsistencies in the Executing Agency of the project. For instance, as per Part I Project Information the Executing Agency is MOPIRNA (Ministry of Public Works, Natural Resources and Environment) while in the rest of the document is Directorate-General Natural Resources and Energy (DGRNE) at the Ministry of Infrastructure and Natural Resources (MIRN). Please clarify and address this inconsistency across the document.

Agency Response
15/12/2022 KH

- This is acknowledged and corrected.

* Corrected in CEO ER, Table A (p.1).

- Acknowledged. This must have been an error.

The EA is: Directorate-General Natural Resources and Energy (DGRNE).

The DGRNE is part of the Ministry of Infrastructure and Natural Resources (MIRN). Note that MOPIRNA is the former name of MIRN. Under the current Government, MIRN continues managing all MOPIRNA areas including public works and environment.

Corrected in Portal

Project description summary

2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response

3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response

Co-financing

4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified

and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat Comment at CEO Endorsement Request

1/17/2023 PM:

Cleared.

1/7/2023 PM:

No. Please address the following comments:

- AfDB: change "Recurrent expenditures" to "Investment mobilized?"
- UNDP: change "Recurrent expenditures" to "Investment mobilized?"

12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Although co-financing sources, amount and type have been adequately documented, please elaborate further **how "Investment Mobilized" was identified and explain main changes from PIF. Particularly, since that co-financing amount has been almost doubled from PIF to CEO Endorsement stage.**

Agency Response

01/13/2023

Addressed in CEO ER as requested

15/12/2022 KH

- The changes in co-finance sources have been clarified in the CEO ER.

Explanatory text on investment mobilized is inserted in CEO ER, below Table C (p3.4) as follows:

The Government DGRNE is providing USD 38,210 in terms of the cost of senior officials, technicians and administrative staff as well as the use of premises and equipment including vehicles to implement project activities.

UNDP is supporting the project in terms of training in finance management, procurement, project management for the government with USD 50,000 to move on from the support request for executing GEF projects. Hence, encouraging the government to shift from support to NIM to full NIM

The AfDB Energy Transition and Institutional Support Programme (ETISP) is USD 12 million for the duration of 2020 ? 2025 project. This project has collaborated with the previous GEF-5 UNDP Sustainable Energy Management project where close collaboration on advancing and financing feasibility studies for DGRNE Institutional support and mini hydro, and solar PV collaboration started. In a small market such as STP grid connected, and off grid are closely interlinked. For the remaining period of ETISP 2023-2025, the proportion of the project intends to co-finance USD 6 million for continuous (i) institutional support and building capacity at the GoSTP while strengthening financial governance and the business climate in terms of penetration of RE; (ii) finance urgent grid reinforcement and rehabilitation of the Papagaio hydropower plant (<1MW); and the second phase of the hybridization of Santo Amaro thermal power plant with the first solar PV; (iii) collaboration on collecting data and the digitalization of the energy sector.

Explanatory text on the changes in co-financing inserted in CEO ER, in the Part II section on changes from the PIF (paragraph 5):

?The PIF presented indicative cofinance sources as follows:

(a) private sector (energy end-users) US\$ 560,000

(b) AfDB ETISP US\$ 3,452,000

(c) utility EdPR (Portugal) US\$ 1,785,000

(d) private sector (end-users with EdPR at Principe Island) US\$ 120,000

We note that the sources (c) and (d) are not included at CEO ER because the AMP will not implement MG pilots at Principe Island; project sites are in Sao Tome island only. This is related to the fact that EdRP, which was preparing an investment proposal in STP when the PIF was developed, decided to withdraw altogether from the market for commercial reasons. (Reportedly, the sales price under PPA offered by EMAE was insufficient.)

As the MG pilots are only developed conceptually, it is too early to bring specific, private, investors on board. More work is needed - guided by the Minigrid Pilot Plan as part of output 2.1 ? to further mature the pilots. This situation is typical for incipient MG markets in SIDS,

as is the case in STP. In these countries, UNDP has decided not to push cofinance letters from private developers at this stage (as this might interfere with government tender processes and would probably be unsuccessful anyway). Therefore, source (a) has not materialized. Yet, in a context of severe electricity supply deficits, many end-users are willing to co-invest to secure supply for critical electricity uses.

UNDP has maintained a continuous dialogue with the AfDB, which was due to the positive collaboration on previous energy projects in STP. As a result, a cofinance letter to the tune of US\$ 12M was obtained, which exceeds the total amount committed at PIF (source a).

For the sake of completeness, mention is made here of additional cofinance from the STP Government (US\$38,210) and from UNDP (US\$50,000).?

GEF Resource Availability

5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response
Project Preparation Grant

6. Is the status and utilization of the PPG reported in Annex C in the document?

Secretariat Comment at CEO Endorsement Request
1/23/2023 PM:

Cleared.

1/17/2023 PM:

No. With many thanks for rearrange the PPG table by output, kindly clarify what the category "Professional Services Nat." referred to. If this is consultancy services, you may want to include this under categories "international consultants" or "local consultants". For

further information on what activities are PPG eligible please check tables 1 and 2 in pages 10 and 11 of the GEF Policy Guidelines

- https://www.thegef.org/sites/default/files/documents/GEF_Guidelines_Project_Program_Cycle_Policy_20200731.pdf

12/16/2022 PM:

No. Status of utilization of PPG is presented per output (formulation of the project document, report delivery of final outputs, etc.) instead of expenditure categories (i.e. meetings, consultants, etc.). Please align the cost in these columns with the expenditure categories.

9/26/2022 PM:

Yes. All PPG resources have been either spent or committed.

Agency Response

01/13/2023

Table has been amended as requested.

01/18/2023

Professional Services Nat. is a consultancy service and it is now included to ?local consultant?.

Core indicators

7. Are there changes/adjustments made in the core indicator targets indicated in Table E? Do they remain realistic?

Secretariat Comment at CEO Endorsement Request

12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Unfortunately, the GHG ER reductions document provided under the "Documents" section of the GEF Portal cannot be opened, so we couldn't check the GHG calculation.

Grateful if you could please re-load the document (we can download all other documents except this one) or send it to the GEF team separately. As a reminder, please note the GHG ER shall be estimated based on the lifetime of the mini-grids instead of the duration of the project.

Also, please note the following comments:

- GHG mitigated have been reported under both sub-core indicators, i.e. 6.1. carbon sequestered or emission avoided in the AFOLU, and 6.2. emissions avoided under AFOLU. From the project activities, the project is not sequestering or avoided emissions in the AFOLU sector, so please update the Core Indicator section accordingly.

- There seems to be some inconsistencies in the estimated GHG emission reductions. For instance, in the Core Indicators section 6.2. the project reports 762 tCO₂eq direct emission reductions and 199,000 tCO₂eq indirect emission reductions, while in the Global Environmental Benefits section 6, it is reported 20,500 tCO₂eq direct and 5,500 tCO₂eq indirect. Please clarify and amend accordingly.

