

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: March 08, 2013

Screeener: Guadalupe Duron

Panel member validation by: Anand Patwardhan; Michael Anthony Stocking
Consultant(s):

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

FULL SIZE PROJECT MULTI TRUST FUNDS

GEF PROJECT ID: 4775

PROJECT DURATION : 4

COUNTRIES : Ecuador

PROJECT TITLE: Promotion of Climate-smart Livestock Management Integrating Reversion of Land Degradation and Reduction of Desertification Risks in Vulnerable Provinces

GEF AGENCIES: FAO

OTHER EXECUTING PARTNERS: Ministry of Environment (MAE)

Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP)

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

STAP welcomes FAO's proposal "Promotion of climate-smart livestock management integrating reversion of land degradation and reduction of desertification in vulnerable provinces". STAP is pleased to see a number of statements supported with scientific references on sustainable husbandry, and greenhouse gas emissions from the livestock sector. The problem statement and the baseline initiatives also are described thoroughly and well-supported with data, and with relevant and current sources, although a more thorough characterization of climate risks and current and future vulnerability would have been desirable. Furthermore, STAP is encouraged by the multi-trust fund nature of this proposal between the GEF and the SCCF, and commends the developers for a good start on integrating various project activities to simultaneously generate joint-multiple benefits.

To strengthen further the interaction between the various components, STAP recommends addressing the points below during the full proposal development.

1. The outputs and outcomes are defined clearly, although some of the outcome indicators appear to target what will be achieved instead of what will be measured. STAP recommends for the project developers to include appropriate outcome indicators in the full proposal.

2. The project proponents indicate gender approaches will be used throughout the project intervention "an initiative that STAP supports. However, STAP recommends detailing further what gender strategies, or approaches, will be used. For example, it would be useful to detail how capacity building (component 1) will integrate gender into livestock management, and how men's and women's coping mechanisms to climate change will be mainstreamed in component 1 and 2.

3. STAP notes from the Project Framework (cf. Output 1.2 and Footnote 5) that the project intends to introduce types of innovative SL/WM practices at field level. The footnote lists "rotational systems of grazing management". While many livestock and rangeland ecologists continue to promote rotational grazing, there is a compelling and increasing body of evidence that such practices may not be superior, especially by comparison with herders' strategies (see Point 4 below). A good review paper on this is by D.D. Briske and colleagues (2008): Rotational grazing on rangelands: reconciliation of perception and experimental evidence. *Rangeland Ecological Management* 61:3-17 [<http://allenpress.com/pdf/i1551-5028-61-1-3.pdf>]. The conclusion to the paper states that continued advocacy for

rotational grazing as the only superior strategy be questioned and that evidence-based conclusions be explicitly incorporated into rangeland management. STAP agrees with this and urges the proponents of this project to follow this advice.

4. The proposal appears to assume that livestock producers have insufficient knowledge, or experience, to impart sustainable livestock management that can reduce greenhouse gas emissions (section B.1 "definition of barriers), as well as adapt to climate change in the target region. STAP suggests supporting further this statement with more explicit details, and references (published or rigorous local unpublished evidence).

5. Additionally, it would be valuable to integrate local knowledge of livestock management and climate risk throughout component 2. This could include local knowledge on sustainable natural resource management (water and land); sustainable husbandry; and, combining meteorological information with indigenous knowledge. For the latter, the project developers may wish to refer to the following paper based on participatory experiences from sub-Saharan Africa - "Integrating meteorological and indigenous knowledge based seasonal climate forecasts for the agricultural sector, IDRC. 2010 http://web.idrc.ca/uploads/user-S/12882908321CCAA_seasonal_forecasting.pdf

6. With regard to global environmental benefits, STAP recommends defining the methodology that will be used to estimate the carbon emissions from grassland management practices. For example, will the FAO's sustainable grassland management methodology referred to in B.2, and currently being tested in China, be used in this project? If so, STAP suggests adding this information under the global environmental benefits section. Similarly, STAP recommends detailing the methodologies for all of the expected benefits.

