

Innovative approach to protect ouadis through the promotion of non connected mini-grid solar energy in 3 municipalities (Mao, Kekedena and Nokou) of Kanem region-Chad

Basic Information

GEF ID

10998

Countries

Chad

Project Title

Innovative approach to protect ouadis through the promotion of non connected mini-grid solar energy in 3 municipalities (Mao, Kekedena and Nokou) of Kanem region-Chad

GEF Agency(ies)

UNEP

Agency ID

UNEP: 119478

GEF Focal Area(s)

Multi Focal Area

Program Manager

Jean-Marc Sinnassamy

PIF

Part I – Project Informatic

Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

We understand that the selected "Executing Partner Type" is "government" as the main executing partner is from the government (ADEE). However, we take note that the National Agency for the Great Green Wall Initiative will also be an executive partner (it is also a "governmental" agency) and Baga-Sola, a NGO.

All the other points are addressed.

Cleared

April 27, 2022

Table A: OK

Rio markers: The project is cofinanced by CCM. The CCM Rio marker should be CCM2. Please, correct.

Sector: The project has been tagged as sector "Energy Efficiency – EE" at the beginning of the project. Please update the sector to "Renewable Energy - RE";

Executing partners: is the national Agency for the Energy and the Environment the only executing partner? We understand for the CCM part, but not for the SLM part. Please, clarify.

- Will the GGW Agency be associate as Executing partner? In this case, update the list of executing partners.

Agency Response

13 May 2022

The Rio Marker has now been changed to CCM2

The sector is now updated and changed to Renewable Energy in the portal.

The list of the executing partners has now been updated and Great Green Wall and NGO Baga-Sola (for SLM) are added. All under the coordination of the Ministry of Environment.

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

General comment. For ease of reference, in Table B, please add the component number at the beginning for components 1 and 2, i.e. “1. Promotion of gender sensitive best SLM practices to protect Ouadis ecosystems” and “2. Investment to support local communities (men and women) access to solar energy for irrigation and economic benefits”

Component 1

- Basically, the component 1 is about SLM and the component 2 is about CCM (RE). It is not correct to have a component 1 with less budget than the component 2. This project is financed by \$1.645 million from LD (\$56%) and \$1.309 million from CCM (44%): we would expect the same ratio between the components 1 and 2. Please, correct.

- Between the outputs 1.1.1 and 1.1.2, we take note of the need for a rigorous and scientific assessment of land degradation in the Ouadis systems. In this case, we would like to see a peer-reviewed article published as indicator. A technical report or gray literature will not be enough.

- Output 1.1.3: this is the formulation of an outcome, reflecting an expected situation. Please, reformulate it as an output, if possible

quantifiable, reflecting the expected result, giving the sense of the value for money. In the text, please develop the different modes of land restoration and SLM that will be promoted.

Component 2.

- Please note that Outputs 2.1.2 and 2.1.3 are not investment but technical assistance activities. To differentiate between technical assistance and investment activities, please create in Table B two rows for Component 2, one row for the outputs with technical assistance activities and another row with the outputs for the investment activities.

- Output 2.1.3. "Gender sensitive Power purchase agreements are negotiated and agree upon between the cooperatives and the ~~National Water Company~~ (SNE)". Please replace National Water Company by Societe Nationale d'Electricity (SNE).

- Hybrid or renewable energy mini-grids? The proposal mentioned "low carbon mini-grid". However, please confirm whether the mini grids will be "renewable energy mini-grids" or "hybrid mini-grids" (using a combination of renewable energy and diesel).

- Disposal of solar panels. The proposal shall include an explanation and risk mitigation measures for the safely disposal and/or recycling of solar panels. In this regard, we suggest to coordinate with the national child project in Chad of the Africa Mini-grid Project, which incorporates a provision for the safely disposal of solar panels. This way, potential overlaps between projects are avoided and efficient use of climate funding is encouraged. This point shall be linked to the sustainability section of the PIF, since by ensuring a correct disposal of solar panels we are contributing to the overall sustainability of the project.

