

Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility
(Version 5)

STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: May 09, 2017
Screener: Sunday Leonard
Panel member validation by: Ricardo Orlando Barra Rios; Ralph E. Sims
Consultant(s):

I. PIF Information *(Copied from the PIF)*

FULL-SIZED PROJECT	GEF TRUST FUND
GEF PROJECT ID:	9605
PROJECT DURATION:	5
COUNTRIES:	Global
PROJECT TITLE:	Building Partnerships to Assist Developing Countries Minimize the Impacts from Aquatic Biofouling (GloFouling Partnerships)
GEF AGENCIES:	UNDP
OTHER EXECUTING PARTNERS:	IMO
GEF FOCAL AREA:	International Waters

II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):
Minor issues to be considered during project design

III. Further guidance from STAP

This project titled "building Partnerships to Assist Developing Countries Minimize the Impacts from Aquatic Biofouling (GloFouling Partnerships)" aims to "to build capacity in developing countries for implementing the IMO and other relevant guidelines for biofouling management and to catalyse overall reductions in the transboundary introduction of biofouling-mediated invasive aquatic species with additional benefits in the reduction of GHG emissions from global shipping". The project will focus on 8 to 12 Lead Pilot Countries who will take a fast-track approach to reach the objectives of the project and through this catalyse an industry transformation at national, regional and global levels through the multi-tiered intervention model to be used in the implementation of the project.

The project will seek to assess relevant national and regional policies, legislation and institutions in the selected pilot countries; develop capacity for implementation of the 2011 biofouling guidelines; build on existing partnerships and mechanisms to bring the private sector participation and manage knowledge to achieve the project objectives.

The project document indicates a good analysis of the problems/issues and suggested activities seems to be consistent with achieving the project objectives. The STAP however have the following comments which should be considered during the project design:

1. Problem description: some part of the problem description and baseline information seems to be based on speculations. For example, on page 9, the following statement are speculations: "As almost 90% of the motorized fishing vessels in the world are less than 12m in length, such vessels dominate everywhere particularly in Africa, Asia and the Near East. Their hull maintenance and anti-fouling protection methods are likely to be unorganised. Similarly, on the same page, the following speculative statement was made: "in addition, it is possible that the ineffective cleaning methods may lead to localised hot spots of pollution".

Given that this is important to the baseline of the studies, we advise that this information should be backed by relevant scientific findings or included as part of the baseline study to be conducted during the project implementation. Along same line, it will be useful if references can be provided for some of the facts and figures provided in the project document, for example, Table 1 on page 8, the fuel penalties for US Navy ships on page 10, and Figures 1, 2 and 3 on page 12 and 13.

2. Pilot countries: the countries where the project will be piloted have not been indicated in the current project document. It will be useful, at a minimum, to provide an indication of which countries are being considered or the criteria that will be used in selecting countries, such that project objectives can be achieved and further replicated elsewhere. Furthermore, what will determine how many pilots ("in 8 to 12 lead pilot countries")? Does this reconcile with the twice stated "at least 5 pilot countries" in Section F? If so should it not be "in 10 to 12" in component 1 of Table 2?

3. It is good the recent work (and publications) of the IMO should be reviewed in terms of reducing emissions to assess its relevance to this project. The link with GEF support is well noted. Furthermore, there could also be knowledge accruing from a CCM project on shipping emissions in Russia (Project PIF - 5530 Green Shipping Programme for Russia).

4. There is a need for more clarity on how the emissions reduction potential from this project, including the methodology, has been calculated. For example, what is the basis for the assumptions made about the gradual rise from (30% to 40% in 2020 and 50% in 2030) in the implementation and achievement of the total possible adoption of relevant tools and measures in the second paragraph on page 24? If possible, can the CO2 emission reduction benefits from implementation of the measures be presented by comparing the baseline under current business as usual scenario until 2050 or 2100 and the equivalent scenario if biofouling measures are implemented? This will make the benefits from this project more understandable. Along same lines, it will be useful to assess the cost of reducing one ton of CO2 in this project and compare that with the cost of reducing CO2 in other sector and with the theoretical globally acceptable cost so as to provide more justification for the project.

5. Furthermore, the 50 Mt CO2-eq target is ambitious but there are no data provided as to how it might be met through the project – for example, how many ships would need to be involved in the pilot countries and what tonnage?

6. On Page 24 it states: "by addressing the contribution of biofouling to increased frictional resistance on ship hulls and the resulting increase in fuel consumption, the GloFouling project will deliver tangible reductions in global GHG emissions. The solutions enabled by the GloFouling project have the potential to reduce hydrodynamic penalties anything between 5 to over 15%. However, the IPCC AR5-Mitigation Chap 8 Transport states: anti-fouling coatings to cut water resistance, along with operation at optimal speeds, can provide 5-30 % improvement (Pianoforte, 2008; Corbett et al., 2009; WSC, 2011). Yet here in this project, optimal speeds is not mentioned. We suggest that the two mitigation options should both be followed in order to maximize the climate mitigation benefits.

7. Component 2 would include a pilot/demonstration project in selected ports and marine protected areas. However, no detail was provided on what the objectives of demonstration project as well as what it would entail. More information should be provided on what activities will be undertaken during the demonstration aspect of the project. Is the demonstration going to involve actual testing or implementation of biofouling remedial measure? What methodology would be used to assess success for CO2 emissions reduction and for prevention of IAS? Would there be field or laboratory experiments and control sampling? What specific mitigation measures is planned to be implemented? Does this include non-chemical measures (see for example: <http://www.sciencedirect.com/science/article/pii/S1369702110700584> and <https://www.nature.com/articles/ncomms1251>)? These information are needed to ascertain the robustness of the project.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Concur	In cases where STAP is satisfied with the scientific and technical quality of the proposal, a simple "Concur" response will be provided; the STAP may flag specific issues that should be pursued rigorously as the proposal is developed into a full project document. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design prior to submission for CEO endorsement.
2. Minor issues	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed

<p>to be considered during project design</p>	<p>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. (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>3. Major issues to be considered during project design</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.</p> <p>The GEF Secretariat may, based on this screening outcome, delay the proposal and refer the proposal back to the proponents with STAP's concerns.</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>