- Also, please explain the differences between emission reductions mitigated and beneficiaries at Program Framework Document stage and CEO Endorsement stage.

Agency Response

15/12/2022 KH

- Our apologies. The GHG document (Prodoc Annex 12) will be re-uploaded.

Asset lifetime for GHG calculation is acknowledged.

Refer to uploaded Prodoc Annex 12.

- Our apologies. An error may have occurred while uploading to the GEF Portal, as in the template CEO ER Annex F (GEF-7 Core Indicator Worksheet), AFOLU fields were left empty as intended.

Refer to template CEO ER Annex F GEF-7 Core Indicator Worksheet (p.44)

- Thank you. The correct figures are: direct: 20,571 tCO₂e; indirect: 5,472 tCO₂e.

Figures corrected in CEO ER Annex F - GEF 7 Core Indicator Worksheet (p.44).

- The estimated emission reductions and beneficiaries reached at CEO ER are somewhat lower than expected at PIF. This is in part due to adjustments in the AMP's calculation methodology and the uncertainty margin in the input parameters.

With regard to beneficiaries, please see the following text in Annex 12? People served per kW of installed capacity. Assumptions on the number of people served by each minigrid have been revised downward with respect to PIF stage. At PIF phase each of the project's minigrid

systems was assumed to have 10 kW of installed solar capacity and serve a population of 100 households or 500 people per minigrid. This resulted in an implicit assumption at PIF phase of 50 people served per kW of installed capacity. At CEO ER stage, the assumption is that each greenfield minigrid will serve 10 people per kW of installed capacity while the PUE Overlay minigrids will serve 3.4.?

With regard to GHG emission reductions, the lower indirect GHG emissions reductions target is the result of updated electrification figures for STP from the SDG7 Tracking progress Report published in 2022; since the electrification rate has increased from 71% in the 2020 report to 76.6% in the 2022 report, the total population susceptible to minigrid electrification post-project, is lower.

* Refer to Prodoc Annex 12.

Section 5 of Prodoc Annex 12 explains the differences in project targets between the CEO endorsement request phase and the PFD phase. Section 5.1 (Pilot-derived targets) provides explanations for the reduction in direct GHG emissions avoided as well as the reduction in direct beneficiaries from the minigrid pilots. Section 5.2 (Indirect GHG ER) explains the differences in indirect GHG emissions avoided from minigrids to be developed post-project.

Part II ? Project Justification

1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response

2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

Yes, with comments. Please explain the current energy subsidy scheme in the country. This would help further understand the selected business model for the project.

Agency Response

15/12/2022 KH

Please note that STP does not have a subsidy scheme for electricity in place. Instead, the tariffs are regulated but are too low to recover fuel and system costs. The tariffs have not been updated since 2007. Declining hydropower and increasing thermal power have increased the cost per energy unit produced, giving rise to a huge financial deficit accrued by the utility EMAE. A revised tariff model has been prepared by the regulator (AGER) with World Bank support (2020), but has not been adopted. By consequence, EMAE's immediate cash needs (including fuel and wages) are borne by the State. The latter mechanism can be viewed as a subsidy to the sector as a whole. Several multilateral programs are aimed at improving the sector.

It is of paramount important that subsidies in STP's energy sector, if applied, shall be appropriate and targeting those end-user groups who most need them. The 2017 ESMAP survey evaluated energy use among households, including those in rural areas. Data covering all end-users including SME, have not been collected. There is great potential to provide quality energy services and tailored financial products (including subsidies) to end-users.

See CEO ER, ¶14. Further, Prodoc ¶7 outlines the tariff model in vigour in more detail:

¶The electricity tariffs in STP are not cost-reflective and EMAE is estimated to incur in a loss of about US\$ 0.07 per kWh sold. The last tariff update dates to 2007. EMAE's customer base in 2017 was 43,642 connections (37,205 households and 6,437 other categories). There are 14 tariff categories, including: a social tariff of 6.9 US\$/kWh (100 kWh/month); commercial customers and services (15.7 US\$/kWh); while public entities are charged the highest tariff of 40.3 US\$/kWh. On average tariff is 22.4 US\$/kWh. In practice, public entities not always pay the invoiced electricity consumed by them. A 2017 ESMAP study of household energy use in STP revealed that only 60% of the population can afford to pay for the service, not in the least because customers must pay a high upfront connection fee.¶

The following text (Prodoc ¶16) has been inserted into the CEO ER (new ¶15) to clarify the end-user context:

¶As related to the end-user market, a characterization of final energy uses in the commercial and industrial sectors has not been made yet. Electricity generation for self-supply is allowed in STP and is common practice in the form of diesel gensets (among those who can afford this). STP does not have a framework of incentives for RE equipment (and neither for EE appliances). In fact, substantial upfront taxes, duties, and levies exist that are applied to the import of goods, including for energy purposes (exemptions are possible however, such as for EMAE). The overall context is demonstrated by STP's poor performance in ease of doing

business, ranking 170th among 190 economies. There are plans for gradual integration of the Economic Community of Central African States (ECCAS) enabling a free market for goods and services, but these processes are lengthy. In the absence of a Value Added Tax (VAT) system in STP, small businesses are not encouraged to formalize, and are characterized by low competitiveness, little investment capacity, and poor access to credits. The tertiary sector represents 60% of GDP and is largely informal.?

3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?

Secretariat Comment at PIF/Work Program Inclusion
1/17/2023 PM:

Cleared.

12/16/2022 PM:

No. Thank you for the clarifications provided and for updating the CEO Endorsement document accordingly. Please note that the new table added to the CEO Endorsement document on the type of pilots includes the following language: "GEF funds and co-finance will go towards investments required to retrofit one or more existing diesel minigrids and set up and verify adequate business operations". Kindly note that GEF funds can exclusively be used for investments on renewable energy equipment. The GEF funds cannot be used to support investment in diesel generators, this could still be supported by the co-financing resources. Please amend the sentence above accordingly.

9/26/2022 PM:

No. Please address the following comments:

- Please add the project Theory of Change (ToC).
- Section "1.b Project Map and Coordinates" provide the specific coordinates for the three pilot areas. However, under the description of the proposed alternative scenario, no further information has been provided on the selected project sites. Please elaborate further on the project sites, and include a reason why these sites have been selected. If pilot sites have already been identified, also please explain whether productive uses of energy has been identified in the selected areas.
- The PPG has been helpful to confirm that the market size in STP is small with limited scaling up potential. As such, the project has identified 2 niches:

- Urban and peri-urban population connected to the main grid;
- Smaller rural population.

When describing the 3 selected pilots, please provide more information on the nice they belong to.