Project Management Costs (pmc): The proportionality between the PMC covered by the GEF (i.e. 5%) and the PMC covered by the co financing has not been met.

- If the GEF contribution is kept at 5.0%, for a co-financing of \$21,000,000 the expected contribution to PMC must be around \$1,050,000 instead of \$500,000 (which is 2.38%). As the costs associated with the project management have to be covered by the GEF portion and the co-financing portion allocated to the PMC, the GEF contribution and the co-financing contribution must be proportional, which means that the GEF contribution to PMC might be decreased and the co-financing contribution to PMC might be increased to reach a similar level.

- Please, amend either by increasing the co-financing portion and/or by reducing the GEF portion. A more definitive estimation of PMC will be presented and adjusted at CEO Endorsement stage.

- If cofinancing in grant/cash is confirmed, the GEF should not bear all the burden of pmc and a contribution from cofinancing, to be determined, should indeed be visible in the budget. to be checked at CEO endorsement.

Agency Response

13 May 2022

Component 1

- Basically, the component 1 is about SLM and the component 2 is about CCM (RE). It is not correct to have a component 1 with less budget than the component 2. This project is financed by \$1.645 million from LD (\$56%) and \$1.309 million from CCM (44%): we would expect the same ratio between the components 1 and 2. Please, correct.

The ratio between component 1 and 2 is now corrected to reflect the ratios of Focal Areas resources committed.

- Between the outputs 1.1.1 and 1.1.2, we take note of the need for a rigorous and scientific assessment of land degradation in the Ouadis systems. In this case, we would like to see a peer-reviewed article published as indicator. A technical report or gray literature will not be enough.

The guidance is well noted, appreciated, and considered.

- Output 1.1.3: this is the formulation of an outcome, reflecting an expected situation. Please, reformulate it as an output, if possible quantifiable, reflecting the expected result, giving the sense of the value for money. In the text, please develop the different modes of land restoration and SLM that will be promoted.

The output is now reformulated as per the guidance. The modes of land restoration are also indicated and will be adapted during PPG to specific sites conditions.

Component 2.

- Please note that Outputs 2.1.2 and 2.1.3 are not investment but technical assistance activities. To differentiate between technical assistance and investment activities, please create in Table B two rows for Component 2, one row for the outputs with technical assistance activities and another row with the outputs for the investment activities.

The component 2 outputs have now been re-structured as per the guidance

- Output 2.1.3. "Gender sensitive Power purchase agreements are negotiated and agree upon between the cooperatives and the National Water Compagny (SNE)". Please replace National Water Company by Societe Nationale d'Electricity (SNE).

The change suggested is now affected throughout the document

- Hybrid or renewable energy mini-grids?. The proposal mentioned "low carbon mini-grid". However, please confirm whether the mini grids will be "renewable energy mini-grids" or "hybrid mini-grids" (using a combination of renewable energy and diesel).

It is confirmed that the "low carbon mini-grid" will be renewable energy mini-grid

- Disposal of solar panels. The proposal shall include an explanation and risk mitigation measures for the safely disposal and/or recycling of solar panels. In this regard, we suggest to coordinate with the national child project in Chad of the Africa Mini-grid Project, which incorporates a provision for the safely disposal of solar panels. This way, potential overlaps between projects are avoided and efficient use of climate funding is encouraged. This point shall be linked to the sustainability section of the PIF, since by ensuring a correct disposal of solar panels we are contributing to the overall sustainability of the project.

A risk is now added in the Risk table, and it relates to the Safety Disposal of solar panels.

