

## STAP guidelines for screening GEF projects

Part I: Project Information	Response
<b>GEF ID</b>	10998
<b>Project Title</b>	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.
<b>Date of Screening</b>	25 May 2022
<b>STAP member screener</b>	John Donaldson, Saleem Ali
<b>STAP secretariat screener</b>	Alessandro Moscuzza
<b>STAP Overall Assessment and Rating</b>	<p><b>Minor issues to be considered during project design.</b>  This is a solid project proposal, which proposes an interesting and highly-innovative set of activities including implementing cutting-edge technology and applications to develop novel solutions. Through the use of solar mini-grids and sustainable land management (SLM) in sensitive ouadi ecosystems, this project aims to reduce carbon emissions while also providing ecological restoration benefits. The proponents have made a convincing case for the GEBs offered through low carbon electricity delivery in some of the remotest and least serviced parts of Africa.</p> <p>Our review identified a few areas that would benefit from minor and in some cases moderate revisions, mostly around language, phrasing and in a couple of cases (e.g. outline of components, list of stakeholders) also content. We have included a few recommendations with our comments for consideration by the design team and would be happy to engage in further discussions as needed.</p> <p>Overall, this project is well constructed. The proponents may consider the following key reading in making sure that lessons from past research in this arena can be better harnessed: Hassane, A.I., Didane, D.H., Tahir, A.M., Mouangue, R.M., Tamba, J.G., Hauglustaine, J.-M., 2022. Comparative Analysis of Hybrid Renewable Energy Systems for Off-Grid Applications in Chad. International</p>

	Journal of Renewable Energy Development 11, 49–62. ( <a href="https://doi.org/10.14710/ijred.2022.39012">https://doi.org/10.14710/ijred.2022.39012</a> )	
<b>Part I: Project Information</b> <b>B. Indicative Project Description Summary</b>	<b>What STAP looks for</b>	<b>Response</b>
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes, the description of the objective is acceptable, although it could be rephrased to be clearer and easier to read. However, when compared with the description of the problem diagnosis, which is much clearer and better articulated it was more evident how the two are related. For clarity, it would be helpful for the proponent to find a consistent way to refer to solar energy throughout the document. In some cases, it refers to mini-grids but in others to solar pumps (for abstracting water) even where more extensive benefits of solar power are mentioned such as reduced use of biomass.
Project components	A brief description of the planned activities. Do these support the project’s objectives?	As a whole, the activities listed as part of the project components support the project objectives. However, we found the wording for component 1 to be slightly out of synch with the other components and the project objectives. <b>STAP recommends</b> that the phrasing for component 1 be revised to ensure that it is: i) more focused on achieving a specific objective (i.e. the protection and/or restoration of ouadis ecosystems); ii) more consistent with the project objectives and the other components as well.
Outcomes	A description of the expected short-term and medium-term effects of an intervention.  Do the planned outcomes encompass important adaptation benefits?	In line with what we observed in relation to the project components, we thought that the description for outcome 1.1. could be improved to be more aligned with the project objectives. We also found that there was too much emphasis placed on gender issues across all outcomes, in some cases even at the expenses of setting clearer objectives, targets or outputs. Whilst we completely agree that gender issues are very important and crucial to the success of any program, it is also important that balance and proportionality are maintained throughout any proposal. <b>STAP recommends</b> that the outcomes be revised to ensure they are more balanced throughout and that enough emphasis is given to the full range of issues to be covered by this project, including of course gender issues.

	Are the global environmental benefits/adaptation benefits likely to be generated?	The environmental benefits described in the proposal are likely to be realized if the project activities will be implemented as indicated therein.
Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	In most cases the description of the outputs was well matched with the outcomes. It is not clear just how critical the study of qadi dynamics (mentioned under output 1.1) is to the remainder of the project. There does seem to be other research on the ecohydrology of qadi ecosystems, so it is presumed that this study is to adapt SLM practices developed elsewhere to this particular area. As already observed in relation to the outcomes, we found that some of the outputs lacked in focus and could be improved to ensure they reflect the full breadth of activities that the project is planning to implement. The emphasis on gender issues should also be proportional to avoid giving a perception of tokenism. It is also difficult to differentiate between the outputs of component 1 and component 3. For example, output 1.1. focuses on knowledge products and includes research projects on the dynamics of qadi ecosystems. At the same time outputs 3.1.2 and 3.1.3 refer to development of knowledge products and monitoring systems. It may be that the intention under Component 1 is to identify appropriate SLM practices and fine tune them through localized research, whereas Component 3 may intend to disseminate knowledge and include M&E for the implementation of the project. <b>STAP recommends</b> that these aspects of the project description be reviewed as the project develops to make this distinction clearer
<b>Part II: Project justification</b>	A simple narrative explaining the project's logic, i.e. a theory of change.	
<b>1. Project description.</b> <b>Briefly describe:</b> 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	Is the problem statement well-defined?	Yes, the problem statement is clearly written and also very well defined. A range of issues were identified in the proposal and were clearly organized by category; they were also coherently linked as part of the overarching narrative.
	Are the barriers and threats well described, and substantiated by data and references?	The project proposal comprises a total of three barriers. Two of these (i.e. barrier 2 and 3) are well-described and consistent with the rest of the proposal. On the other hand, the description for

