

## REVISED STAP SCREENING TEMPLATE

GEF ID	11272
Project title	Reducing risks on human health & the environment through reduction of POPs & U-POPs in Eswatini
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### 1. Summary of STAP's views of the project

This is an overly ambitious and wide-ranging project addressing different waste types from different sectors – health care (all wastes including mercury), single-use plastics, e-waste (e.g., containing POPs and lead), and household organic waste. Given the many challenges and that Eswatini is a small landlocked country, it is possible that addressing several sectors may be feasible. Still, the current project is spread too thin over too many areas and requires substantial revision before moving forward.

The full logic of activities for any one sector, the causal pathway in the theory of change (ToC), and the project description need to be better developed. For example, it is unclear which type of waste in healthcare demands destruction by replacing old incinerators with small-scale autoclaves or microwave devices (these handle very different types of waste).

There are several aspects of the proposal, including the rationale, components, proposed activities, and expected outputs and outcomes, that require more clarity, including, for example, the technical, environmental, and socioeconomic reasoning for wanting to use sugarcane bagasse for compost instead of current electricity use, financial mechanism interventions in the project, how behavior change will be achieved, etc. (see Section 2 for the list of issues).

The project seems to build off some existing projects (e.g., the 2022 UNDP project on waste management), but it is unclear whether the proposed projects build or overlap with some existing projects. No mention of how this project will leverage the knowledge and experience gained from these other projects is made.

Overall, the project requires significant improvement and focus. STAP has provided recommendations (Section 3) to help improve the project.

### STAP's assessment\*

Concur - STAP acknowledges that the concept has scientific and technical merit

✓ **Minor - STAP has identified some scientific and technical points to be addressed in project design**

Major - STAP has identified significant concerns to be addressed in project design

Please contact the STAP Secretariat if you would like to discuss.

### 2. Project rationale, and project description – are they sound?

See annex on STAP's screening guidelines.

The PIF provides a detailed description of the project background, including baseline information about the country, waste management status, and external drivers, including access to infrastructure, the economy, population, regulatory environment, etc. But this information could have been better described using a systems thinking approach that shows the interconnection between the elements and how they drive the current situation.

Further, the drivers (especially those outside the scope of the project, such as transportation infrastructure, availability of electricity and water, the economy, and population) and their future trends should have been

discussed to understand how they will play out in the future, and how these trends could affect the project, to ensure that interventions are designed to be robust to plausible futures.

Given that Eswatini is a small landlocked country, it is possible that addressing several sectors related to waste management (plastics, healthcare, e-waste, organic waste) in one project may be feasible. That said, the current proposal seems overly ambitious and wide-ranging. It looks more like a laundry list of activities with limited details on the specific activities and logical pathways leading to GEBs and desired outcomes and impacts.

The ToC needs to include clear and understandable causal pathways showing that the planned activities will likely deliver desired outcomes and the assumption underlying the pathways. Currently, outputs and outcomes are lumped and mixed together under desired outcomes making it impossible to understand the pathways from activity to outputs to outcomes and the expected desired impacts. Also, inserting assumptions and stakeholders between other elements of the theory of change makes it difficult to understand the logical chain and pathway to achieving success.

There are several aspects of the proposal, including the rationale, components, proposed activities, and expected outputs and outcomes, that require more clarity:

- a. Sugarcane bagasse: one activity is exploring the feasibility of an industrial-level composter to accept sugarcane bagasse and household organic waste from an urban area (p25), but the proposal also noted the decline of the sugarcane industry in Eswatini and so will such a facility have sufficient feedstock and managerial oversight into the future? Will the sugarcane industry be likely to finance this facility?
- b. Also, there is a need for clarity for wanting to divert sugarcane bagasse away from electricity generation. Has an economic, environmental, and social analysis of the benefit and trade-off been done, especially given that bagasse is a significant source of electricity for the energy-starved Eswatini? Is using bagasse as compost more economically and environmentally beneficial than its current use for electricity generation?
- c. It is unclear about the types of waste dealt with in healthcare that demand the need for destruction by replacing old incinerators with small-scale autoclaves or microwave devices (these handle very different types of waste), but also activities related to replacing mercury-containing devices and developing long-term disposal facilities for mercury.
- d. PIF needs more details on how components will be financed. For example, how will replacing mercury-containing medical devices with non-mercury-containing devices be funded?
- e. Also, the PIF talks about access to more accessible credit for women but needs clarity on where the credit is coming from, and there needs to be more detail about activities that will generate the finance or bring in outside investments. What are the details of the financing mechanisms or business models intended to be put in place for the project? Also, more information is required on the “financing mechanism based on potential PPP involving the sugarcane industry” that the project intends to explore (p25)
- f. Women’s engagement is mentioned throughout the PIF. However, it is unclear how this project could “allow women to sign a legally binding contract” or “register a business” similarly to a man – are there legal obstacles to this, or is it within the purview of this project to oversee such provisions? How will the project “partially address” laws affecting women’s decision to work and pay? (p28).
- g. Much of the PIF speaks about raising awareness but needs more detail on solutions after awareness is raised. For example, the proposal says: “For this reason, under this outcome, the project will at the same time provide information on the environmental impact of unsustainable behavior and will offer alternative solutions” (p23). What are the alternative solutions?
- h. Behavior change is mentioned in several project components, but beyond awareness raising, what strategies and incentives the project intends to use to promote behavior change, and how would they be tailored for the many different stakeholders involved? See [RARE 2019](#); [Allen 2021](#); [Parminter 2019](#); [Reddy et al. 2016](#); and [STAP’s documents on behavior change](#) for insights on this.
- i. There is a focus on promoting circularity, but how this will be achieved is unclear. For example, reverse logistics is planned for electronic products based on “sell one, take one” through cooperation with