The Sustainability section has also been amended to include the approach for the disposal or recycling of the solar panels as part of the project sustainability

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- In Investment Mobilized description section, provide a brief summary of each grant, including the funded activities/projects and the disbursement timeline.
- In the past, some projects faced challenges to mobilize cofinancing for GEF projects in Chad, especially in cash or grants. The proposed ratio of 1:7.2 is potentially promising. Some clarification is needed about the meaning of “investment mobilized” for each line of cofinancing. Please, clarify.
- Cash cofinancing from four governmental agencies is pretty unusual (national agency for Domestic Energy and Environment, National Society for Electricity, Special Fund for the Environment, and the national Agency of the Great Green Wall). One identified risk is “Insufficient budget stability”. Please, clarify.
- It seems probable that some of these resources will not be available as grants but as public investments. Be careful to be able to provide a justification for each cofinancing line, as there will be budget implications in the CEO endorsement. Please, confirm.
- Could you explain the level of interaction with EU projects at this stage? It may have been challenging in a recent past to obtain a letter of cofinancing. Please, clarify.
- IFAD and GCF are mentioned as cofinancing partners in the same line. Moreover, the contribution is in-kind. To be clarified.
- Could you provide any information about the level of discussions you may have had with these cofinancing partners?

Agency Response

13 May 2022

- In Investment Mobilized description section, provide a brief summary of each grant, including the funded activities/projects and the disbursement timeline.

Brief summary of each grant, including the funded activities and investment modalities are provided in the section 1.2 and some in section 1.6 of the PIF document. Some details are provided under table C- Indicative cofinancing. Updated information will be provided particularly on the disbursement timeline will be provided.

- In the past, some projects faced challenges to mobilize cofinancing for GEF projects in Chad, especially in cash or grants. The proposed ratio of 1:7.2 is potentially promising. Some clarification is needed about the meaning of “investment mobilized” for each line of cofinancing. Please, clarify.

Some details are provided under table C- Indicative cofinancing. Updated information will be provided particularly on the disbursement timeline at CEO endorsement following the follow up discussion with these partners.

- Cash cofinancing from four governmental agencies is pretty unusual (national agency for Domestic Energy and Environment, National Society for Electricity, Special Fund for the Environment, and the national Agency of the Great Green Wall). One identified risk is “Insufficient budget stability”. Please, clarify.

A risk related to the instability of budgetary allocation is now included. However, it is also good to note the said Government entities have autonomous management style.

- It seems probable that some of these resources will not be available as grants but as public investments. Be careful to be able to provide a justification for each cofinancing line, as there will be budget implications in the CEO endorsement. Please, confirm.

This is very well noted with thanks. During PPG phase these entities will be engaged as follow up to understand the updated investment plans of these entities and adequate synergies and complementarity with the project address to avoid duplication and inadequate resources planning.

- Could you explain the level of interaction with EU projects at this stage? It may have been challenging in a recent past to obtain a letter of cofinancing. Please, clarify.

The discussion was conducted between the National Domestic Energy and Environment Agency and the project and there is clear indication that the project is viewed as a government investment and that it will be ensure that all government entities will support the under development GEF projects. Cofinancing letters will be mobilized during PPG.

- IFAD and GCF are mentioned as cofinancing partners in the same line. Moreover, the contribution is in-kind. To be clarified.

The mistake has been corrected. The cofinancing is now tagged cash and a cofinancing letter will be mobilized in that direction during PPG.

- Could you provide any information about the level of discussions you may have had with these cofinancing partners?

The National Agency of the Domestic Energy and Environment has taken the leading as executing partner and together with the GEF OFP started discussions with these partners. Follow up discussion will be done during PPG and cofinancing letters will be mobilized.

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion Yes

Agency Response

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion Yes

Agency Response

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion Yes. LD and CCM

Agency Response

The LDCF under the principle of equitable access?

Secretariat Comment at PIF/Work Program Inclusion NA

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion NA

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion NA

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion NA

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2027

Table E: For a project grant up to \$3 million (\$2,954,534), a PPG up to \$100,000 is allowed. The few words of explanation are not convincing to allow an exception. Please, correct and insert a \$100,000 PPG.

Agency Response

13 May 2022

Table E: For a project grant up to \$3 million (\$2,954,534), a PPG up to \$100,000 is allowed. The few words of explanation are not convincing to allow an exception. Please, correct and insert a \$100,000 PPG.

Noted with thanks. PPG amount is updated to \$100,000.