7. Furthermore, for CCA and LD activities, the tracking and monitoring of soil carbon is desirable (component 2). To control soil erosion, increase the presence of soil organic matter, reduce land degradation, and increase adaptive capacity to climate change, farmers invest in a number of practices including soil and water conservation. Additionally, FAO may wish to consider monitoring systems for husbandry that are farmer-friendly, and monitor rigorously the impacts of land use on soil quality. Providing land managers these tools can strengthen their ability to identify appropriate land management practices. To this effect, UNDP may wish to rely on the following resource that outlines the use of bio-indicators for evaluating the impacts of land management on soil quality "Rousseau, L. et al "Soil microfauna as indicators of soil quality and land use impacts in smallholder agroecosystems of western Nicaragua". Ecological Indicators 27 (2013).

8. Section B.1. provides a basic description of the vulnerability context for Ecuador, and for the target regions. STAP suggests detailing further the vulnerability description for each of the seven provinces. It also would be good to define explicitly the vulnerability criteria used to select the target regions (provinces). This information may assist with refining further the interventions, contributing towards the proposed global environmental and adaptation outcomes "mainly strengthening adaptive capacity to climate change for sustainable livestock management. These elements also may help define more comprehensively the adaptation benefits supported by the SCCF. For example, what indicators will be used to measure and monitor adaptation benefits?

9. Furthermore, STAP suggests defined explicitly the characterization of current and future vulnerability to climate change. The only place the proposal describes the way in which climate change is a source of risk for the livestock sector is in pages 11 and 12. However, this appears to be a limited description, with no quantification, and no indication of how this might change in the future. Thus, it would be useful to define further the following aspects: What climate change scenarios are appropriate? How will they be generated and evaluated? In this regard, STAP recommends defining clearly the additional cost reasoning. It also would be valuable to define what analysis has been carried out (or is proposed) to identify the consequences of future climate change? Perhaps the project developers may wish to rely on climate change tools to complement the information provided in the proposal on vulnerability and climate change projections. One source is the World Bank's climate change portal - <http://sdwebx.worldbank.org/climateportal/index.cfm>

10. It would be useful to clarify further the basis of the determination of the proposed project activities to be NAMA's. For example, was this proposed by the host country?

11. It would be valuable to define explicitly how the proposed approaches are climate smart with regards to reducing vulnerability to climate variability and change. STAP recommends referencing published documents, or rigorous unpublished documents, when defining further these approaches.

12. STAP suggests clarifying whether the interventions proposed take the form of technical assistance - there is no investment proposed. Is technical know-how the only bottleneck for adoption of particular practices?

13. STAP would be grateful if the following points also were addressed - a) Page 9, last paragraph & page 10, first paragraph: Share of agriculture & livestock in GDP appears to have declined, and yet the next sentence claims that "the primary sector has grown rapidly in the last decade". What does it mean to say that the "sector registered an annual GDP variation of 5%"? In what way is the livestock sector essential for food security?; and, b) The linkages between interventions for mitigation and for adaptation need to be defined more clearly, and it would be desirable to further substantiate the way in which mitigation interventions could contribute to resilience.

14. The table in section B.4. is very useful. STAP suggests specifying the role of each stakeholder in relation to the project components. This information is provided for the national and regional livestock associations, but not for the rest of the stakeholders.

15. The FAO may wish to refer to the Adaption Fund proposal in Ecuador "Enhancing resilience of communities to the adverse effects of climate change on food security, in Pichincha Province and the Jubones River basin". Both projects target the region of Loja. Perhaps the opportunity exists to share learning between these two proposals. The Adaptation Fund proposal can be found at this link - <http://www.adaptation-fund.org/sites/default/files/ECU%20AF%20full%20project%20document%20revised%20%20clean%2082011+annexes.pdf>

16. If the opportunity exists to share indicators for the proposed adaptation benefits and global environmental benefits, STAP encourages FAO to do so.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	<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>
2. Minor revision required.	<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"> (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions. (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	<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"> (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. (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.