

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: @@@@ @@, @@@@
Screener: Sarah Lebel
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Consultant(s):

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

FULL-SIZED PROJECT	LEAST DEVELOPED COUNTRIES FUND
GEF PROJECT ID:	8032
PROJECT DURATION:	5
COUNTRIES:	Burkina Faso
PROJECT TITLE:	Promoting Index-based Weather Insurance for Small Holder Farmers in Burkina Faso
GEF AGENCIES:	UNDP
OTHER EXECUTING PARTNERS:	Ministry of Agriculture
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 issues to be considered during project design

III. Further guidance from STAP

STAP welcomes the UNDP proposal "Promoting index-based weather insurance for small holder farmers in Burkina Faso". The project aims to reduce the vulnerability of agricultural livelihoods to the impacts of climate change, by piloting weather-based insurance to inform future adaptation. STAP found the PIF to be generally scientifically and technically sound, and has a number of minor concerns:

1. The use of weather information is extremely limited amongst smallholder farmers in Burkina Faso, many people consider forecasts heard on the radio to be unreliable. What measures will be put in place to better inform farmers about climate risks, the nature of climate change, and the role of index-based weather insurance? In general, the impact of IBWI has been positive, where there has been uptake of the products (Carter et al, 2014). The key is to ensure that products are understandable.
2. One of the big challenges of IBWI is the correct pricing of products. How price be adjusted to meet the needs of the most vulnerable, such as women farmers?
3. Another key aspect of IBWI is basis risk, because of a mismatch between weather monitoring stations and networks, and the actual conditions at farm. This is likely to be a bigger problem in Burkina Faso where the weather network is often weak, and unreliable. IBWI is very data intensive. How will this be addressed by the project? Failure to deal with this would mean severe challenges in implementing fair and sustainable pricing of insurance products.
4. In the absence of adequate terrestrial monitoring networks, satellite-based products may be an option that could be assessed (see: Black, Emily, Elena Tarnavsky, Ross Maidment, Helen Greatrex, Agrotosh Mookerjee, Tristan Quaife, and Matthew Brown. "The use of remotely sensed rainfall for managing drought risk: a case study of weather index insurance in Zambia." Remote Sensing 8, no. 4 (2016): 342.)
5. Women form a large part of the agricultural labour force in Burkina Faso, but this is not sufficiently considered in this project. A large number of households are polygamous, with a very limited number of women headed households. Female farmers are therefore often organized as groups and farm their own plots of land, but lack access to basic agricultural inputs such as manure, because men are usually

responsible for rearing livestock. How will IBWI address gender differences in agricultural production roles, and prevent increasing the vulnerability of women to the effects of climate change?

6. The project aims to identify insurance companies for training. Are there any examples where IBWI schemes have been implemented successfully for smallholder farmers which could help inform the training process?

7. Ensuring deeper penetration into rural areas may prove challenging. It would be important to explore the role of information technology, including cell phones, to be used as a tool to improve the reach of insurance products.

8. There is a rich literature on experience with index weather insurance (Tadesse et al, 2015) and it would be valuable to reflect the lessons in the project design. Finally, given the importance of these interventions as an adaptation to climate change, the potential of IBWI in the context of future climate scenarios may be considered (Siebert, 2016) .

Carter, Michael, Alain de Janvry, Elisabeth Sadoulet, and Alexander Sarris. "Index-based weather insurance for developing countries: A review of evidence and a set of propositions for up-scaling." Development Policies Working Paper 111 (2014).

Tadesse, Million A., Bekele A. Shiferaw, and Olaf Erenstein. "Weather index insurance for managing drought risk in smallholder agriculture: lessons and policy implications for sub-Saharan Africa." Agricultural and Food Economics 3.1 (2015): 26.

Siebert, Asher. "Analysis of the future potential of index insurance in the West African Sahel using CMIP5 GCM results." Climatic Change 134, no. 1-2 (2016): 15-28.

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