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the corresponding Guidelines? (GEF/C.54/11/Rev.01)

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

Core Indicator - GHG emission reductions.

- Under section "Core Indicators" please include a description of the calculations conducted for the estimations of the GHG emission reductions, including a reference to the sources used.
- It is advisable to provide an excel sheet to easily track the calculations with an narrative explaining the assumptions (at least at CEO Endorsement stage).
- All the other targets should be confirmed at CEO endorsement, with explanations on the estimation modes.

Agency Response

13 May 2022

13 May 2022

Core Indicator - GHG emission reductions.

- Under section "Core Indicators" please include a description of the calculations conducted for the estimations of the GHG emission reductions, including a reference to the sources used.

The calculation of the GHG emission reduction was based on the standards of solar panel emission reduction based on figures provided by many research work including the US-based National Renewable Energy Laboratory (NREL) which estimated that solar power produces lifetime emissions of 40g CO2 equivalent per kilowatt-hour. As indicated in PIF document, this will be recalculated at PPG using the GEF developed methodology to determine the three types of GHG reductions (Direct contribution, Direct post-project contribution and Indirect contribution)

- It is advisable to provide an excel sheet to easily track the calculations with an narrative explaining the assumptions (at least at CEO Endorsement stage).

Well, noted with thanks. The Excel sheet tracking the calculation will be provided at CEO endorsement.

- All the other targets should be confirmed at CEO endorsement, with explanations on the estimation modes.

Well noted with thanks. The targets will be confirmed at CEO endorsement with an explanation on the estimation modes.

Project/Program taxonomy

7. Is the project/program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion Yes.

Agency Response

art II – Project Justification

1. Has the project/program described the global environmental/adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

See comment on the Theory of change below.

Agency Response

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- The proposal mentions a project for the establishment of a manufacturing photovoltaic system, which would benefit from the country's reserves of glass sand (the main material for the manufacture of solar panels). If possible, please elaborate further on the status and expected timeline for this manufacturing facility, since this could greatly impact the potential scaling up opportunities of the project.
- Energy consumption in Chad is dominated by thermal generation and overall use of fossil fuels. However, from the proposal it is unclear how many and what type of renewable energy projects are already in operation or expected to be built in the near future; Please, clarify, if possible.
- In March 2022 the World Bank approved the project "National electricity Emergency Plan Implementation 2021-2021", which includes renewable energy mini-grids among others. Please add this project to the list of associated baseline programs and ensure proper coordination between the two projects;
- You mentioned the AfDB/GEF Chad child project LCB-NREE Integrated management of natural resources in the Chadian part of the Lake Chad basin. However, we would like to see a more comprehensive approach of SLM and river basin approaches from the GEF and other partners. Please, consider to explore the lessons and synergies with the following: The GEFID9166 "Strengthening Agro-ecosystems' Adaptive Capacity to Climate Change in the Lake Chad Basin (Lac, Kanem, Bahr El Ghazal, and Part of the Hadjer-Lamis Region) with FAO, GEFID 9417 "Restoring Ecological Corridors in the Mayo-Kebbi Quest, Chad, to Support Multiple Land and Forests Benefits - RECONNECT" with IUCN, GEFID 9050 Building Resilience For Food Security and Nutrition in Chad's Rural Communities"" with AfDB. See also, the LDCF portfolio as the GEFID 8001 with UNDP.

Agency Response

13 May 2022

- The proposal mentions a project for the establishment of a manufacturing photovoltaic system, which would benefit from the country's reserves of glass sand (the main material for the manufacture of solar panels). If possible, please elaborate further on the status and expected timeline for this manufacturing facility, since this could greatly impact the potential scaling up opportunities of the project.

The company called Sahel Solaire is operating since 2019 and has started production of Solar Panels in the country and the region.

- Energy consumption in Chad is dominated by thermal generation and overall use of fossil fuels. However, from the proposal it is unclear how many and what type of renewable energy projects are already in operation or expected to be built in the near future; Please, clarify, if possible.

