

## STAP guidelines for screening GEF projects

Part I: Project Information	Response
<b>GEF ID</b>	10680
<b>Project Title</b>	Promotion of climate adaptation technology and business model innovations and entrepreneurship in Sierra Leone
<b>Date of Screening</b>	November 25, 2020
<b>STAP member screener</b>	Edward Carr
<b>STAP secretariat screener</b>	Guadalupe Duron
<b>STAP Overall Assessment and Rating</b>	<p>Minor issues to be considered during project design.</p> <p>STAP acknowledges UNIDO’s project “Promotion of climate adaptation technology and business model innovations and entrepreneurship in Sierra Leone”. The project aims to reduce climate vulnerability, and increase resilience of vulnerable populations by supporting Micro, Small, and Medium Enterprises (MSMEs) in the water, agriculture and energy sectors in Sierra Leone.</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. As currently written, the project is largely focused on supporting micro-small, medium enterprises (MSMEs), and not enough information is provided on how the MSMEs will develop opportunities for people to adapt to climate change. STAP offers a number of suggestions on how the causality between MSMEs and climate adaptation could be established, monitored and evaluated by developing a more rigorous causal pathway between the intended objective, outcomes, outputs, and activities.</p> <p>STAP further proposes that the project more clearly specify the role of climate change in the challenges it proposes to address. The project attributes a number of complex challenges to climate change impacts without identifying or considering their other causes. For example, the landslides and flooding referenced in the PIF are heavily influenced by land use decisions that are not</p>

	<p>clearly tied to climate change, making it impossible to assess the extent to which adaptation actions might alleviate these challenges, or whether adaptation actions are in fact appropriate means of addressing them. Similarly, the spread of vector-borne diseases is shaped by much more than climate, but these other factors are not considered in the PIF. Finally, at times the PIF seems to overstate the importance of climate change in this context, for example by suggesting that a projected 0.02% increase in annual rainfall would have a meaningful impact on soil nutrient leaching.</p> <p>Below, STAP offers recommendations on how to improve project design.</p>	
<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?	The objective is clearly identified, but the relationship of the objective to the activities is problematic because the contribution of climate change to challenges like flooding and landslides relative to other drivers, such as land use, is not well-articulated. Other stressors, such as access to water, are also not well-supported by data. Finally, the project's implicit theory of change does not clearly map how the innovations to be fostered through MSMEs might address these concrete challenges.
Project components	A brief description of the planned activities. Do these support the project's objectives?	<ol style="list-style-type: none"> <li>1) The project will strengthen institutional and policy frameworks around adaptation MSMEs to stimulate new technologies, products, and services and deploy them.</li> <li>2) It will support the growth and scale-up of adaptation MSMEs.</li> <li>3) It will facilitate access of vulnerable groups to financing for the acquisition of resilience and adaptation products and services.</li> </ol>
Outcomes	A description of the expected short-term and medium-term effects of an intervention.	The outcomes encompass important environmental benefits and adaptation benefits for Sierra Leone. It

	Do the planned outcomes encompass important global environmental benefits/adaptation benefits?	is not clear how these would amount to global environmental benefits.
	Are the global environmental benefits/adaptation benefits likely to be generated?	It is difficult to assess the likelihood of achieving adaptation benefits as described in this PIF. .
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?	The outputs appear to contribute to the outcomes. However, outputs related to outcome 3.1 are mostly focused on improving financial service providers understanding of adaptation and resilience, with relatively little focus on the vulnerable groups who are the focus of this section.
<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?	<p>The PIF describes possible changes in the climate for the timeframe 2040-2059. However, it only describes a single climate future (using RCP 8.5, the most extreme of the RCPs), when some consideration should be made for different outcomes related to different emissions pathways. The PIF references flooding and landslides as effects of climate change, but does not make this attribution clearly. Flooding and landslides are often the products of land use decisions, not climate change – a point that becomes clear later in the PIF. Even using the extreme scenario, the PIF is pointing to changes twenty years from now, but attributing current flooding and landslides to climate change. To the extent the project considers flooding and landslides to be significant climate impacts to be addressed by the project, it will need to clearly attribute these events to a changing climate (or, more likely, establish a partial attribution bound up in changing land use, etc.), and thus allow for the assessment of the likely change in frequency and severity of floods and landslides.</p> <p>There are no references for the projections of sea-level rise, and no concrete amounts of sea-level rise listed. It is therefore difficult to assess the degree to</p>