- Since one of the two identified niches is urban and peri-urban population connected to the main grid, we understand the project will be supporting extension of existing diesel grids, i.e. hybrid mini-grid. If this the case, please elaborate this further in the CEO Endorsement request and specify which pilots are hybrid mini-grids and which are new renewable mini-grids. Also, please provide more information under the risk section provide a mechanism to avoid further development of diesel systems.

- Mini-grid business model & PPA. While we understand that public utility is the prevailing business model for mini-grids in STP, the CEO Endorsement document does not provide enough information on the business model used for the implementation of the pilots. We understand some of the features of the business model would be defined during the selection of the communities, since the model varies by ownership, size and customer. But overall the proposal would benefit from a more in depth explanation on either the business model selected or its selection process. Some of the information missing is the following:

- As per the proposal, it seems the proposed business model is a utility mini-grid, meaning that the government would be the owner of the mini-grids. Who will be responsible for their maintenance and operation? Please explain why this is the most suitable business model for the proposed project. Also, going forward and to ensure its sustainability, the business model shall be flexible and allow for a gradual increase of private sector participation in future mini-grid projects.

- Does the utility expect any revenue collection through the PPA (Power Purchase Agreement) ? If so, is there analysis of the ability and willingness of end user to pay or will this be part of the project? What about affordability of tariffs and metering technology?

- What is the role of the private sector? Just supplier of the solar panels?

- Potential uses of energy is key for the expansion of mini-grids. Identification of potential uses of energy in the selected communities is key.

- Please provide a mechanism to ensure the deployed mini-grid will be used for lifetime (20 years) including governance structure as well as a table explaining ownership and mini-grids operation.

- Please elaborate further on how the project will ensure replacing batteries and converters as well as O&M of the whole system during the lifetime.

- A Financial Facility is proposed under Component 3. This is very much welcome, but further reference shall be included to local banks as potential financiers of this facility, and how they will be engaged further under this Facility. Also, how will this Facility build upon the financing facility established under the National Sustainable Energy Investment Plan (NSEIP) supported by UNIDO? Please clarify and avoid potential overlaps.

- Also, if possible at this stage please provide more information on the type and expected size of solar panels.

Agency Response

01/13/2023

The sentence in CEO ER §52, has been amended as follows: "GEF funding will not be used to finance interventions to hybridize existing minigrids where the diesel capacity is increased. In no cases will GEF funding ever be invested in fossil fuel power generation assets."

The GEF funds will go towards adding PV-capacity to the existing diesel minigrid and progressively phasing out the legacy diesel plants, alongside upgrading of distribution grids, implementation of metering service and adequate business operations."

15/12/2022 KH

- Thank you. Information is added to clarify the ToC of the overall AMP (as presented in the PFD), as well as the current status of the delivery model in STP.

Text inserted, Prodoc, ¶32 and CEO ER, ¶37. Table inserted at CEO ER, ¶41.

- Acknowledged. Some further explanation has been provided.

Text has been added at CEO ER, ¶80-81, as follows:

The PPG has identified three specific minigrid schemes (or: business cases), which are as follows: (1) Isolated PV/battery minigrids: Southern coast of Sao Tome Island; (2) Grid-tied PV minigrids: urban and peri-urban area in and around Sao Tome capital; and (3) PV-based micro-grids (even lantern schemes): small, currently unserved communities in central part of Sao Tome Island. These pilots are conceptually defined. No specific site has been selected as yet. The viability of each, including compliance with UNDP and GEF safeguards as well as technical and economic feasibility, needs to be further assessed, after which the Project will support implementation of one or more of these business cases.

The table below provides indicative areas (coordinates) for each of the models, in respectively, the South (1); peri/urban area (2); and (3) Central, unserved, area; of Sao Tome Island. For a map, reference is made to Annex E of this document.

- Acknowledged. Prodoc Table 3 has been expanded and inserted into CEO ER.

Table 3 inserted at CEO ER, ¶51.

New text from Prodoc inserted at CEO ER ¶51-55 and ¶62-65.

- A table has been added in the CEO ER explaining the type of beneficiaries (niches) and the pilot type.

The risk table has been updated and provides mitigation measures to avoid further development of diesel systems for powering of minigrids. Please refer to the risk comment for a further explanation on the status of diesel.

The hybrid/diesel pilot (Scheme 1) appears complex due to a legacy of management flaws (including no-enforcement of payment collection) which makes this scheme less likely to be selected as the pilot of the project. However, in case the Minigrid Scheme 1 (hybrid/diesel) should be selected as the pilot, the GEF funding will only be used for the RE portion of a hybridization of an existing minigrid. No GEF funding will be used for fossil fuel generation. New wording has been inserted across the documentation to capture this.

Prodoc Table 3 inserted at CEO ER, ?51.

An explanation has been added to the Atlas Risk table (Prodoc Annex 6), Risk 12.

New wording has been inserted in tables in paragraph 52 of CEO ER, and Table 3 of prodoc, (page 28).

- The final choice of pilot model will be made during project, implementation as part of the minigrid pilot plan (output 2.1).

The project document does set out proposed Minigrid Schemes, which will be further evaluated as part of the minigrid pilot plan. Below a clarification is provided on the business model types:

- Re minigrid scheme 1, the public utility is the prevailing business model for public electricity supply in STP, both the main grid, and the three isolated grids in the South (targeted by Minigrid Scheme 1).
- While PPA is now allowed in STP, no plans are in place to apply this modality to minigrids. Note that an aerial transmission line is being constructed to interconnect the three isolated grids. However, the national system lacks power to feed this line; while the isolated diesel systems are weak and often without fuel.
- Minigrid Scheme 2 essentially works towards the establishment of grid-tied 'smart grids', which are contemplated in the PANER. The AMP aims to pilot a series of RE/EE investments (co-investment with end-users), in which there is no direct role for the utility. Ideally, we pursue a fully decentralized local grid, behind the connection point (transformer) managed as a sustainable minigrid. Such a model is not yet allowed by law as the utility EMAE has the monopoly. Hence, we will need to adjust the ambition level to what is legally possible while pushing forward specific regulation for operationalization of the PANER. This scheme aims mobilizing SME and sizeable households with capacity and willingness to invest to ensure high-quality supply meeting their needs.
- Minigrid Scheme 3 are small-scale microgrids/PV lantern schemes, built around a community service such as a health centre. Such schemes will largely rely on grant funding from GoSTP or development partners. The rationale for the AMP is to ensure sustainable management practices including billing schemes, and foster cost-reduction drivers.

From the above one can conclude that each scheme has a different business model, funding modality, and beneficiary group.

- Once again, the final choice of pilot model will be made during project, implementation as part of the minigrid pilot plan (output 2.1). As explained in the responses above, the Project has provided three minigrid schemes that will need to be assessed further, building on the presented, initial SWOT analysis.