Noted and addressed in section 1.1, particularly in Energy Context

- In March 2022 the World Bank approved the project "National electricity Emergency Plan Implementation 2021-2021", which includes renewable energy mini-grids among others. Please add this project to the list of associated baseline programs and ensure proper coordination between the two projects;

Noted with thanks. The project is now added in the baseline and the coordination section include the coordination with the project

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- We cannot see/find the main assumptions needed to follow the proposed pathways. To be completed.

- The Theory of Change seems a bit simplistic. We understand that only one barrier was identified for the development of mini-grids in Chad: "Lack of support for the initial investment to access solar panels for irrigation water pumps to address land degradation in Ouadis". Please, confirm.

- The barriers section (and therefore the ToC) could be further strengthened by being more specific on the underlying barriers, as there are very probably more than one to consider. If it can help, please find below a list of general risks and barriers to develop renewable energy

mini-grids. Please, update.

Proposed alternative scenario:

Overall, Component 2 shall be further elaborated providing a more in-depth description of each of the outputs, including a list of deliverables.

- Mini-grid business model & PPA (Power Purchase Agreement). Component 2 does not provide enough information on the business model used for the implementation of the three water pump infrastructures (including solar panels and batteries). We understand some of the features of the business model would be defined during the selection of the communities (please clarify whether community selection will take place at PPG or implementation stage) 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 and the cooperatives 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?

- Are the cooperatives already established? If not, what criteria would be used for the creation of the cooperatives? For instance, the proposal mentioned the use of any surplus of energy for other potential uses of energy. Potential uses of energy is key for the expansion of mini-grids. As such, identification of potential uses of energy in the selected communities is key.

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

Risk Category	Underlying Barriers	Description
Energy Market Risk	Market outlook	Lack of political will and/or uncertainty regarding national/state targets for electrification and renewable energy minigrid investment, including lack of electrification plans, rural electrification agencies/institutions, and good data (geospatial) on energy demand and lowest cost technology options.
	Market access, competition and grid expansion	Lack, or limitations (suboptimal design, lack of capacity), in current government policy framework for minigrids including off-grid services areas; well-defined concessions (size, years, targets, bundling); compensation schemes in case of grid expansion.
	Tariffs	Uncertainty or inflexibility in electricity tariff regulations for minigrid developers
	Technical standards	Lack of clarity, uncertainty and/or inconsistent government technical requirements for minigrids regarding (i) quality of service and (ii) grid integration, should it occur.
	Competing subsidies	Competition from subsidized diesel and kerosene (mostly used for lighting); negative perceptions of minigrid tariffs due to subsidized grid-distributed electricity.
Social acceptance risk	Unfamiliarity with minigrids	Risk arises from lack of awareness and resistance to renewable energy and minigrids in communities, also from resistance from incumbent businesses.
	Availability and quality	Lack of availability of quality hardware and national quality standards for

Hardware risk	of hardware	components of minigrids, and/or the lack of institutionalization of a minigrid quality assurance framework. In several countries, hardware costs are also higher than expected because of the lack of a supply chain for spare parts.
	End-of-life waste management	Risks arising from lack of policies and planning regarding disposal of hardware, including batteries, at end-of-life of mini-grids
	Customs	Cumbersome customs/clearing process for importing hardware, leading to delays in delivery; punitively high customs tariffs on minigrid hardware.
Digital risk	Networks and software availability	Lack of cellular coverage in rural area for minigrid remote monitoring and payments
Labor risk	Inadequate capacity	Lack of a competitive labor market of educated, skilled and qualified potential employees to design, construct, operate and maintain minigrids, leading to higher costs, hiring non-local staff and suboptimal performance.
Developer risk	Project development and management capacity	Minigrid business developers may not have the necessary expertise and capabilities to formulate financially viable projects and operate minigrids. Also, there is no 'one-size-fits-all' solution yet, implying that business models need to be contextualized.
	Developers' creditworthiness	Inability of developer to secure low-cost financing from investors due to lack of credit worthiness, or insufficient cash flows to meet investors' return requirements.
End-user credit risk	Lack of customer creditworthiness	Lack of end-user credit data; customers' willingness and ability to pay and methods of payment for electricity.
Financing risk	Capital scarcity	Limited availability of long-term domestic loans, well-capitalized actors and policy incentives.
	Limited experience with minigrids	Investors' lack of familiarity with minigrid projects and appropriate financing structures.
Currency risk	Local currency volatility	Currency mismatch between domestic currency revenues and hard currency financing.
Sovereign risk	Various uncertainties not specific to minigrids	Limitations and uncertainty related to conflict, political instability, economic performance, weather events/natural disaster, legal governance, ease of doing business, crime and law enforcement, land tenure and infrastructure in country.

