

# 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: February 24, 2014

Screener: Douglas Taylor

Panel member validation by: Annette Cowie; Sandra Diaz  
Consultant(s):

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

**FULL SIZE PROJECT    GEF TRUST FUND**

**GEF PROJECT ID:** 5578

**PROJECT DURATION :** 5

**COUNTRIES :** Tonga

**PROJECT TITLE:** R2R Integrated Land and Agro-ecosystem Management Systems

**GEF AGENCIES:** FAO

**OTHER EXECUTING PARTNERS:** Ministry of Agriculture and Food, Forests, and Fisheries (MAFFF); Ministry of Land Survey, Environment, Climate Change, and Natural Resources (MLECCNR)

**GEF FOCAL AREA:** Multi Focal Area

### 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 revision required**

### III. Further guidance from STAP

1. This project proposal, addressing primarily land degradation, is one of two scheduled for Tonga under the parent Pacific Islands Ridge to Reef Program (GEF ID 5395), the other focusing on biodiversity conservation and application of the Ridge to Reef concept. An additional GEF Medium Sized Project targets one of the main lagoons also within the Program.
2. The proposed project targets root causes for deforestation and land degradation aiming to undertake policy and legal review, strengthen land administration and enforcement and promote sustainable agro-ecosystem approaches, with modest potential for global environmental benefits.
3. STAP has a number of concerns about the design of the project and advises, through its rating of Minor Revision, that the proponent should take into account the following advice.
4. The PIF presents a bleak view of the current situation, - barriers described appear to be insurmountable - so the assessment of significant risk seems valid, and the modest claims for benefits would seem to be realistic. However, the baseline activities are not clearly described and therefore incremental benefits are hard to assess.
5. Components 1, 2 and 4 are poorly developed. While the proposal seeks the majority of funding for land degradation, a comprehensive approach to management of land degradation is not presented; rather the strategy to manage land degradation appears to rely almost entirely on housing or confining pigs.
6. There is very limited detail on the proposed components, apart from the strategy to house pigs for biogas production. The other elements envisaged in Component 2, integrated agro-ecosystem management systems, should be described.
7. Controlling pigs is a desirable objective that will deliver multiple benefits; however, it is not clear how this constitutes an integrated agro-ecosystem management system. Several aspects could be clarified in the full proposal, such as how the pigs will be fed, and how social barriers to adoption of the alternative approach to raising pigs will be overcome. In the section on expected global environmental benefits please note that organic fertiliser from biogas digestate will replace expensive and GHG-intensive chemical fertiliser (not pesticide!).

8. To address the issue of limited energy sources, perhaps the proponent could consider energy crops such as coconut or oil palm, which can be successfully cultivated on degraded land, restoring soil and biomass carbon and substituting for imported fossil fuels. A sustainability assessment would need to be undertaken in assessing the viability of integrating energy crops into agricultural systems that also takes into account recovery of forest biodiversity.

9. The full proposal should detail the proposed technique for rainwater harvesting.

10. It is not clear how Component 1 will deliver the outcomes claimed, especially reduced vulnerability to drought, and how the proposed policy framework will tackle the issue of agricultural expansion.

11. Component 4 is a generic description that would benefit from more detail, that demonstrates understanding of the particular constraints to adoption in this community

12. STAP requests that the proponents clarify the proposed linkage and integration with the second biodiversity-focused project (UNDP). This linkage is alluded to in section A.4 on Coordination but not in sufficient detail. The concern that STAP has relates to the need to integrate policy and land use planning approaches which are not cross-referred to the proposed biodiversity focused project from the present project, except very briefly from Component 2. Also section A.4 does not mention how the project will connect to or benefit from the regional parent Program. In particular, the ecosystem-based Ridge to Reef approach calls for a spatially coherent approach to land and water use. However, the choice of pilot sites and expected outputs of Components 1 and 2 appear to sit in isolation from the more strategic approach outlined for Ridge to Reef. This aspect should be clarified in the full project brief, including likely trade-offs and leakage estimates.

13. On the other hand Component 3 on mainstreaming sustainable forest management could deliver useful and strategic results which will help to target remedial actions and can be well integrated into a Ridge to Reef approach.

#### Integration and sustainability

14. From the Program perspective the PIF proposes dissemination of lessons learned through the regional learning network but is silent about the regional support to be delivered to the project. For example, regarding capacity building and expertise sharing, STAP advised that the parent Program has the opportunity, at least for the cluster of 14 countries represented with the Program, to strengthen the scientific and technical linkages between the PICs, building upon the SOPAC mechanism. The Science, Technology and Resources Network (STAR) of SOPAC could build capacity to make operational a regional multidisciplinary network similar to the SIDSTAP concept, augmented with SOPAC-STAR support and in coordination with the University of the South Pacific

15. STAP recommended in its screening of the regional support project (GEF ID 5404) that it should include support for a multi-focal "PacIW:LEARN" for the region, which could act to sustain a peer to peer scientific and technical network for in-service training. This would satisfy the long standing demand under the Mauritius Strategy for Implementation, at least in this Pacific SIDS area. This advice was provided for the reason that, given the complex multidisciplinary threats and barriers shared by many of the PICs to be overcome, the sharing of expertise between PICs would strengthen sustainability of individual projects within the Program, but also across the other GEF and non-GEF projects delivering against allied environmental targets. In this connection the inclusion of knowledge management (Component 4) is welcomed and STAP advises that beyond fulfilling IW:LEARN obligations, that the project should connect more formally to the proposed regional network as discussed above. Additionally, the baseline PacIWRM project's successful delivery of distance learning and twinning for IWRM capacity development is an excellent basis to build on regionally and nationally.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	<p>STAP acknowledges that on scientific or technical grounds the concept has merit. However, STAP may state its views on the concept emphasizing any issues where the project could be improved.</p> <p>Follow up: The GEF Agency is invited to approach STAP for advice during the development of the project prior to submission of the final document for CEO endorsement.</p>

<b>2. Minor revision required.</b>	<p>STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.</p> <p>Follow up: One or more options are open to STAP and the GEF Agency:</p> <ul style="list-style-type: none"> <li>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</li> <li>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</li> </ul>
<b>3. Major revision required</b>	<p>STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.</p> <p>Follow-up:</p> <ul style="list-style-type: none"> <li>(i) The Agency should request that the project undergo a STAP review prior to CEO endorsement, at a point in time when the particular scientific or technical issue is sufficiently developed to be reviewed, or as agreed between the Agency and STAP.</li> <li>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</li> </ul>