Irrespective of the final scheme uses, ensuring financial sustainability, including maintenance and operation, for the entirety of the asset minigrid asset lifetime will be a central objective. The pilots will be implemented following the 'principles' laid down in Box 3 of the UNDP Project Document (on page 33). To make this fully clear, this has been articulated as a new principle #6 in Box 3

The language for the new principle is as follows: ' Principle 6. **Financial sustainability.** The business and delivery models of the pilots will be determined during project implementation as part of the minigrid pilot plan. A core principle to be upheld will be to that all business models ensure the full financial sustainability of the minigrid pilot for the entirety of its asset lifetime, including the maintenance, operation and replacement of key equipment such as batteries and inverters. These maintenance, operation and financial sustainability considerations will be evaluated, and must be in place, before the provision of any GEF INV to a minigrid pilot. '

As to the utility model, the AMP holds to the opinion that any of the supported pilots shall meet minigrid industry's highest standards in order to serve as a paradigm for the sector. The AMP wants to keep the utility, being a key sector stakeholder, on board all along the process. But if the utility is not able or ready to perform as per the required standards, operation shall be assumed by a capable, dedicated entity.

In line with your last observation, small minigrids (isolated as well as grid-tied) may be founded as mixed-capital ventures to reduce real and perceived risks thereby encouraging private partners to participate. Given STP's weak fiscal position, GoSTP would need back-up from its multilateral partners to be able to participate in PPPs. The AMP strives at building momentum into this direction, inter alia by fostering the national dialogue.

See above.

- No, the utility does not foresee PPA relations with minigrids operated by third parties.
- User willingness to pay is partly mapped. In some areas, bad attitudes have been created due to unenforced payment collection, causing the population to view the electricity service as a 'right for free'.
- Simplifying matters, the lowest income strata refrain from accessing the electricity grid. This is less of an issue of tariff affordability, but rather of the prohibitively high connection fee with EMAE and of a lack of savings and access to credits for house-wiring and appliances (as per ESMAP 2017).

- More wealthy people are usually already connected. For these, tariffs are low enough so people take the intermittency of the service for granted. This picture may change once the revised tariff model (AGER/WB, 2020) would be approved by GoSTP.
- Metering of the service is now advancing thanks to AfDB support programs.

Response has been integrated into new Prodoc section 39-50.

- Again, the final role of the private sector will be a function of the pilot scheme/model selected in the minigrid pilot plan in year 1 of project implementation.

The project takes a position to encourage private sector involvement in pilots and more generally. The pilots will be implemented following the 'principles' laid down in Box 3 of the UNDP Project Document (on page 33). To make this fully clear, this has been articulated as a new principle #7 in Box 3

'Principle 7. Private sector involvement. Where possible, recognizing the private sector's entrepreneurship, efficiency and access to capital, private sector involvement in minigrids pilots will be encouraged. This may take a range of forms, from suppliers, to construction, to build own operate models?

- Definitely. Productive use of electricity has been considered while developing the three proposed Minigrid Scheme:

Scheme 1. The isolated grids in the South already have productive uses of electricity in place, such as small commerce, refrigeration etc. As mentioned, current utility supply is intermittent but cheap (low tariff with payments often not charged due to irregularities). Hence, people take benefit to obtain cash income but they do not invest to grow further or improve.

More dynamic and wealthy entrepreneurs also exist; they don't view interconnection to the isolated grids nearby as a viable solution to their needs. These demand quality, for example for ecolodges targeting (foreign) tourists. Owners invest over 100,000 US\$ (all equity) in autonomous PV-battery systems to ensure adequate service levels to satisfy customer requirements. The investment is recuperated through the revenue stream from tourism. These entrepreneurs are a minority group who has own capital.

Scheme 2 (grid-tied): Productive uses are an inherent driver. SME that already has access to utility power, is interested in RE-based supply to secure grid quality as an enabler for critical processes (ideally as part of a local smart grid). These include restaurants and ice makers, barbers and beauty parlors, small manufacturing workshops and repair shops (welding). This group requires an ESMAP Tier 4/5 quality which is currently not offered by the utility, whose supply is cheap but erratic ? which is an impediment for STP's SME sector to grow and invest.

Scheme 3 (microgrids): Lighting is the prime electricity service need, enabling women to sell food and drinks after dusk. Appliances such as blenders and refrigerators would widen the possibilities for preparing and storing food and drinks. However, water pumping and purification of water are mentioned as the most urgent services (to prevent health problems).

*Response has been integrated into new Prodoc section 39-50.

Once again, the final choice of pilot model will be made during project, implementation as part of the minigrid pilot plan (output 2.1).

Our response to this question/comment is similar to an question/comment.

Irrespective of the final scheme uses, ensuring financial sustainability, including maintenance and operation, for the entirety of the asset minigrid asset lifetime will be a central objective. The pilots will be implemented following the principles laid down in Box 3 of the UNDP Project Document (on page 33). To make this fully clear, this has been articulated as a new principle #6 in Box 3

The language for the new principle is as follows: Principle 6. **Financial sustainability.** The business and delivery models of the pilots will be determined during project implementation as part of the minigrid pilot plan. A core principle to be upheld will be to that all business models ensure the full financial sustainability of the minigrid pilot for the entirety of its asset lifetime, including the maintenance, operation and replacement of key equipment such as batteries and inverters. These maintenance, operation and financial sustainability considerations will be evaluated, and must be in place, before the provision of any GEF INV to a minigrid pilot.

* Ownership and operation arrangements are included in Prodoc Table 3.

This table is presented at CEO ER, 51.

We understand and share your concern. STP is a small island state. Manufactured items are imported and can in theory all be monitored. Yet, institutional capacity for tracing of items is weak, and waste collection mechanisms are underdeveloped or absent. Also the legal framework for waste management is not well developed.

The PPG mission could observe that small electronic waste items, plastics, etc. are easily dispersed in the environment. Moreover, local contractors do not often follow good practices to avoid environmental externalities, including waste recovery.

In this context, the AMP proposes a closed-chain approach to keep track of system components during the full lifetime of a minigrid. The responsibility would rely with the minigrid operator as a contractual obligation, as part of the broader O&M package. Given STP's small size, local opportunities for re-use of batteries and devices are virtually absent,

hence items should be re-exported. Especially batteries may still have a significant salvage value making re-use and re-cycling abroad worthwhile. Importantly, operators must be granted long-term contracts to ensure the required continuity.

The AMP envisions that the growth of the minigrid market in West Africa will give rise to a series of ancillary services which are best developed regionally to exploit scale benefits. We believe that specialized technical services, including a circular approach to system components, require a pool of resources to be shared by the countries. For a SIDS like STP, this is particularly the case. Note that proper management and handling of waste, including e-waste, is part of the AMP environmental and social safeguards and included as such in the ESMF.

Note that proper management and handling of waste, including e-waste, is part of the AMP environmental and social safeguards and included as such in the ESMF.

* Response has been incorporated into Risk Log, Prodoc Annex 6 (Risk 14).