		barrier 1 is less clear. It seems to cover some of the same issues as barrier 3 (use of appropriate SLM technologies) and reads more like a potential risk and does not match the narrative flow. <b>STAP recommends</b> that this be revised to ensure the language is consistent with the narrative used for the rest of the section.
	For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	Yes, the drivers of environmental degradation are clearly identified, and they match multiple focal areas.
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Yes, the proposal identifies a total of fourteen ongoing initiatives, which were implemented and supported by a range of actors including the government of Chad, and multilateral donors such as WB and AfDB and the UN.
	Does it provide a feasible basis for quantifying the project's benefits?	Yes, the activities identified and described in the baseline provide a solid basis for quantifying the additional benefits that will accrued from implementing this project.
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes, the baseline provides enough information about the existing needs and gaps to justify the additional investment to be made through this project. The current lack of investments in the region means that the status quo as summarized above will continue leading to: a) continued degradation, b) fragmentation and loss of ouadis ecosystems; the exacerbation social conflict and land disputes; c) reduced agricultural productivity. The additional GEF support will help rehabilitate and restore the landscape, increase socio-economic wellbeing, and limit the rate of carbon emissions from land use change.
	For multiple focal area projects:	
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	Yes, as already outlined the baseline includes initiatives that cover multiple focal areas (i.e. biodiversity, climate change and land degradation).

	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	-
	how did these lessons inform the design of this project?	-
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	The theory of change also lays forth barriers to implementation and how they could be overcome and overall, the project has considerable potential for replicability in other parts of Saharan Africa and other arid areas of the world. The TOC in essence argues that: if initial funding for solar minigrids is provided, this will facilitate a move away from dependence on diesel generators and biomass; if communities are exposed to appropriate Sustainable Land Management technologies they will change their practices, reduce levels of degradation and restore degraded areas; and if appropriate knowledge systems are in place. Communities
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	In general, the sequence of events will lead to desired outcomes. In some places there seems to be a conflation of specific activities with intended outcomes, e.g. that the installation of solar pumps will benefit restoration. If the water will be used for restoration, this link should be made more clearly.
	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	-
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	Yes, the ToC was quite comprehensive and well-constructed, it provided a good theoretical foundation for the project and included all elements that would be expected including a set of assumptions, barriers, challenges and drivers of change. Overall the ToC was one of the best we reviewed in this round of projects and a good example for other projects to follow.
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	We found no direct references to this specific aspect, but it can be inferred reading the theory of change narrative. We are therefore satisfied that this requirement was adequately covered.
5) incremental/additional cost reasoning and expected contributions from the	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Yes, our assessment is that the successful implementation of project activities will lead to the

baseline, the GEF trust fund, LDCF, SCCF, and co-financing		realization of the environmental benefits listed in the proposal.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	-
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	The environmental benefits listed in the proposal are for the most part measurable and include some that meet the criteria for GEBs. Out of these, the avoidance of a significant amount of CO <sub>2</sub> emission is the most prominent. An additional benefit of ouadi restoration is that hydrological features that are so important for wildlife and human populations could also be better conserved.
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes, the overall scale of projected benefits justifies the proposed investment which is not very large
	Are the global environmental benefits/adaptation benefits explicitly defined?	Yes, the proposed environmental benefits are explicitly defined and quantified where relevant.
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	Yes, a set of indicators were provided to measure the results from the implementation of project activities.
	What activities will be implemented to increase the project's resilience to climate change?	-
7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	Yes, the very nature of the activities proposed, which is centered around combining the combating land degradation by making use of Solar energy for pumping water for irrigation and use of the access in mini-grid system to support energy access is still quite innovative and has only been implemented by a few international development agencies across the Global South. Therefore, this project is still relatively at the cutting edge of current practice.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	Yes, the proposal presents a clear vision of how to scale up activities, which is centered around the creation of a critical mass of market activities that will support broader replication of the systems for basic rural electrification in the country. Whether this aspiration can actually be realized, especially in view of the challenges currently affecting the energy

		sector in region, is another issue and entirely to be seen.
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	Although the project builds on other initiatives and will therefore require some incremental adaptation of existing practices, it does also require more fundamental change. The adoption of good SLM practices will require local people to transform their current practices and it will require learning new technologies, e.g. the maintenance of solar power plants instead of diesel generators.
<b>1b.</b> Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		-
<b>2. Stakeholders.</b> Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local communities; Civil society organizations; Private sector entities. If none of the above, please explain why. In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	The proposed list of stakeholders includes partners from government agencies and civil society but seems to be missing actors from the private sector and academia, which could add significant value to the project. <b>STAP recommends</b> that the list of prospective stakeholders is revised to ensure that all relevant sectors are adequately represented and that the project is supported by a broad range of actors covering all aspects of society in Chad.
	What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	-