retailers and importers. But the basis or incentive for the cooperation of retailers and importers is unclear. Also achieving this will also require addressing the electronic products coming into the country since the country does not manufacture the products. Would there be new legislation targeting importers?

- j. Row 2, Column 6 on page 20 seems to suggest that “plastic waste will be collected at a dedicated storage area before being delivered to landfills” Does this project intend to promote the landfilling of plastics wastes?
- k. What technologies, procedures, and materials will be introduced to prevent single-use plastics products as indicated in Row 3, Column 3 of page 20? Also, what technology will prevent the recycling of PBDE-containing plastics, Row 3, Column 3 of page 21? What type of plastics does the project intend to increase manufacturing capacity and quality for, and should this project support the increased production of plastics?
- l. It is unclear how the project will address the challenge of water, electricity, and safe transportation, which the PIF noted are required for some aspects of the proposed activities (healthcare, plastic, and electronic waste management). For example, the PIF should include an analysis to support the limited electricity supply for managing plastic waste rather than source reduction.
- m. There is concern that the project lacks internal consistency as several activities related to updating the regulatory framework, and yet “the project aims to establish a self-regulating network of technologies...” What does “a self-regulating network of technologies of different capacities and scopes to ensure the prompt and safe treatment of the generated healthcare waste in any condition” that the project intends to establish mean? (p27).
- n. Need to clarify the type of entrepreneurial opportunities that will be created in the healthcare waste sector under Output 4.1 for which women will be favored? (p27).

On regulations and policy coherence, the PIF addresses the project’s compliance with Eswatini’s environmental-related legislations and international agreements (p32) and gaps in environmental legislation in the country (Component 1). However, good policy coherence should ensure that no national policy undermines the outcomes of the country’s environmental policies and the objective of GEF projects (see [STAP, 2022](#)). Hence, it requires identifying whether there are conflicting policies and incentives in the country that can undermine the objective of this project and, if there are, ensuring that they are resolved.

It is good that the proposal presented the multiple GEBs to be achieved through the project, including greenhouse gas emission mitigated, POPs and uPOPs avoided/disposed, and residual plastics waste avoided. However, it did not note mercury avoided or eliminated as part of the GEBs, although the project intends to address mercury-containing devices in healthcare, and there is also potential to achieve mercury GEB from e-waste management.

The basis for the expected GEB also needs explanation. For example, how was the estimated greenhouse gas emission reduction and avoided residual plastic waste calculated? Also, is it realistic that the project will prevent all the waste not managed in the country through nationwide communication campaigns and rule enforcement (p30)? What is the source of data (or the assumptions) used to determine a 40,000 to 50,000 old CRT monitor that the project aims to collect and manage (p30)?

Also, the project will generate local environmental co-benefits of improved air quality, and the PIF also noted possible job creation and income socio-economic co-benefits (although this needs better clarification). These need to be explicitly noted in the PIF and accounted for when the project is implemented.

Details are scant on monitoring and how adaptive management will be achieved.