Source: UNDP, Derisking Renewable Energy Investment: Off-Grid Electrification (2018)

Agency Response

13 May 2022

- We cannot see/find the main assumptions needed to follow the proposed pathways. To be completed.

Not sure if the review request is to strengthen the assumption to add on the existing ones. In the ToC diagram the assumptions are included and are related to: i) enabling capacity environment to allow the uptake of the good SLM practices and ii) recognition of solar energy as a mean of facilitating energy access at rural level. The assumptions will be reassessed and compressive ones will be provided in the CEO

endorsement.

- The Theory of Change seems a bit simplistic. We understand that only one barrier was identified for the development of mini-grids in Chad: "Lack of support for the initial investment to access solar panels for irrigation water pumps to address land degradation in Ouadis". Please, confirm.

We concur with the review that there is more than one barrier related to promotion of best SLM practices and the use of Solar Energy to facilitate irrigation. However, due to the limited resources available to this project we decided to focus on one major one. During the PPG more assessment will be conducted and stakeholders will be engaged in prioritization of which ones to address but also clearly reflect all in the Report of the Assessment and the peer-review article envisaged in component 1. This will allow the country to have comprehensive overview of what needs to be overcome in order to include it in national environment action plan and resources mobilization strategy. The barrier section has been amended to consider this move.

- The barriers section (and therefore the ToC) could be further strengthened by being more specific on the underlying barriers, as there are very probably more than one to consider. If it can help, please find below a list of general risks and barriers to develop renewable energy mini-grids. Please, update.

Very well noted with appreciation. The above response applies. However, we value the information and materials provided above. These will be fully exploited during the PPG to strengthen the Risks section and the Theory of Change diagram will be improved.

Proposed alternative scenario:

Overall, Component 2 shall be further elaborated providing a more in-depth description of each of the outputs, including a list of deliverables.

The summary component description is provided at this stage and this will be detailed based on the outcomes of the data collected and active consultations with local stakeholders and partners. Following that the Key deliverables and Benchmark which is part of CEO endorsement package as Annex will be provided.

- Mini-grid business model & PPA (Power Purchase Agreement). Component 2 does not provide enough information on the business model used for the implementation of the three water pump infrastructures (including solar panels and batteries). We understand some of the features of the business model would be defined during the selection of the communities (please clarify whether community selection will take place at PPG or implementation stage) 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.

The proposed approach was based on the exchange and discussions with the National Agency of Domestic Energy and Environment; past experience of some partners in the project areas (e.g. World Food Program); some stakeholders from energy sectors and review of available literature on the topic. As explain above an in-depth analysis of options will be carried out and thorough stakeholders' consultation particularly with local communities will be conducted to agree during PPG on workable models

particularly with local communities will be conducted to agree during PPG on workable models.

This is reflected in the amended component 2 description.

All of the above comments have been very useful and will be considered during PPG. However, preliminary responses are provided in form of the amended text of component 2 description.

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

Yes

Agency Response

5. Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

Yes

Agency Response

6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

To be confirmed at CEO endorsement.

April 27, 2022

Core Indicator 6: please, provide the methodology behind the proposed target?

Agency Response

13 May 2022

Response provided in previous cells where the issue has also been raised.

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- In the part on "Innovation, sustainability and potential for scaling up", please, include a comment on how and why the proposed business model contributes to the project potential for scaling up.