Please see previous comments for the role of local banks. Through the national dialogue, as well as inter-agency meetings between UNDP and STP's development partners, the Project will continually adjust to avoid overlaps. The PPG team has inquired with UNIDO about the agency's plans to provide continuity to its work in STP and has informed that the current UNIDO/GEF project is scheduled for termination in 2023. The AMP sets forth a flexible approach to provide continuity to the finance agenda, thereby complementing baseline activities.

As finance concerns, we envision the following channels as most relevant:

1. Private investment, in the short term limited to mobilization of equity from end-users. Some bank credit lines exist, but appetite from the market is very weak.
2. Lending schemes by multilateral lenders targeting the private sector (usually through a second-tier bank).
3. Ongoing lending to the GoSTP (sovereign loans/grants) to continue investment in the power sector. Investment in (public) minigrid assets shall be mainstream into these packages.
4. Guarantee schemes enabling the Client (typically GoSTP, EMAE) to offer long-term contracts to a Minigrid Operator. Note that PPAs in recent years have not prospered, precisely because candidate IPPs considered the counterpart risk as unacceptably high. Guarantees are therefore needed as a backup, both for IPPs and MGs. Most likely, such guarantees shall derive from negotiations between the multilateral banks and the GoSTP.

Given the complexity and scope of the matter, the AMP Project does not intend to establish a Financing Facility alone. Rather, it seeks to build momentum and complement expertise towards the establishment of a permanent facility.

- Please note that specific technical specifications have not been prepared at this stage. Among other aspects, special attention shall be given to tropicalization of solar panels, batteries, controllers and connectors, given the hot and humid climate in the country.

* Technical requirements specifically mentioned in Prodoc, (new) ?48.

4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response

5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response

6. Is there further and better elaboration on the project's expected contribution to global environmental benefits or adaptation benefits?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Please see previous comments under the Core Indicators section. Please explain discrepancies in the figures for Core Indicator 6 (GHG emissions mitigated) and re-upload the GHG calculation sheet. Also, if adaptation benefits are expected, such as improving grid resilience, please incorporate them if need be.

Agency Response

15/12/2022 KH

Discrepancies are noted with thanks and are corrected.

In the particular case of STP, we believe that minigrids can bring the combined benefit of supplying those people currently unserved or underserved, and supporting a more decentralized and resilient national power grid based on renewable energy sources (adaptation to natural events including climate change, as well as to reduce dependencies on global fossil fuel markets).

A methodology to quantitative adaptation benefits is not in place for STP; by consequence, we have not claimed related environmental benefits at CEO ER. However, we believe that the AMP, together with GoSTP and its development partners, could push forward such exercise to make visible the benefits of a paradigm shift in the national energy sector. CEO ER Paragraph 106 hints into this direction within a somewhat narrower scope, suggestion that power system interruption indices (SAIDI/SAIFI) can be monitored and directly used to calculate (reduced) economic losses as power quality improves. Such information can be of great value to guide sector policy making and investment decisions.

Figures corrected in CEO ER Annex F - GEF 7 Core Indicator Worksheet.

See CEO ER, ?120-123

7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response
Project Map and Coordinates

Is there an accurate and confirmed geo-referenced information where the project intervention will take place?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. In addition to the coordinates, please in the CEO Endorsement document (not only on the ProDoc) include a map of the country with geo-referenced information on the three pilots (if already selected).

Agency Response

15/12/2022 KH

Please note that maps are provided in the CEO ER, Annex E.

We would like to clarify that the three partial maps show representative areas to implement the specific Minigrid Schemes, which are as follows:

MG 1: Isolated PV/battery minigrids: Southern coast of Sao Tome Island.

MG 2: Grid-tied PV minigrids: urban and peri-urban area in and around Sao Tome capital.

MG 3: PV-based micro-grids (even lantern schemes): small, currently unserved communities in central part of Sao Tome Island.

As mentioned above, these MG pilots are conceptually defined. No specific site has been selected as yet. The Project will carry out additional assessments to decide which pilots will be pursued.

* Please refer to CEO ER, Annex E.

Child Project

If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?

Secretariat Comment at CEO Endorsement Request

9/26/2022 PM:

Yes.

Agency Response

Stakeholders

Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?

Secretariat Comment at CEO Endorsement Request
1/13/2023 PM:

Cleared.

12/16/2022 PM:

No. Many thanks for including a the list of stakeholders consulted. In addition, please in the CEO Endorsement document add a summary of the Stakeholder's Engagement Plan, including some of the information provided below in this review sheet (means and timing of engagement with stakeholder, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement).

9/26/2022 PM:

No. A very comprehensive stakeholders engagement plan has been provided as a separate document. However, please address the following comments:

- Provide information on when the stakeholders consultations during the PPG phase took place and how. If available, please provide the minutes of the consultation.

- It is not clear whether the project will benefit or impact any indigenous or minority peoples and local communities. Since we understand the sites for the three pilots have already been selected, please show evidence that they have been consulted and how.

Agency Response

01/13/2023

A summary of the SEP has been incorporated into the CEO ER (\$95-103).

15/12/2022 KH

Consultations took place:

1. Kick-off virtual event 12 April 2022.
2. Mission to STP by PPG Team Leader with support from National Consultant and UNDP CO, from 19-27 June 2022.
3. Validation workshop on 27 June 2022.
4. Separate calls/meetings with AfDB and World Bank.

A list of people/institutions visited and consulted by online meetings, is annexed.

* Listing of stakeholder engagement events added to Prodoc, Annex 8 and uploaded on the portal.

Please note that:

- In STP no indigenous peoples or minority peoples have been identified. (In this respect, STP is an exceptional case in the AMP Round 2 portfolio).
- Some site visits and interviews with households as well as private business owners were conducted by the PPG consultants. Especially in the small communities, the meetings were kept low-key to avoid creating expectations, as specific sites have not been selected yet.
- On the other hand, we are fully aware of the great importance to manage local expectations, customs, intended and non-intended impacts, as well as gender-related, environmental, access to resources, and human rights aspects. The ESMF is specifically put in place as a framework to structure, monitor, and adjust all project actions to maximize positive impact while avoiding adverse effects. Among other measures, the Project will contract community engagement experts to prepare and accompany communities, individual beneficiaries and other local stakeholders along the process.

Note that representatives from the District chambers and from the Autonomous Region of Principe (island) took part in the stakeholder events.

Gender Equality and Women's Empowerment

Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?

Secretariat Comment at CEO Endorsement Request
1/17/2023 PM:

Cleared.

12/16/2022 PM:

No. Same as for stakeholders, please include in the CEO Endorsement document a summary of the gender analysis and plan.

9/26/2022 PM:

Yes.

Agency Response

A summary of the Gender Analysis and Action Plan has been incorporated into the CEO ER (\$105-113).

Private Sector Engagement

If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared. Thank you for the clarifications.