		<p>which this will produce the threats described in the PIF.</p> <p>The PIF blames deforestation on poverty without references or evidence (a critical point, because the relationship between poverty and deforestation is complex – in some situations, impoverished people are better land managers than wealthy people because the land is their only asset).</p>
	<p>Are the barriers and threats well described, and substantiated by data and references?</p>	<p>The climate risks to food security are presented without reference to any evidence. The argument that increased temperature will lead to increased proliferation of vector-borne diseases for livestock and crops seems generalized and should be specified for Sierra Leone – what diseases are likely to be exacerbated? The claim that increased rainfall will cause nutrient leaching and fungal growth makes a very big deal out of a 4.85mm increase in annual precipitation (at the worst) in a country that receives between 2000 and 3000mm/year. This is an increase of 0.02% at the most, which would be an imperceptible change and unlikely to produce these impacts. The PIF does mention extreme rainfall events and the project would do well to focus on the probability of these events, which seem a more likely source of flooding, landslides, and crop damage than annualized changes.</p> <p>The risks for water security are very weakly tied to climate change. Here, the PIF mentions periods of drought (which are not characterized in the overview of climate) which might be addressed by wells with solar pumps. The risks for energy security are completely about climate extremes. The project will need to clarify its climate focus here (more on variability than change) if it is to appropriately identify problems and potential solutions.</p>

		<p>While Sierra Leone’s COVID challenges are well-documented here, their connection to climate change impacts is tenuous. The project more or less argues that more food, safe water, and access to energy will allow for a more effective response to COVID, but this is quite vague.</p> <p>The barriers section of the PIF is clear and much better supported with evidence and references. Barrier five, however, offers evidence without any references on the specific barriers women face. It is therefore difficult to assess their validity or prevalence.</p>
	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?	
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	<p>The baseline appears to be almost entirely defined around the development of MSMEs. The climate component of the baseline references the NAPA, but does not present any climate-related data as a baseline. While this baseline does show that there are very few adaptation MSMEs, and suggests that without the project there are unlikely to be many more, the connection of these new MSMEs to a climate or environmental benefit is not clear because it is not clear what adaptation challenges these MSMEs would be taking on.</p> <p>The same issue arises with regard to the baseline uptake of adaptation technologies by rural populations. As it is not clear what they are adapting to, it is hard to know what technologies they need, or whether MSMEs could meet that need.</p>

	Does it provide a feasible basis for quantifying the project's benefits?	No
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	No. The table of additionality is detailed and useful, but it also lacks a clear connection to adaptation benefits more broadly, and even for MSMEs alone it is not clear how to quantify or otherwise measure the benefits.
	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;	Non-applicable.
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	The PIF states the project will build on lessons learned from the baseline projects described in table 1. STAP recommends adding a column to table 1, and describe the lessons from the baseline activities and how they will inform this LDCF project.
	how did these lessons inform the design of this project?	See above.
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	<p>STAP appreciates the inclusion of a formal theory of change in the PIF. The theory of change appears to be that with support to MSMEs, capacity-building in the finance sector and in government, and at least some support to rural/vulnerable populations to enable the purchase of new technologies developed by the MSMEs, access to adaptation will become more widespread. This will result in a diversified and climate-resilient economy, and inclusive and resilient energy, water, and agricultural sectors.</p> <p>This theory of change, however, is very general. Because it does not articulate the climate change impacts to which people are adapting in a direct manner and the climate change impacts noted in the barriers and threats discussion are either trivial (change in rainfall) or deeply intertwined with other issues (land use change), it is difficult to know what, exactly, the MSME's would develop</p>

		opportunities to adapt to. Table 2 specific about the technologies to be prioritized under this project, but the justification for this specificity is not grounded in a clear assessment of climate impacts, or indeed the root causes of the challenges (e.g. landslides and flooding) they seek to address. Therefore, the theory of change will be difficult to evaluate in practice
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	Improved institutional and policy framework for adaptation MSMEs will lead to a more hospitable innovation environment. This environment will then be catalyzed by support for growth and scaling up of MSMEs and improved access to financing for vulnerable populations, who will purchase the products of MSMEs. This, in turn, will disseminate needed technologies widely, yielding greater resilience across the economy and in the targeted sectors.
	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	The steps are to first to strengthen the institutional frameworks and coordination mechanisms to support adaptation MSMEs as they develop and deploy technologies/products/services into the water, agriculture, and energy sectors. Second, the project will provide growth and scale-up support to MSMEs in these sectors. Third, the project will work to allow vulnerable groups access to innovative financing the acquire resilience and adaptation technologies, products, and services in these sectors. The ToC argues that this will result in uptake of MSME innovations, which will yield a diversified and climate resilient economy, along with inclusive and resilient water, energy, and agriculture sectors.
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	This is difficult to assess, because the activities proposed are not targeted to specific stresses (which are underspecified in this PIF). Certainly, increased innovation can bring about new technologies and opportunities that promote adaptation, but it is not clear that this project's mechanisms of change go beyond that.

