

# 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: September 29, 2015

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Consultant(s):

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

**FULL SIZE PROJECT MULTI TRUST FUNDS**

**GEF PROJECT ID:** 9199

**PROJECT DURATION :** 5

**COUNTRIES :** Bhutan

**PROJECT TITLE:** Enhancing Sustainability and Climate Resilience of Forest and Agricultural Landscape and Community Livelihoods

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** Ministry of Agriculture & Forests, Gross National Happiness Commission

**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):  
**Concur**

### III. Further guidance from STAP

STAP welcomes UNDP's proposal on "Enhancing Sustainability and Climate Resilience of Forest and Agricultural Landscape and Community Livelihoods". STAP is pleased with the project's focus on integrated management of biodiversity conservation, sustainable forest management, climate change mitigation and adaption to improve livelihoods and contribute towards global environmental outcomes in Bhutan – a country recognized for its biodiversity and forest ecosystems.

To strengthen further the proposal, STAP recommends addressing the following issues during the project development:

1. The PIF provides a description of how climate change can affect biodiversity conservation, agricultural management, and livelihoods in Bhutan. In the full proposal, STAP recommends defining further the target areas, and the enabling conditions for biodiversity conservation, sustainable forest management and climate change adaptation in each site. It also recommends describing the ecology and socio-economic characteristics of each target region. This will enable the project to define policies and planning processes (responses) that are appropriate to the sites, and to the populations needs. In particular, it would be important to capture some of the unique and specific climate change risks faced in Bhutan, such as GLOFTs and changes in glacier hydrology. See, for example: Johnson, Fiifi Amoako, and Craig William Hutton. "Dependence on agriculture and ecosystem services for livelihood in Northeast India and Bhutan: vulnerability to climate change in the Tropical River Basins of the Upper Brahmaputra." *Climatic Change* 127.1 (2014): 107-121.
2. Rural communities are expected to be involved in the design and implementation of the project, which STAP supports. The three components should reflect, therefore, the integration of local knowledge with outside expert knowledge on biodiversity conservation, sustainable forest management and climate change adaptation. Traditional knowledge plays an important role in ecosystem management and in coping capacities to climate change in Bhutan (Refer to the following paper for further information on the role of hybrid knowledge in ecosystem management and climate adaptation in Asian highlands: Xu, Jianchu, and R. Edward Grumbine. "Building ecosystem resilience for climate change adaptation in the Asian highlands." *Wiley Interdisciplinary Reviews: Climate Change* 5.6 (2014): 709-718.)

3. For example, literature suggests that a drop in shifting cultivation as a result of policy enforcement has altered traditional land use practices that might have benefited biodiversity conservation, forest and ecosystem management in Bhutan. (Refer to Siebert, S., and Belsky, J.M. "Historical livelihoods and land uses as ecological disturbances and their role in enhancing biodiversity: An example from Bhutan". *Biological Conservation* 177 (2014) 82-89.) Investigating further local practices could help inform strategies to enhance climate-resilient landscape management and local livelihoods. Thus, STAP recommends for the project developers to take into account the role of traditional livelihoods in managing social-ecological systems in the development of conservation interventions, and in the design of integrated land-use planning.

4. To appropriately address the multiple and complex links between biodiversity conservation, integrated agricultural/forest management and climate change adaptation, STAP recommends applying a conceptual framework that helps identifies the drivers, trade-offs, and risks between these elements. This framework also should allow for a stakeholder/institutional analysis that enables cross-sector engagement between institutions (local and external), and individuals.

Thus, STAP encourages UNDP to define further an approach to landscape management in order to achieve the proposed global environmental outcomes on biodiversity conservation, forest conservation and climate change mitigation and adaptation. At the moment, an approach on integrated landscape management appears to be defined minimally in the proposal. By strengthening this aspect further, the proposal's scientific rationale could be reinforced. One approach that UNDP may wish to consider is the "Resilience, Adaptation Pathways and Transformation Assessment" Framework (RAPTA). The framework guides the users to apply a multi-stakeholder process to describe the system, including the key interactions between social, economic and environmental elements, to identify key driving variables, and vulnerable aspects that should be the focus of interventions and monitoring. Based on this process-level understanding of the system, RAPTA enables assessment of its resilience, and identifies whether it needs to adapt or transform. (Further information about the RAPTA can be found at: <http://www.stagef.org/the-resilience-adaptation-and-transformation-assessment-framework/>)

A second approach that can be considered is that of multifunctional landscapes, including protected areas. This approach is detailed in Dewi, S. et al. "Protected areas within multifunctional landscapes: Squeezing out intermediate land use intensities in the tropics?" *Land Use Policy* 30 (2013). The paper discusses the temporal scales of land-use change inside and outside four protected areas in the tropics, and the multifunctionality of the different landscapes. . It may be helpful to adopt an approach to project development that explicitly considers multiple objectives and multiple benefits.

5. Component 3 will focus on activities that support livelihood options for communities vulnerable to climate change. STAP proposes for UNDP to detail further how each activities will contribute to communities' adaptive capacity to climate change. It also suggests to link better this component to Bhutan's climate adaptation priorities under its National Adaptation Programme of Action (NAPA) for 2014 – 2017. Referto:<http://www.undp.org/content/bhutan/en/home/presscenter/pressreleases/2014/04/18/bhutan-to-implement-world-s-largest-climate-change-adaptation-project-under-ldc-fund.html>) NAPA priorities on agriculture and food security are described under the baseline activities, and it would be useful to detail how this project will complement those activities.

6. In component 3, STAP encourages UNDP to address the possibility that REDD+ activities may contribute to leakage. Jadin, S. et al., suggests that forest conservation policies that have successfully maintained a high forest cover in Bhutan might be have been accompanied by an increasing displacement of forest use to India. (Refer to: Jadin, S., Meyfroidt, P., Lambin, E. "Forest protection and economic development by offshoring wood extraction: Bhutan's clean development path". *Regional Environmental Change*, 2015. Therefore, STAP suggests that the proponent consider further the potential for redistribution of the project's impacts on the environment, and identify measures that could reduce this risk.

7. In component 1 there is no detail on the methods to be applied to strengthen the biological corridor network, to monitor extent of forest cover, and to identify the vegetation types most vulnerable to climate change. Will this involve developing capacity in GIS, downscaling climate projections, and forest modelling? Will it involve remote sensing, and/or on-gerund forest inventory? In order to determine the resources required, and to plan this component, these aspects will need to be clarified in project development.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Concur</b>	In cases where STAP is satisfied with the scientific and technical quality of the proposal, a simple

	<p>“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.</p>
<p><b>2. Minor issues to be considered during project design</b></p>	<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> <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><b>3. Major issues to be considered during project design</b></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>