9/26/2022 PM:

No. The proposal states that during PPG dialogue with national private partners has been initiated. Also, further engagement with the private sector is expected to take place during the call for proposals. However, the proposal has not elaborated further on how it will engage local banks as key financiers to help overcome existing financial barriers and attract developers.

Agency Response

15/12/2022 KH

Please note that STP is a very small country (220,000 inhabitants). Some commercial banks exist; one even offers a commercial credit line for RE systems. According to local entrepreneurs, taking a bank loan is weary and expensive; by consequence, people tend to rely on own money (100% equity). Note also that, as of 2020, unemployment was estimated at 13.9%. Most of the population is engaged in small scale agriculture and fishing. Approximately one-third of the population lives below the poverty line of \$1.90 per day, with poverty higher in urban areas. It is worth noting that 61% of the adult population do not have a bank account. .

Also, mobile money solutions are not yet in place while penetration of mobile phones is about 50%;in many places in the mountainous interior, mobile phone connections are not available or not reliable.

Within this context, the PPG team expects that local banks **can** be relevant for small businesses and formalized households **if** loan products match the profile of this group. Commercial banks can thereby act as the conduit to channel concessional loans/grants targeting the private sector. The AMP envisions bringing together the end-user sector (by mapping needs and financial expectations), local banks (through training and awareness raising), and the development banks (to prepare/update loan proposals).

We do not expect that local banks will play a role in the near/medium future in STP to finance electric grid systems. Moreover, current investment needs are covered by multilateral development banks supporting the Government (sovereign loans/grants). The amounts involved by far outmatch commercial lending to prospective energy consumers (?prosumers?).

Risks to Achieving Project Objectives

Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Please address the following comments:

- Disposal of solar panels. The proposal shall include an explanation and risk mitigation measures for the safely disposal and/or recycling of solar panels. This point shall be linked to the sustainability section of the CEO Endorsement document, since by ensuring a correct disposal of solar panels we are contributing to the overall sustainability of the project.

- Please describe the project's risk mitigation strategy to avoid the use of forced labor in the supply chain of the solar panels to be imported.

- Regarding the risk and impact due to COVID-19, more detailed work should be done per the following three questions:

1. General: Describe briefly how the pandemic overall is addressed in the project, including associated impacts, risks and opportunities. Projects are required to identify and establish likely impacts and risks from COVID-19, and how they will be dealt with in the context of delivering global environment benefits and climate adaptation and resilience benefits;

2. Risk analysis: Please consider any risks and measures to deal with the risks that are caused by COVID-19 and post-COVID-19. These risks include (1) availability of Technical Expertise and Capacity and Changes in Timelines in the selected provinces; and (2) any expected financing from the government and co-financing from all stakeholders. Please describe further how risks from COVID-19 have been analyzed and mitigation strategies incorporated into the design of this project.

3. Opportunity analysis: Describe further how the project has identified potential opportunities to mitigate impacts (if any) caused by COVID-19 to deliver GEBs and/or climate adaptation and resilience benefits, and contribute toward green recovery and building back better.

Agency Response

15122022 KH

Thank you for your comment. The Prodoc elaborates on this point. At the national level, the AMP will support government to put in place specific regulation and effective verification schemes. Recycling and disposal of solar panels are best pursued through a regional framework for e-waste, including the construction of waste treatment facilities.

This risk is covered in the Atlas Risk Log, No. 14

* ATLAS Risk log (Prodoc, Annex 6) has been expanded on this issue (Risk 14).

The issue of alleged forced labor concern two areas of AMP national projects, including this STP project.

- Area 1: with regard to AMP national projects? GEF INV support, together with co-financing, into minigrad pilot investments. These pilots will directly procure PV materials.

- Area 2: with regard to AMP's general support to develop and grow minigrid markets, via policies and capacity building etc., which may then result in the general expanded use of PV materials.

The mechanism with which AMP will address alleged forced labor risks is via UNDP's safeguards policies and architecture.

- All AMP national projects have flagged standard #7 (S7), on labor, in their safeguard screening as an area of risk. This is the entry point via which risks of alleged forced labor will be addressed during implementation.

- AMP's safeguards framework (ESMF) document requires that during implementation each national project and pilot develop various safeguards documents, including safeguard assessments and plans (ESIAs, ESMPs) which further elaborate the approach to identified risks. For example, to ensure compliance with S7, the ESIAs and ESMPs are required to include written labour management procedures (LMPs) that will address these issues.

For issues related to AMP national projects' investment in minigrid pilots (Area 1), UNDP envisages mitigation measures against possible forced labor issues related to: (a) enhanced due diligence in minigrid developer's procurement exercises and contracting, including (i) supplier self-declarations and codes of conduct for employees related to supply chain inputs and (ii) legal clauses certifying/representing against forced labor; and (b) development of a monitoring framework for identified risk areas regarding labor issues over the course of project implementation, with accompanying monitoring indicators and methodology, including record keeping pertaining to solar PV modules.

For issues related to general market support (Area 2), UNDP envisage that the AMP's regional and national projects can play an important role in the general market on awareness-raising, signalling and capacity-building with regard to safeguards measures on possible forced labour issues in the PV value chain. In particular, the AMP regional project's components on knowledge products and communities of practice will be explored as mechanisms to disseminate knowledge tools and good practice on these matters. Further, the AMP regional project will track developments and best practices in addressing this risk, including on a comprehensive solution around supply chain traceability and appropriate verification mechanisms, and share them with national projects.

Thank you for your orientation We have expanded on the interrelation with the COVID-19 pandemic, and preparedness for potential future pandemics, in the Prodoc and the CEO ER.

* Text concerning context and opportunities inserted into Prodoc, new 54-55, as below. Key paragraphs concerning COVID-19 have been copied into CEO ER, 87:

The COVID-19 pandemic presents what is undoubtedly one of the greatest challenges ever faced by the Planet. There have already been major consequences for the World's poor and

vulnerable, in terms of the direct impacts of the public health crisis on health and mortality, and indirect impacts on social, economic and political systems. The risk of a new pandemic remains, thus embedding the lessons learned from the COVID-19 pandemic is essential for any new initiative such as the African Minigrids Programme. Screening for risks, particularly in a rapidly changing and uncertain context such as a pandemic, needs to be constant to inform rapid response and decision making.

The overall approach of this programme in the context of a potential pandemic situation contemplates in the first place the assessment of the programme's relevance through three main questions, namely (i) the likeliness of a change in national priorities; (ii) the validity of original assumptions and theory of change in the programme with regards to vulnerable groups and drivers of change; and (iii) the need for UNDP to re-prioritize existing programming and rapidly deliver a new programme offer to help the country respond. Access to energy and in particular, access to clean energy and the promotion of scaled-up commercial investment in RE technologies, are expected to remain a priority even under a pandemic situation.?

