

# 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 28, 2014

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Panel member validation by: Anand Patwardhan

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

**FULL SIZE PROJECT SPECIAL CLIMATE CHANGE FUND**

**GEF PROJECT ID:** 5687

**PROJECT DURATION :** 5

**COUNTRIES :** Belize

**PROJECT TITLE:** Energy Resilience for Climate Adaptation

**GEF AGENCIES:** World Bank

**OTHER EXECUTING PARTNERS:** Ministry of Energy, Science and Technology, and Public Utilities (MESTPU)

**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 welcomes the World Bank proposal "Energy Resilience for Climate Adaptation Project" for Belize. The proposal aims to enhance resilience of the energy system to adverse weather and climate change impacts. The PIF provides a general overview of the vulnerability of Belize to climate variability and change, and provides generic information on the potential vulnerability of energy systems to changing climatic conditions. However, the PIF does not provide specific information on the vulnerability of the Belize energy system, including information on impacts from historic extreme weather and climate events. It would also be helpful to characterize more explicitly the difference between chronic under-capacity and energy system vulnerability due to climate risks. The project description does not provide sufficient information to understand the specific outputs that will be implemented, the activities that will be undertaken to achieve those outputs, or how they would be monitored and evaluated. The main output for Component 1 appears to be a vulnerability and adaptation assessment of the energy sector, from which some unspecified activities would be undertaken in Component 2. The PCN/PID do not adequately reflect some of the SCCF requirements, including identification of the adaptation benefits, sustainability, and a description of ongoing and planned projects that form part of the baseline.

Although the STAP recommendation is for "minor revision", given the importance of climate resilience for Belize and the substantial comments and observations of STAP as mentioned below in the screen, STAP strongly recommends that they be fully addressed during the course of project development, and assessed prior to CEO endorsement.

1. The STAP recommends including a description of the current vulnerability of the energy system to climate variability. Relevant information should be included on, for example, the extent of power outages and other challenges to managing the energy system during extreme weather and climate events. Such information would strengthen the statements on the magnitude of possible future vulnerability to climate variability and change.

2. Further, STAP recommends summarizing current energy system plans for managing extreme events and changing weather patterns. It would be helpful to more fully describe the way in which drought and changing rainfall patterns could affect hydropower and any other challenges that climate variability has presented. Including map(s) of current vulnerability to extreme events and storm surges could be used as a baseline against which future risks could be assessed.

3. It would be helpful to have a short annex summarizing not just the goals of the National Energy Plan, but also how the Government of Belize intends to achieve those goals and over what time period, and how this project would relate to the plan. In this context, it would be helpful to build on the base of existing assessments of the energy sector in Belize, such as the 2011 assessment by OAS (<http://www.reeep.org/sites/default/files/Toward%20a%20national%20energy%20policy-%20Assesment%20of%20Belize.pdf>)
4. It would be useful, during the course of project development to consider the trends and projections in extreme weather and climate events, as assessed in the IPCC Special Report on Managing the Risks of Extreme Weather and Climate Events to Advance Climate Change Adaptation (SREX) and the Working Group I contribution to the IPCC 5th Assessment Report..
5. The PCN/PID mentions that the available climate information is inadequate for well-informed risk-based decisions. It would be helpful to include what information is available, why it is inadequate, and what needs to be done to ensure appropriate and reliable information would be available.
6. As noted above, Component 2 provides examples of some possible activities without relating those to the needs of the Government of Belize to adapt to the risks of climate change. STAP strongly recommends providing specific information on what outputs would be accomplished, including activities for doing so, and appropriate monitoring and evaluation plans. The criteria also should be provided for how pilot activities and investments will be selected. How will response and recovery capacity be strengthened (and measured)?
7. STAP recommends providing specific information on how gender will be taken into consideration in project implementation.
8. STAP also recommends including information on the stakeholders who would be engaged in project implementation. Possible stakeholders include disaster risk management agencies, and administrators for hospitals, health care facilities, and other critical infrastructure. In this context, it would be important to build on relevant existing institutions such as the CCCCC (based in Belize).
9. Other issues include:
  - a. A list of acronyms would be helpful.
  - b. Including references for statements of fact would be helpful, such as trends in hurricane intensity, etc.
  - c. The PIF has multiple mentions of ongoing litigation and states that losing the lawsuit would impact electricity distribution companies, without outlining the litigation or discussing how a loss could affect the proposed project.

<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:            (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.</p>
<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:            (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.</p>