	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	No
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Non-applicable.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	This is not clear. While the activities speak to specific adaptation efforts (i.e. flood prevention), the activities are not well-grounded in an assessment of climate impacts and therefore it is not clear if they will stimulate meaningful adaptation to either the named challenges, or climate change impacts more broadly.
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?	It is possible there could be an adaptation benefit here, if this approach were to catalyze local solutions for climate change challenges. The approach itself might be scalable and therefore serve as a path to an adaptation benefit. However, the weak connection between activities and climate impacts makes this potential difficult to assess.
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes
	Are the global environmental benefits/adaptation benefits explicitly defined?	The adaptation benefits are clearly defined in the PIF .
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	No
	What activities will be implemented to increase the project's resilience to climate change?	There is no discussion of such activities
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?	The business model has the potential to be quite innovative, fusing local knowledge and innovation with a global environmental challenge. It may be that technologies/products/services developed under this model could themselves be innovative, but that is impossible to evaluate at the project planning stage.



	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	There appears to be a clear vision of how innovations produced by this model might be scaled up to the level of sectors in the Sierra Leonian economy.
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	This is an incremental adaptation, strengthening existing institutions and markets, and drawing on existing knowledge and skills, to address climate change impacts.
<b>1b.</b> Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		There is no map.
<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?	While the PIF lists a reasonable set of consultations with civil society, government, and private sector entities, it does not reflect any engagement with indigenous peoples and local communities. Given that this last group are the intended consumers of the products coming out of this program, a robust TOC should rest on an understanding of what this “market” sees as needed or interesting, and what barriers they see to engagement with these technologies/products/services. The project rests on an assumption that if technologies are available, and financing exists, people will buy and use the technologies. A substantial development literature exists that demonstrates this is a problematic assumption, as there are a host of local socio-cultural factors that shape the uptake of adaptation and development interventions. The engagement with women’s and youth organizations is commendable, but is not clearly linked to the goal of understanding the end consumer of the products and services.
	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?	The roles are clearly articulated in Table 3. It is not clear that any have a role in project design. They do have clear roles in project outcomes and could contribute to global environmental outcomes if this process proves to be scale-able. The stakeholder

		roles in lessons learned and knowledge is not articulated.
<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.</p> <p>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.</p> <p>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</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>The project notes that women and men often play different agricultural roles, and that women do not normally share direct benefits through income from their labor. However, the project has clearly identified this issue, and proposes to address it by modeling work conducted on gender empowerment and the environment in Sierra Leone.</p>

<p><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>	<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?  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>	<p>The risks are valid and comprehensive, and reflect things outside project control.</p> <p>The project does not answer how its objective or outputs might be affected by climate risks, nor has it assessed the sensitivity of the project to climate change impacts. In some ways, this makes sense, as the prescribed work in this project is not very sensitive to climate change. It is work on institutional and market capacity, which will produce products and services that address environmental issues. It does not, in and of itself, aim to address environmental issues directly.</p>
<p><b>6. Coordination.</b> Outline the coordination with other relevant GEF-financed and other related initiatives</p>	<p>Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?</p>	<p>Yes</p>
	<p>Is there adequate recognition of previous projects and the learning derived from them?</p>	<p>Yes</p>
	<p>Have specific lessons learned from previous projects been cited?</p>	<p>Yes, at various points in the PIF</p>
	<p>How have these lessons informed the project’s formulation?</p>	<p>Yes</p>
	<p>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?</p>	<p>Yes</p>
<p><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.</p>	<p>What overall approach will be taken, and what knowledge management indicators and metrics will be used?</p>	<p>The project will draw on the Sierra Leonian EPA’s knowledge management indicators and metrics, as they have experience with such work and an existing database. ASAP will lead on the creation of curriculum, taxonomy, adaptation technology database and measurement metrics on best adaptation technologies/practices. The project expects to develop benchmarks for innovations as the project proceeds and there is enough data to do so.</p>

	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	The plans for dissemination seem extensive, including training manuals, good practice guides, data sheets, posters, videos, radio programs and regular updating on the UNIDO website.
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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>