- Thank you. We have incorporated several risks related to the direct and indirect impacts of COVID-19 to project implementation (timelines) and to the quality and feasibility of outputs and outcomes delivered.

Please note that STP does not have provinces. As a tiny SIDS, the country faces systemic challenges to secure supplies from abroad. Supply chain disruptions are severely affected by the impact of COVID-19 on global product sourcing and logistics.

* The following risks have been incorporated into the ATLAS Risk table (Prodoc Annex 6 :

- *?Health vulnerability related to COVID19 (or any other pandemic) for project stakeholders, including communities, project workforce, managers, partners, government, etc.*
- *Constraints around planned M&E activities due to restricted movement and safety measures due to COVID19 (or any other pandemic).*
- *Reputational risk related to communities, government and development partners caused by impact related to COVID19 (or any other pandemic).*

Disruptions in timely availability of international Technical Expertise due to COVID19 (or any other pandemic) impact such as travel restrictions?

- The AMP has identified opportunities for building back better and greener, offered by the S?o Tome and Principe COVID-19 SERP (Socio Economic Response Plan), ensuring and sustaining a focus on the poorest and leaving no one behind. In particular, Pillar 3 of the SERP offers an adequate canvas for the AMP since it includes areas of investment in which the AMP could leverage the potential of the use of solar energy, especially for productive uses. Areas that will be explored are the encouragement of business innovation utilising the untapped potential to maximise added value in the transformation of local product through the

use of clean sources of energy; the promotion of labour-intensive public works mechanisms; the improvement of resilience of farmers/fishermen.

The project will also endeavour to trigger bottom-up adaptive innovation, establishing safeguard mechanisms with beneficiary communities and project stakeholders, with whom a more strategic and focused collaboration, especially with local and national actors, will be sought.

* Text concerning context and opportunities inserted into Prodoc, new 55-58, as follows:

The AMP has identified opportunities for building back better and greener, offered by STP's COVID-19 SERP (Socio Economic Response Plan), ensuring and sustaining a focus on the poorest and leaving no-one behind. In particular, Pillar 3 of the SERP offers an adequate canvas for the AMP since it includes areas of investment in which the AMP could leverage the potential of the use of solar energy, especially for productive uses. Areas that will be explored are the encouragement of business innovation utilizing the untapped potential to maximize added value in the transformation of local product through the use of clean sources of energy; the promotion of labour-intensive public works mechanisms; the improvement of resilience of farmers/fishermen.

The AMP Project will also endeavour to trigger bottom-up adaptive innovation, establishing safeguard mechanisms with beneficiary communities and project stakeholders, with whom a more strategic and focused collaboration, especially with local and national actors, will be sought.

Coordination

Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?

Secretariat Comment at CEO Endorsement Request

12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Please address the following comments:

- See previous comment and clarify whether the implementing agency is MIRN (Ministry of Infrastructure and Natural Resources) or MORPINA (Ministry of Public Works, Natural Resources and Environment).

- Also, it is noted that the exception for execution services to be provided by UNDP (i.e. limited support to NIM) was approved by the GEF Sec on July, 28, 2022. Please under section "6. Institutional Arrangement and Coordination" include a reference to the execution support services to be provided by UNDP, detailing the type of activities to be supported as well as the estimated amount.

Agency Response

15/12/2022 KH

- Please refer to Review Sheet Part I: The EA is: Directorate-General Natural Resources and Energy (DGRNE) at the Ministry of Infrastructure and Natural Resources (MIRN).

* Corrected in Portal

- Acknowledged.

* Relevant text has been pasted into the CEO ER, under section "6. Institutional Arrangement and Coordination, as requested (?107-108).

Consistency with National Priorities

Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?

Secretariat Comment at CEO Endorsement Request

12/16/2022 PM:

Cleared.

9/26/2022 PM:

Yes, with comments. Please add Table #1 of the ProDoc in the GEF CEO Endorsement document.

Agency Response

15/12/2022 KH

Acknowledged. Prodoc Table 1 has been inserted as requested.

* Table inserted at CEO ER, ?113 (section ?Consistency with National Priorities?).

Knowledge Management

Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables?

Secretariat Comment at CEO Endorsement Request

12/16/2022 PM

Cleared.

9/26/2022 PM:

No. The knowledge management strategy shall be further elaborated by:

- Proposing tools and methods for knowledge exchange, learning& collaboration;
- Proposing knowledge outputs to be produced and shared with stakeholders;
- Planning for strategic communications.

Agency Response

15/12/2022 KH

Please note that the AMP contemplates a common approach to Knowledge Management under guidance of the AMP Regional Project, as reflected in the PFD. The child projects, including STP, engage with the Regional Project and with each other, through their Component 4 (see Results Framework). A specific set of learning and knowledge products is prescribed to enable learning, accelerate minigrid market development and allow benchmarking of cost reductions across the AMP country portfolio. The results will be aggregated by the AMP Regional Project for sharing at international events and platforms.

* Please refer to Project Component 4 for details.

Monitoring and Evaluation

Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response
Benefits

Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

Yes, with comments. Please see previous comment on the inconsistencies in the GHG mitigated.

Agency Response
15122022 KH

Inconsistencies in the GEF-7 Core Indicator Annex have been acknowledged and addressed.

* Inconsistencies have been addressed.

Annexes

Are all the required annexes attached and adequately responded to?

Secretariat Comment at CEO Endorsement Request
1/17/2023 PM:

Cleared.

1/7/2023 PM:

No. There are several lines in the budget table (column expenditure category) that overlap with the text in the next column (detail description). Please amend.

12/16/2022 PM:

Cleared. The map is now visible in the CEO Endorsement document.

9/26/2022 PM:

No. Please address the following comments:

- Under Annex D please include a map in the CEO Endorsement with geo-reference information on the 3 pilot sites.

- On "Annex E: Project Budget Table". The CEO Endorsement mentions the "Program Manager/Coordinator" while the budget table "Project Technical Coordinator". Please unify to avoid misunderstanding. It is well noted that the Program Manager conducts both coordination and technical activities, as stated in the ToR provided in the ProDoc.

Agency Response

01/13/2023

This is addressed

15/12/2022 KH

- To our knowledge, maps and coordinates are provided in Table E of the CEO ER as submitted.

See above for a brief explanation for to interpretation of the maps.

* CEO ER, Table E (p.40)

- Thank you for noticing. We will correct and solely use the term Project Manager (PM) for this position.

* Correction made throughout CEO ER and Prodoc including annexes.

Project Results Framework

Secretariat Comment at CEO Endorsement Request
1/17/2023 PM:

Cleared.

12/16/2022 PM:

No. Unfortunately, we cannot see in the projects results frameworks a reference that Indicators 1 and 2 correspond to GEF's Core Indicators 6 and 11 respectively. Please add this reference if possible.

9/26/2022 PM:

Yes, with comments. In the project results framework, please include in parenthesis a comment that Indicators 1 and 2 corresponds to GEF's Core Indicators 6 and 11 respectively.

