

## STAP guidelines for screening GEF projects

PIF	What STAP looks for	Response
<p>GEF ID: <b>10864</b>            Project Title: <b>Sustainable Mercury Management in Non-ferrous Metal Industry</b>            Date of Screening: November 10, 2021            STAP member screener: Saleem Ali            STAP secretariat screener: Sunday Leonard            STAP's overall assessment: Minor issues to be considered during project design.</p>	<p>This project seeks to address mercury emission in an important but less focused area: emissions from the non-ferrous metal industry.</p> <p>The proponents have presented a general theory of change with outputs in terms of "Best Available Technologies" (BAT). However, there needs to be further specificity around which of these technologies will be prioritized and based on which criteria. For example, there is a mention of bacterial agents as a possible mechanism for bioremediation. However, no citations or examples are given. There is a mention of a technology developed by Boliden in Sweden, but its efficacy and applicability are not presented. While further details may be developed during the PPG, there should be some defined parameters on prioritizing them in the PIF. A good recent citation to refer to in this regard is:</p> <ul style="list-style-type: none"> <li>• Yang, et al. 2021. Removing and recycling mercury from scrubbing solution produced in wet non-ferrous metal smelting flue gas purification process. <i>Journal of Environmental Sciences</i>, 103, 59–68. <a href="https://doi.org/10.1016/j.jes.2020.10.013">https://doi.org/10.1016/j.jes.2020.10.013</a></li> </ul> <p>Although an environmental and social assessment of the project's potential impacts was prepared, the possible effects of climate change on the project have not been addressed. Climate risk screening for this project deserves attention. First, because smelters are major energy users, any changes to productivity could impact the carbon emissions profile. Further due diligence approaches in this regard should be mentioned. Second, changing climate is expected to affect the transport and fate of mercury in the environment (see, for example, Siddiqi 2018: <a href="https://doi.org/10.1007/978-3-319-58538-3_56-1">https://doi.org/10.1007/978-3-319-58538-3_56-1</a>). Hence it is essential to develop interventions considering the climate profile of the region where this project will be implemented. Therefore, we recommended that a detailed climate risk screening be carried out using available tools within the World Bank (for example, <a href="https://climatescreeningtools.worldbank.org/">https://climatescreeningtools.worldbank.org/</a>).</p> <p>Given that mercury emissions from the non-ferrous metal industry may occur concurrently with carbon dioxide and unintentional persistent organic pollutants (uPOPs) emissions (see Yan et al. 2020: <a href="https://doi.org/10.1016/j.chemosphere.2020.126958">https://doi.org/10.1016/j.chemosphere.2020.126958</a>; Katima and Leonard, 2020: <a href="https://stapgef.org/resources/advisory-documents/delivering-multiple-benefits-through-sound-management-chemicals-and">https://stapgef.org/resources/advisory-documents/delivering-multiple-benefits-through-sound-management-chemicals-and</a>), there is an opportunity to link this project with carbon and uPOPs mitigation efforts including recent China's commitments to the Paris Agreement targets. Therefore, the technology selection process for this project should consider options that will deliver multiple benefits across climate change, mercury, and uPOPs mitigation.</p> <p>In line with the above, the Global Environment Benefits from this project needs to incorporate these potential opportunities for carbon and uPOPs mitigation co-benefits. We encourage the project proponent to carry out a detailed analysis of these benefits at the PPG stage and provide details of how the project will maximize and deliver the possible GEBs.</p>	

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<b>Part I: Project Information</b> <b>B. Indicative Project Description Summary</b>		
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes – mercury reduction objective is clearly defined
Project components	A brief description of the planned activities. Do these support the project's objectives?	Yes – though scattered between 3 different documents
Outcomes	A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits? Are the global environmental benefits likely to be generated?	Partially presented though some of this is ambiguous as the prioritization of the technologies is not provided.
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?	Yes, there are a series of outputs listed along with each outcome
<b>Part II: Project justification</b>	A simple narrative explaining the project's logic, i.e. a theory of change.	
<b>1. Project description. 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? Are the barriers and threats well described, and substantiated by data and references? 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?	Partially – could be linked more so to climate and uPOPs mitigation as well.

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2) the baseline scenario or any associated baseline projects	<p>Is the baseline identified clearly?  Does it provide a feasible basis for quantifying the project's benefits?  Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?  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;  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?</p>	Yes, baseline details on existing smelter performance are provided with reference to government programs on benchmarking.
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	<p>What is the theory of change?  What is the sequence of events (required or expected) that will lead to the desired outcomes?</p> <ul style="list-style-type: none"> <li>• What is the set of linked activities, outputs, and outcomes to address the project's objectives?</li> <li>• Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?</li> <li>• Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?</li> </ul>	Theory of change document is provided in congruence with suggested STAP guidelines.
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	<p>GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?  LDCF/SCCF: will the proposed incremental activities lead to adaptation</p>	Noted

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	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)	<p>Are the benefits truly global environmental benefits, and are they measurable?</p> <p>Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?</p> <p>Are the global environmental benefits explicitly defined?</p> <p>Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?</p> <p>What activities will be implemented to increase the project's resilience to climate change?</p>	Details of how the estimate was derived are missing. The project also needs to consider opportunities for climate and uPOPs mitigation.
7) innovative, sustainability and potential for scaling-up	<p>Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?</p> <p>Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?</p> <p>Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?</p>	There is potential for innovation, particularly with reference to biotic remediation methods using mercury-resistant bacteria.
<b>1b.</b> Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		Provided
<b>2. Stakeholders.</b> Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local communities;	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	Partially provided

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<p>Civil society organizations; Private sector entities.</p> <p>If none of the above, please explain why.</p> <p>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.</p>	<p>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>	
<p><b>3. Gender Equality and Women's Empowerment.</b></p> <p>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>Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?</p>	<p>Gender equity plan provided though fairly generic.</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?</p> <p>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> </ul>	<p>This area could be improved, as noted in the earlier comments.</p>

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	<ul style="list-style-type: none"> <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><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>Is there adequate recognition of previous projects and the learning derived from them?</p> <p>Have specific lessons learned from previous projects been cited?</p> <p>How have these lessons informed the project's formulation?</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><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>What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?</p>	<p>Partially noted</p>

### STAP's advisory response

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Concur</b>	<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>
<b>2. Minor issues to be considered during project design</b>	<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> <ul style="list-style-type: none"> <li>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;</li> <li>(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.</li> </ul> <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>
<b>3. Major issues to be considered during project design</b>	<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> <ul style="list-style-type: none"> <li>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;</li> <li>(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.</li> </ul>