### 3. Specific points to be addressed, and suggestions

STAP recommends the following:

1. Use the systems thinking approach to analyze the drivers of change to understand the interlinkages, causes and effects, to inform intervention options.
2. Also, consider developing a narrative of plausible futures that considers the potential impacts of these drivers and associated uncertainties on achieving the project's goal. This could inform the design of intervention options that are robust to the different ways the future could play out. See STAP's [primer on future narratives](#) for more guidance.
3. Provide more details on how the project builds off of lessons learned from previous and ongoing complementary projects.
4. Develop a clear theory of change that provides an “explicit account of how and why the proposed interventions would achieve their intended outcomes and goal, based on outlining a set of key causal pathways arising from the activities and outputs of the interventions and the assumptions underlying these causal connections.”
5. Address points a-m listed in Section 2. Provide clarity and address the concerns raised as appropriate.
6. Consider undertaking a policy coherence analysis (as part of the policy and regulatory component of the project) to understand where conflicting policies can hinder the achievement of the expected outcomes and ensure these are addressed appropriately. See [STAP's paper on policy coherence](#) for more guidance.
7. Develop a stakeholders engagement strategy.
8. Provide clarity on the estimate of expected GEBs. Also include mercury as part of expected GEBs.
9. Also, provide information on the expected GEB and other key expected outcomes in the project summary
10. Make provision to track, measure and report the co-benefits to be achieved through the project. Please see STAP's recent [paper on incorporating co-benefits in GEF's investments](#) for guidance.

\*categories under review, subject to future revision

## ANNEX: STAP'S SCREENING GUIDELINES

1. How well does the proposal explain the problem and issues to be addressed in the context of the **system** within which the problem sits and its drivers (e.g. population growth, economic development, climate change, sociocultural and political factors, and technological changes), including how the various components of the system interact?
2. Does the project indicate how **uncertain futures** could unfold (e.g. using simple **narratives**), based on an understanding of the trends and interactions between the key elements of the system and its drivers?
3. Does the project describe the **baseline** problem and how it may evolve in the future in the absence of the project; and then identify the outcomes that the project seeks to achieve, how these outcomes will change the baseline, and what the key **barriers** and **enablers** are to achieving those outcomes?
4. Are the project's **objectives** well formulated and justified in relation to this system context? Is there a convincing explanation as to **why this particular project** has been selected in preference to other options, in the light of how the future may unfold?
5. How well does the **theory of change** provide an "explicit account of how and why the proposed interventions would achieve their intended outcomes and goal, based on outlining a set of key causal pathways arising from the activities and outputs of the interventions and the assumptions underlying these causal connections".
  - Does the project logic show how the project would ensure that expected outcomes are **enduring** and resilient to possible future changes identified in question 2 above, and to the effects of any conflicting policies (see question 9 below).
  - Is the theory of change grounded on a solid scientific foundation, and is it aligned with current scientific knowledge?
  - Does it explicitly consider how any necessary **institutional and behavioral** changes are to be achieved?
  - Does the theory of change diagram convincingly show the overall project logic, including causal pathways and outcomes?
6. Are the project **components** (interventions and activities) identified in the theory of change each described in sufficient detail to discern the main thrust and basis (including scientific) of the proposed solutions, how they address the problem, their justification as a robust solution, and the critical assumptions and risks to achieving them?
7. How likely is the project to generate global environmental benefits which would not have accrued without the GEF project (**additionality**)?
8. Does the project convincingly identify the relevant **stakeholders**, and their anticipated roles and responsibilities? is there an adequate explanation of how stakeholders will contribute to the

development and implementation of the project, and how they will benefit from the project to ensure enduring global environmental benefits, e.g. through co-benefits?

9. Does the description adequately explain:

- how the project will build on prior investments and complement current investments, both GEF and non-GEF,
- how the project incorporates **lessons learned** from previous projects in the country and region, and more widely from projects addressing similar issues elsewhere; and
- how country policies that are contradictory to the intended outcomes of the project (identified in section C) will be addressed (**policy coherence**)?

10. How adequate is the project's approach to generating, managing and exchanging **knowledge**, and how will lessons learned be captured for adaptive management and for the benefit of future projects?

**11. Innovation and transformation:**

- If the project is intended to be **innovative**: to what degree is it innovative, how will this ambition be achieved, how will barriers and enablers be addressed, and how might scaling be achieved?
- If the project is intended to be **transformative**: how well do the project's objectives contribute to transformative change, and are they sufficient to contribute to enduring, transformational change at a sufficient scale to deliver a step improvement in one or more GEBs? Is the proposed logic to achieve the goal credible, addressing necessary changes in institutions, social or cultural norms? Are barriers and enablers to scaling be addressed? And how will enduring scaling be achieved?

12. Have **risks** to the project design and implementation been identified appropriately in the risk table in section B, and have suitable mitigation measures been incorporated? (NB: risks to the durability of project outcomes from future changes in drivers should have been reflected in the theory of change and in project design, not in this table.)