Agency Response

01/13/2023

The project results framework in Part IV: Annex A table reference is made in the RF (CEO ER Annex 4 table). Note that indicator 3 also responds to a GEF Core indicator (6.4).

15/12/2022 KH

Acknowledged.

* Reference is made to the corresponding GEF Core indicators as requested (in CEO ER and in Prodoc).

GEF Secretariat comments

Secretariat Comment at CEO Endorsement Request

9/26/2022 PM:

N/A.

Agency Response

Council comments

Secretariat Comment at CEO Endorsement Request

9/26/2022 PM:

Yes.

Agency Response

STAP comments

Secretariat Comment at CEO Endorsement Request

12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Please address STAP comments provided at the PFD stage, in particular:

1. The proposal presents an adequate list of stakeholders. However, the diesel generator industry is quite widespread in Africa and the project proponents need to consider how to ensure that they do not hinder project success. The project also need to consider incentives for alternative livelihoods for people involved in diesel generator industry.
2. What are the backups to prevent diesel generators from still being frequently used?

Agency Response

15/12/2022 KH

1. As explained in the ProDoc in the baseline there are existing isolated diesel systems in the islands, but they are weak and often does not possess any fuel. There are also existing hybrid/diesel pilot(Scheme 1) that the viability has been assessed in a SWOT amongst the

various other renewable delivery models and the hybrid/diesel has many management flaws and does not seem sustainable.

However, In case the Minigrid Scheme 1: Hybridization of existing, isolated, utility diesel-grid with RE generation, MG management model and payment scheme should be selected, an analyses and awareness-raising activities that expressly show the improved economics/costs and other co-benefits (e.g. health etc), of hybrid RE/diesel minigrids vis a vis pure diesel. The GEF funding will only be used for the RE portion of a hybridization of an existing minigrid.

2. A risk table has been also updated and provides mitigation measures to avoid further development of diesel systems for powering of minigrids. Please refer to the risk comment for a further explanation on the status of diesel.

* We have inserted the responses in Annex B of the CEO ER.

The SWOT and Risk Table updated in the Prodoc and CEO ER have also been updated.

In the case of STP, diesel is the main energy source for electricity generation to supply the main grid. It is government policy to reduce thermal (diesel) power and exploit domestic renewable energy sources. Moreover, the country's economy is too weak to pay for a sustained, reliable import of oil products, which has led to the declared energy crisis. (A substantial reduction of global oil commodity prices might alleviate the situation temporarily.)

In the absence of a robust generation and transmission infrastructure, the most likely scenario is therefore that existing large thermal power plants will remain on standby (often in deplorable conditions). The same is likely to happen in the three existing, isolated utility grids in the south of Sao Tome. Whether they remain operational and whether fuel will be available, is a question mark.

The GEF project considers upgrading/replacing of one or more of these minigrids, by a PV/battery generation. Hybridization with existing diesel may be an option to cover peak power. A detailed technical study shall determine the costs of fully phasing out the current diesel. Bottom line for AMP involvement is that these minigrids currently operated part-time by the utility, will become managed according to minigrid quality standards practices and exploited in a financially sustainable manner.

For other minigrids (microgrids around community services; and grid-tied minigrids with investment by end-users), diesel is not a viable option viz-a-viz PV/small battery storage.

Through the national dialogue and in line with government policy, the AMP will push forward for a full decarbonization of STP's power sector, which would be better adapted to STP's scale and physical conditions.

* Prodoc 25 outlines the context *With growing electricity demand and arrears in maintenance of a legacy of small hydropower plants, STP's electricity matrix has shifted*

towards thermal generation (diesel). In 2019, 94% (45MW) of generation capacity was non-renewable, and 6% (3 MW) renewable (5% hydro and 1% solar PV). Reportedly, the effective hydropower capacity had dropped to 1.22 MW in 2019. STP's (conditional) commitment made in its updated Nationally Determined Contribution (NDC) is to achieve 49 MW renewable energy (RE) electricity generation by 2030 (of which 32.4 MW solar, 14 MW hydropower, and 2.5MW biomass). Access to electricity is around 87% and increasing, but with large geographical and socio-economic disparities and supply issues. Following up on SDG-7, Government policy is to achieve 100% electricity coverage by 2030 as well as 100% access to clean cooking solutions. STP's overall energy balance however is still dominated by the use of traditional biomass (fuelwood and charcoal) which represent about 80% of total energy supplies.?

Convention Secretariat comments

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response
Other Agencies comments

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response
CSOs comments

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response
Status of PPG utilization

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

Yes.

Agency Response
Project maps and coordinates

Secretariat Comment at CEO Endorsement Request
12/16/2022 PM:

Cleared.

9/26/2022 PM:

No. Please provide a project map with geo reference information on the three pilot sites (if already selected).

Agency Response
15/12/2022 KH

Some further explanation has been provided.

* See previous comment/response on this issue.

Text has been added at CEO ER, ?80-81, as follows:

?The PPG has identified three specific minigrid schemes (or: business cases), which are as follows: (1) Isolated PV/battery minigrids: Southern coast of Sao Tome Island; (2) Grid-tied PV minigrids: urban and peri-urban area in and around Sao Tome capital; and (3) PV-based micro-grids (even lantern schemes): small, currently unserved communities in central part of Sao Tome Island. These pilots are conceptually defined. No specific site has been selected as yet. The viability of each, including compliance with UNDP and GEF safeguards as well as technical and economic feasibility, needs to be further assessed, after which the Project will support implementation of one or more of these business cases.

The table below provides indicative areas (coordinates) for each of the models, in respectively, the South (1); peri/urban area (2); and (3) Central, unserved, area; of Sao Tome Island. For a map, reference is made to Annex E of this document.?

Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response

Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response

Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)

Secretariat Comment at CEO Endorsement Request
9/26/2022 PM:

N/A.

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is CEO endorsement recommended? (applies only to projects and child projects)

Secretariat Comment at CEO Endorsement Request
1/23/2023 PM:

Cleared.

1/17/2023 PM:

No. Please address comment above on the categories under the PPG utilization table. Kindly clarify what the category "Professional Services Nat." referred to. If these are consultancy services, you may want to include this under categories "international consultants" or "local consultants". For further information on what activities are PPG eligible please check tables 1 and 2 in pages 10 and 11 of the GEF Policy Guidelines

- https://www.thegef.org/sites/default/files/documents/GEF_Guidelines_Project_Program_Cycle_Policy_20200731.pdf

Also, grateful if you could please remove the green and blue highlights from the CEO Endorsement document to have a clean version to be shared with Council and later on published.

12/16/2022:

No. Please pending comments above.

9/26/2022 PM:

No. Please address comments above.

Review Dates

	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
First Review		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

CEO Recommendation

Brief reasoning for CEO Recommendations