- Coordinate with the Chad national child project under the Africa Mini-grid program, because 1) it includes an analysis of the best suitable business models for Chad, 2) it includes a disposal mechanism of solar panels .

Agency Response

13 May 2022

- In the part on “Innovation, sustainability and potential for scaling up”, please, include a comment on how and why the proposed business model contributes to the project potential for scaling up.

The scaling up subsection is amended to include why and how the proposed business model is viable

- Coordinate with the Chad national child project under the Africa Mini-grid program, because 1) it includes an analysis of the best suitable business models for Chad, 2) it includes a disposal mechanism of solar panels .

They have been already two rounds of discussion with UNDP and Chad AMP and commitments are made from both sides (UNDP and UNEP) to work together and to ensure synergies and complementarity

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project’s/program’s intended location?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

The geographical coordinates will be confirmed at CEO endorsement.

April 27, 2022

A map is available (annex A). Please, provide the geographical coordinates.

Agency Response

Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed, but please, confirm at CEO endorsement 1) the Stakeholder engagement plan and 2) the different accessible forms of technical assistance for farmers (extension services, agronomy research center, Chamber of Agriculture, NGO, FFOF etc.).

April 27, 2022

- Please, provide information about the number of meetings and consultations that took place, their date, the number of participants, and the main outcomes.

- The document is silent on farmer organizations and different forms of support (extension services, agronomy research center, NGO...). Please, clarify.

Agency Response

13 May 2022

- Please, provide information about the number of meetings and consultations that took place, their date, the number of participants, and the main outcomes.

Number of consultations through phone calls and face to face meetings in Ndjamen, were conducted between the IA that is UNEP and Chad Operational Focal Point, the National Agency for Domestic Energy and Environment; two local NGOs and UNDP. These consultations will continue during the PPG and the section related to the PPG activities will report on the key consultations with stakeholders. Minutes of these meetings will be documented.

- The document is silent on farmer organizations and different forms of support (extension services, agronomy research center, NGO...). Please, clarify.

The discussion with Local NGO anticipated to be part of the project execution partners (see stakeholders table in the PIF) provided information on the local communities and cooperatives. The PPG will have a comprehensive stakeholders engagement plan where all type of stakeholders will be engaged and their role will be define in participative manner.

Gender Equality and Women's Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

April 27, 2022

Addressed.

Agency Response

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- There is a generic text about the private sector, but we do not know the potential role of the private sector in the SLM component. Please, clarify.
- What is the role of the private sector in the CCM aspects? Just supplier of the solar panels? Please, clarify.

Agency Response

13 May 2022

- There is a generic text about the private sector, but we do not know the potential role of the private sector in the SLM component. Please, clarify.

Preliminary analysis reveals that private sector in SLM in Chad is very weak. This has been confirmed by the baseline assessment conducted in the Great Green Wall area in preparation of future intervention. However, there is limited knowledge of the private sector within the ministry. For example, the Gum Arabic operators, the Spirulina operators exist and is often not considered as private sector, the PPG phase will conduct a comprehensive analysis of private sector in SLM and a good engagement plan will be developed.

- What is the role of the private sector in the CCM aspects? Just supplier of the solar panels? Please, clarify.

As indicated in the PIF document, the private sector will not only produce or supply solar panels, but it is anticipated that the excess energy generated will be sold to the National Electricity Company.

Risks to Achieving Project Objectives

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed. To be confirmed at CEO endorsement (risks analysis, assessment of the future executing partners....

April 27, 2022

- There is no mention of political risks. Don't you think that internal political issues or fragility of communities on the ground should be

included in the risk analysis?

- Have you made a financing and administrative assessment of the potential national agency? Is it planned at PPG? How was selected the designed National Agency?

- COVID-19 risks are included. However, a paragraph on potential opportunities related the COVID-19 situation is missing. Please, complete.

- See the item II, 3) and the suggestion about the risks related to the development of minigrids in Chad. Please, update.

Agency Response

13 May 2022

- There is no mention of political risks. Don't you think that internal political issues or fragility of communities on the ground should be included in the risk analysis?

