# 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: December 20, 2013 Screener: Guadalupe Duron

Panel member validation by: Anand Patwardhan
Consultant(s):

**I. PIF Information** *(Copied from the PIF)*
**FULL SIZE PROJECT LEAST DEVELOPED COUNTRIES FUND**
**GEF PROJECT ID**: 5433
**PROJECT DURATION** : 4
**COUNTRIES** : Mozambique
**PROJECT TITLE**: Strengthening Capacities of Agricultural Producers to Cope with Climate Change for Increased Food Security through the Farmers Field School Approach
**GEF AGENCIES**: FAO
**OTHER EXECUTING PARTNERS**: Ministry of the Coordination of Environmental Affairs (MICOA) and Ministry of Agriculture (MINAG)
**GEF FOCAL AREA**: Climate Change

**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**

STAP acknowledges FAO's proposal on "Strengthening capacities of agricultural producers to cope with climate change for increased food security through farmers field school approach" in Mozambique. The project description provides a good overview of the climate vulnerability context of smallholder farmers in Mozambique. STAP is pleased the project will build upon FAO's experiences with farmer field schools, including lessons from its GEF projects. Below, some of STAP's recommendations draw from a previous review of a FAO/GEF project on farmer field schools. STAP encourages the FAO to consider these recommendations, and others listed below, in the development of the full proposal.

1. It would be useful to express more succinctly the project objective, so the adaptation objectives are explicit. Currently, the objectives are not clearly worded.

2. STAP recommends specifying further the expected outputs and outcomes by identifying indicators on what will be measured (example â€“ percentage of soil, water, and crop management practices adopted by farmers (sub-activity 1.1.5)). Doing so, will help measure the intended effect of each intervention. Also, it appears as if some outputs are outcomes, and vice-versa. The project developers may wish to review the project framework in this regard.

3. Although the concept of farmer field schools is widely known in the agricultural field, STAP suggests defining what is meant by the "farmer field schools methodology", and how it has proven (or intends) to increase agricultural productivity and improve farmers' livelihoods. The concept appears not to be defined in the proposal, and the evidence of farmer field schools could be detailed further by drawing from sources (example â€“ unpublished rigorous studies, published documents). More importantly, the proposal needs to assess the farmer field schools approach with regards to climate change adaptation and climate resilience. This information appears absent in the proposal.

4. Component 1, 2 and 3 seek to involve different individuals (and institution) potentially with distinct preferences and needs on mainstreaming climate resilience and development strategies across different levels â€“ at the community, district, and national levels. Understanding the inter-linkages between how farmers perceive and address climate resilience amidst other on-going adaptation efforts stemming from baseline projects, district and national attempts, is imperative to formulating appropriate adaptation

responses and policies. This notion is detailed further in the following paper that provides a useful framework for working across multiple institutional scales on climate change adaptation in Mozambique. The FAO may wish to draw upon this literature to strengthen the role of multiple engagements (institutions) across the components, given the number of stakeholders involved and the intended outcomes: Osbahr, H. et al "Effective livelihood adaptation to climate change disturbance: Scale dimensions of practice in Mozambique". Geoforum 39, page 1951-1964. 2008.

5. In component 2, STAP recommends defining further the climate-resilient agricultural practices the project will strengthen. Currently, agricultural practices are only broadly defined in the proposal in component 2. Additionally, it appears the proposal does not identify the livestock management practices â€“ for example, will these include mixed crop-livestock approaches? It also would be valuable to detail further how climate vulnerability is expected to influence the agro-ecological conditions in each of the target areas, and how each proposed practice/technology intends to reduce farmers and pastoralists vulnerability to climate change. The project developers may wish to refer to the following paper that analyzes the determinants of adaptation measures in agricultural, and livestock systems: Bryan, E. et al. "Adapting agriculture to climate change in Kenya: Household strategies and determinants". Journal of Environmental Management. (2013). Pages, 26-35.

6. As noted above, STAP is pleased that FAO will draw upon its experiences on farmer field schools, including FAO/GEF projects relying on the methodology. Thus, STAP suggests for FAO to draw-upon its recommendations on GEF project #4270 (Angola). These recommendations include the following â€“

i. Based on experiences from East Africa, the literature suggests the evidence base for success in using the farmer field schools (FFS) model is somewhat limited, particularly on the impact on agricultural production and income (see Davis, K. et al "Impact of Farmer Field Schools on Agricultural Productivity and Poverty in East Africa". World Development, 40, 402-413. 2012). STAP urges the proponents to adopt a more experimental and learning-centered approach to FFS to identify the model that best suits Mozambique's socio-economic and agricultural/livestock systems.

ii. FAO also may wish to consider building experimental design into the proposal, given their significant experience with farmer field schools in Africa. By doing so, FAO would help strengthen evidence on the impact of farmer field schools on agricultural and rangeland management, and the socioeconomic conditions of small-herders and farmers. For further consultation on how to include experimental design in GEF projects, FAO may wish to consult STAP's advisory document "Experimental Project Designs in the Global Environment Facility: Designing projects to create evidence and catalyze investments to secure global environmental benefits, 2011".

7. It appears that a significant proportion of small-holder farmers are women in Mozambique (http://www.wfp.org/purchase-progress/blog/mozambique-%E2%80%93-un-agencies-combine-efforts-help-farmers) If the same gender distribution characterizes the agricultural, or livestock, sector in the target areas, STAP highly encourages FAO to further delineate the proposed farmer field schools by gender. The reference cited above (Davis, K et al), also provides compelling evidence on the impact of farmer field schools on female-headed households ("At the project level, per capita agricultural (crop and livestock) income of female headed households increased by 187 % while the equivalent income for male-headed households did not change significantly at 10% level".).

8. In the full proposal, STAP recommends defining more explicitly the adaptation benefits, and identifying indicators for each one. This will help estimate and monitor the adaptation outcomes, and strengthen the additional cost reasoning.

| *STAP advisory response* | *Brief explanation of advisory response and action proposed* |
|---|---|
| **1. Consent** | 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.<br><br>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. |
| **2. Minor revision required.** | STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.<br><br>Follow up: One or more options are open to STAP and the GEF Agency: |

| | |
|---|---|
| | (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.<br>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions. |
| **3. Major revision required** | STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.<br><br>Follow-up:<br>(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.<br>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns. |