

## REVISED STAP SCREENING TEMPLATE

GEF ID	11110
Project title	Fortifying Infrastructure for Responsible Extinguishments (FIRE)
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### 1. Summary of STAP's views of the project

This project seeks to eliminate the uncontrolled release of PFAS by airports in five African countries (Egypt, Ethiopia, Kenya, Nigeria, and South Africa). These airports represent the heaviest air-trafficked on the continent; hence, eliminating PFAs use, apart from immediate GEBs, could also serve as examples and catalysts for scaling to other airports.

The proposal presents a good analysis of the problem and its connection with the environment and human health. It addresses the technical as well as policy and regulatory dimensions of the issues. The theory of change presents the causal pathway and some underlying assumptions, but the enablers could be better described.

The project components were detailed, and STAP welcomes this. However, some aspects of the interventions need to be improved to ensure the durability of project outcomes and GEBs and facilitate replication, scale-up, and possible transformation in the sector. Furthermore, the assumptions and basis for the expected GEBs need to be better described.

Overall, STAP believes that with some improvements to the project design, this project can create examples to help catalyze action on hazardous chemicals in firefighting foams. Specific STAP comments and recommendations for improvement are presented in Sections 2 and 3, respectively.

### 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.

**Systems thinking:** Although this project is not complex, the proponent has sufficiently detailed its intention and purpose. The proposal adequately explained the connection between the targeted chemicals, their environmental fate, and human health effects. The proposal also demonstrates systems thinking by considering regulatory review and drafting model regulations along with necessary training (needed to promote enduring change) to develop an inventory and feasibility assessment, then developing phase-out plans that include the need for an infrastructure overhaul, operating training, and discussions about supply chains and procurement.

**Baseline, barriers, and enablers:** Baseline problems and the future without intervention are well described. The barriers to transitioning from PFAS-based firefighting foams in the targeted country were identified. The factors

that can enable the project's success (e.g., countries being signatories to the Stockholm Convention and members of ICAO) could be better described.

**Lessons from past projects:** Given that this will be one of the first GEF-supported projects on this issue, it is not surprising that the proposal does not significantly build on past GEF projects, although some related baseline projects outside GEF were identified. The PIF also makes a case for the project based on Stockholm monitoring results and discussions of Stockholm provisions for listed selected PFAS. When designing the project further, the proponent should also consider lessons that could be learned from PCB destruction projects (and PCB mishandling).

**Project objectives:** The project's objective was well formulated, and the fact that the project is targeting airports in five countries among the most heavily air-trafficked in Africa is a reasonable justification.

**Theory of Change:** The proposal presents sound causal pathways drawn between interventions and intended outcomes and goals and shows some assumptions underlying the pathways to achieving the project objective. The scientific foundation is sound. The proposal explicitly addresses institutional changes that need to be achieved and behavioral changes that can be achieved through knowledge management of best practices and training. The assumptions could be improved by considering enablers of success – what will be done to ensure that they come true (e.g., how barriers to adopting updated regulations would be addressed and what to do to ensure that vendors can meet increased demand).

**Project components** were generally well identified in ToC and adequately described, including why and how. Areas that need strengthening include:

- How F3 foams will be monitored for adulteration and how adulteration of F3 foams will be dealt with
- How would the academic and analytical community be engaged, for example, regarding the complexity of analytical methods for PFAS and F3 foams?
- Regarding regulatory context, what will be done to ensure ICAO standards align with the project's objective (if not already), given that most countries "do not typically develop individual specifications for chemical agents but simply refer to the ICAO standard"? The proposal is unclear if ICAO standards require airports to stop using PFAS firefighting foams. If this is not yet the case, working with ICAO to update their standard would be necessary for project success.
- Further on regulations, it is essential to consider the policy coherence dimensions. With the proposed review of existing legislation and drafting of model ones, it is critical to identify gaps and any contradictory policies that could antagonize new regulations, with the goal of addressing them holistically in a way that ensures coherence between policies and prevents leakage or hinders the durability of the GEBs to achieved through the project.
- Regarding AFFF concentrate disposal, it is unclear why reselling concentrate to other airports within the same country is a good solution. The proponent should consider options that remove these chemicals entirely from use in the targeted countries. Reselling chemicals deemed for elimination could send a wrong message to important actors in the sector.
- Need to clarify why the feasibility of introducing F3 would be conducted for 10 airports and technical support would only be provided to 5 airports.
- Beyond a cost-benefit analysis, the proposal needs to incorporate activities related to sustainable financing (i.e., actions to bring in funds beyond GEF's investments) of environmentally sound destruction of targeted chemicals and upgrade firefighting facilities in targeted airports. What would be done to bring in more finance which could be a model to facilitate replication and scale-up?

**Global Environmental Benefits:** The size of the expected GEBs was provided, but how the estimates were calculated needs to be clarified. The basis for the assumptions used in estimating the GEBs is unclear; for example, on what basis was it decided that civilian airport account for 75% of demand; what is the basis for the 10%, 25%, 40%, and 60% assumption of removal of PFAS class B foam in year 2, year 3, year 4 and year 5 of the project? Furthermore, the sentence on p23 of the PIF, "*five LMEs (Guinea Current, Benguela Current, Agulhas*

*Current, Somali Coastal Current, Mediterranean Sea) will have reduced pollution as a result of the project (5.2),” is unclear. How is this related to the project?*

**Stakeholders:** Relevant stakeholders were identified, although STAP expects their role and engagement to be woven into the project rationale and description rather than having a standalone description of stakeholders. Also, it is unclear if the currently proposed arrangement will be sufficient; for example, will annual meetings of the steering committee be adequate to allow for project evaluation and revision if needed?

**Knowledge Management (KM):** the project included a knowledge management component that was well described. The KM component is expected to contribute to the overall impact and sustainability of the project and help facilitate the dissemination of best practices from the project and possibly replication elsewhere.

**Innovation and transformation:** The project will do well to accelerate the use of F3 by switching out for PFAS-containing AFFF. The project discusses current barriers such as switching costs (e.g., infrastructure costs, higher cost of F3, training) and that financial barriers would benefit from GEF investment to lower those barriers. Putting in place legislation, training, and connecting with vendors & procurement officers will promote enduring transformative change.

**Risks:** the risk analysis could be better described, such as undercutting the F3 market by cheap AFFF “dumped” into the market, the cost of analyzing F3 stocks to ensure that they aren’t adulterated, and barriers to adopting revised legislation (have regulators been sufficiently engaged?)

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

Based on the comments in section 2, STAP recommends that the proposal be improved by addressing the following:

1. We encourage the proponent to consider undertaking a policy gap/coherence analysis 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.
2. Explicitly address how the adulteration of F3 foams will be dealt with.
3. Consider how to work with ICAO to ensure their standards align with the project’s objective (if not already) since many countries depend on them for guidance.
4. Seek alternative solutions that remove Stockholm PFAS chemicals entirely from circulation rather than reselling concentrate to other airports.
5. Clarify why the feasibility of introducing F3 would be conducted for 10 airports, and technical support would only be provided to 5 airports.
6. Incorporate interventions related to sustainable financing (i.e., beyond GEF’s investments) that can help facilitate replication and scale-up within the targeted countries and those outside the project.
7. Consider improving the planned engagement of stakeholders to ensure good and sustained buy-in and contribution to project success.
8. Consider incorporating lessons from projects related to Stockholm chemical destruction, e.g., PCBs, when designing the project further.
9. Consider providing a better description of enablers, assumptions in ToC, and the risks to project implementation.
10. Ensure that the KM component is well designed and implemented, geared towards promoting replication, scale-up, and transformation in the sector, targeting within and outside project countries.
11. Provide more information on the assumptions and basis for calculating the GEBs.

\*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.)