<p><b>3. Gender Equality and Women’s Empowerment.</b> Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/tbd. If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-making; and/or economic benefits or services. Will the project’s results framework or logical framework include gender-sensitive indicators? yes/no/tbd</p>	<p>Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?</p>	<p>Yes, the proposal includes a section on gender issues and this aspect has been referred to throughout the proposal and features prominently in all of the project components and most of the outcomes and outputs. The gender section of the proposal focused almost exclusively on land tenure issues and glazed over some of the more pervasive societal realities and risks that affect women in Chadian society (e.g. Chad has the world’s third highest maternal mortality rate, as well as 25% literacy rate among women and girls), which in a way limited the scope of the description. However, the proposal also states that the project will conduct a gender analysis in the next stage of development, which among other things will identify and address differentiated roles, capacity gaps and opportunities that affect land management across gender categories. <b>STAP recommends</b> that the ToRs for the gender analysis be reviewed to ensure that they cover all aspects of gender related issues in Chadian society, how these may affect project activities and how the project activities may be used to improve the condition of women and girls across all areas identified as needing improvement.</p>
	<p>Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?</p>	<p>Traditional values that are still predominant in Chadian society, which is articulated around approximately 25 traditional ethnic groups and is predominantly (Muslim 52.1%, Protestant 23.9% and Roman Catholic 20%). Societal norms will certainly pose challenges in this area, but the project is taking a robust approach to tackle any barriers and is directly aiming to improve women's access to Ouadis by negotiating with the traditional chiefs to release plots on new areas to be developed by women, so they can invest in and benefit from the yield of their own land. The project will also support</p>

		women's participation in various Renewable Energy capacity building trainings.
<b>5. Risks.</b> Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design	<p>Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project?</p> <p>For climate risk, and climate resilience measures:</p> <ul style="list-style-type: none"> <li>• How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately?</li> <li>• Has the sensitivity to climate change, and its impacts, been assessed?</li> <li>• Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with?</li> <li>• What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?</li> </ul>	The proposal includes a risk section, which is reasonably comprehensive but could be expanded to include additional risk categories such as: <i>operational risk, security and conflict, epidemic or pandemic outbreaks</i> <b>not limited to COVID 19</b> (the WHO is currently investigating an unusual outbreak of monkeypox, which is endemic of the region of Africa where Chad is located) and political support. Some of the descriptions for the proposed mitigation measures (i.e. technical risk, internal political risk and fragility) could also be improved and expanded to be more thorough and comprehensive. The proposal includes a very thorough and comprehensive section on climate change risks, which would be strengthened by including some analysis of possible impacts on groundwater recharge. Some studies suggest that groundwater recharge is diminished by poor rainfall and this may be important for the sustainability of solar water pumps..
<b>6. Coordination.</b> Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Yes, the project will draw upon five other projects implemented by the GEF, WB and AfDB. These include GEF child projects covering very similar areas of operations.
	Is there adequate recognition of previous projects and the learning derived from them?	Yes, this aspect is adequately covered in the relevant section of the proposal.
	Have specific lessons learned from previous projects been cited?	Yes, judging from the description provided in the proposal it would appear that they have.
	How have these lessons informed the project's formulation?	We could see no direct references to this in the proposal, but from reading the information provided it would be reasonable to assume that there has been at least some level of influencing from learning made in previous projects.
	Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	Yes, some of the projects that were referred to in the baseline comments above will be used to disseminate good practice and feed lessons learned.

		Among these the UNDP/GEF Africa Mini Grid project was identified as a likely candidate.
<b>8. Knowledge management.</b> Outline the “Knowledge Management Approach” for the project, and how it will contribute to the project’s overall impact, including plans to learn from relevant projects, initiatives and evaluations.	What overall approach will be taken, and what knowledge management indicators and metrics will be used?	According to what was stated in the proposal, the knowledge management approach for this project will involve the development of synergies and networking with similar projects in the region, as well as sharing any lessons generated by this project with associated ones. UNEP who is the IA for this project will play a key role as a broker with similar initiatives in the region. The abovementioned UNDP-GEF Africa Mini-Grid Project will be one of them. The type of restoration and improved land management being proposed seems to offer an opportunity to integrate indigenous and local knowledge with good practice in SLM from elsewhere and it would be important to capture both elements in the knowledge management system.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	This will be arguably achieved through the deployment of KM instruments, as well as exchanges and field visits, online learning events, and learning and training workshops, which will be used to support the replication of mini-grid projects across the region.

Notes

STAP advisory response	Brief explanation of advisory response and action proposed
<p><b>1. Concur</b></p>	<p>STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.</p>
	<p>* In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP will recognize this in the screen by stating that <b><i>“STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design.”</i></b></p>
<p><b>2. Minor issues to be considered during project design</b></p>	<p>STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:</p>
	<p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;</p>
	<p>(ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.</p>
	<p>The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.</p>

<p><b>3. Major issues to be considered during project design</b></p>	<p>STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:</p>
	<p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.</p>