Political and Fragility included in Risk Table

- Have you made a financing and administrative assessment of the potential national agency? Is it planned at PPG? How was selected the designed National Agency?

The national executing agency is an arm of the Ministry and it is receiving and managing funds from various donors, however, during PPG the assessment will be done to appreciate the capacity and the capacity building need of executing partners. The needed capacity-building activities will be included in the project budget.

- COVID-19 risks are included. However, a paragraph on potential opportunities related the COVID-19 situation is missing. Please, complete.

During the PPG the potential opportunities provided by COVID-19 Situation will be assessed and project-related activities in support of building country resilience will be designed in the project framework.

- See item II, 3) and the suggestion about the risks related to the development of mini-grids in Chad. Please, update.

Addressed in item II above

Coordination

**Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined?
Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?**

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

- As mentioned above (table B). we suggest coordinating with the national child project in Chad of the Africa Mini-grid Project for several reasons. For instance, this project incorporates a provision for the safety disposal of solar panels. This way, potential overlaps between projects could be avoided and efficient use of climate funding will be encouraged.

- Best practices and lessons from the SLM, MFA, IW, and LDCF portfolio would help, as well as potential connections/arrangements with project that are still active.

Agency Response

15 May 2022

- As mentioned above (table B). we suggest coordinating with the national child project in Chad of the Africa Mini-grid Project for several reasons. For instance, this project incorporates a provision for the safety disposal of solar panels. This way, potential overlaps between projects could be avoided and efficient use of climate funding will be encouraged.

Addressed in items above.

- Best practices and lessons from the SLM, MFA, IW, and LDCF portfolio would help, as well as potential connections/arrangements with project that are still active

Well noted with thanks. A comprehensive analysis of lessons learnt from the above-mentioned portfolio will be conducted and findings relevant to this project will be considered.

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

Addressed.

Agency Response

Knowledge Management

Is the proposed "knowledge management (KM) approach" in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project's/program's overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

Addressed. To be developed at CEO endorsement.

Agency Response

Environmental and Social Safeguard (ESS)

Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

Addressed.

April 27, 2022

We note that the project overall ESS risk is classified as moderate, and UNEP attached Safeguard Risk Identification Form (SRIF). In the ESS section of the Portal, it is, however, not clear what is the next step for the Agency to address ESS risks including security risk at the project site in Chad. The safeguard recommendations by the safeguard team in the SRIF states that “Carry out further assessment” and “carry out impact assessments in the risk areas and develop management framework/ plan”.

- Please include summary of ESS risks identified in the screening process and further action that Agency will take during PPG or initial stage of the project implementation in the ESS section of the Portal.

Agency Response

13 May 2022

Well noted this is addressed in the portal. The following comment from the ESS team will be included in the portal:

This is likely a moderate-risk project. Some potential risks are identified. They should be further assessed during the project development phase through consultation with local and indigenous people, site visits, and experts monitoring of the project. Having a person to respond to the community concerns and grievance matters via prompt and close communication will also be critical. Furthermore, the risk related to security, and community fragility will be part of the PPG assessment activities and the Risk table will be updated to include the mitigation measures identified.

art III – Country Endorsements

Has the project/program been endorsed by the country’s GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

Yes

Agency Response

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

NA

Agency Response

EFSEC DECISION

RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

May 17, 2022

The PIF is recommended for clearance and inclusion in the Work Program.

April 27, 2022

Not yet. Please, address the comments above.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

- Confirm the targeted sites.
- Confirm cofinancing.
- Check the role of cofinancing in pmc and the budget.
- Confirm the targets.
- Confirm the implementation arrangements.
- Provide a comprehensive risk analysis.
- Confirm the stakeholders engagement plan, including the analysis of potential partners in terms of extension services.
- Confirm the business model for the mini-grid business.

- Confirm the KM approach.

Review Dates

	PIF Review	Agency Response
First Review	4/27/2022	5/13/2022
Additional Review (as necessary)	5/17/2022	
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval