

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)

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Screeener: Lev Neretin

Panel member validation by: Ralph E. Sims
Consultant(s):

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

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 5387

PROJECT DURATION : 4

COUNTRIES : Mexico

PROJECT TITLE: Mexico Sustainable Energy Technology Development

GEF AGENCIES: World Bank

OTHER EXECUTING PARTNERS: Secretaria de Energí-a (SENER) and Consejo Nacional de Ciencia y Tecnología-a (CONACYT)

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

1. The project aims to provide advisory services and financial support to set up and operate Sustainable Energy Fund (SEF) in Mexico as a key vehicle to "spur development of new and innovative clean energy technologies". As a financial vehicle for supporting R&D and TT, SEF could be an important driver for innovation and address financial barriers for promotion of RE technologies. Without wider legal, institutional and administrative reforms of the entire R&D framework for clean energy in the country, the entire sustainability of project efforts could be in jeopardy.

2. The project is based around supporting the SEF and its objectives. It seems it has a revenue around \$100M a year from a levy but only relatively low investment in R&D projects is made (\$18.5M in 2009 and \$20.5 M in 2010) due to poor quality projects being offered. Improving the quality of research proposals through collaborative initiatives will be of national benefit and this is one area GEF funding can assist with. Incidentally, what was the situation with SEF funding in 2011 and 2012 - and what has happened to all the unspent funds to date? There should be far more funds available than the sum being sought from GEF!

3. The following recommendations/questions should be addressed to strengthen project design:

- The need to supplement clean technologies needs assessment, using in-depth analysis of the entire innovation chain framework in Mexico. Results of this assessment should be fed into recommendations for follow-up reforms in legal, institutional and administrative systems. As a result, financing priorities and modalities for the SEF could be revised or blended with other instruments to provide support beyond development of specific technologies.

- The financing mechanism as proposed has been used in many OECD and non-OECD countries and a lot of lessons have been learned. Some examples are EU Technology Platforms (http://ec.europa.eu/energy/renewables/platforms_en.htm, http://www.cordis.europa.eu/technology-platforms/individual_en.html and their impact assessment http://www.cordis.europa.eu/technology-platforms/monitoring_en.html); multiple channels supporting technology innovation in the USA including NSF Innovation Corps (http://www.nsf.gov/news/special_reports/i-corps/index.jsp); TT experience in China (<http://www.sciencedirect.com/science/article/pii/S0301421510000315>), UNIDO Global Cleantech Program for SMEs (https://www.thegef.org/gef/sites/thegef.org/files/publication/GEF-UNIDO_GlobalCleantech.pdf); technology parks and centers of innovation in Germany (<http://www.germaninnovation.org/>) to name just a few. It is highly recommended that during project preparation, global experiences in setting up, operating and assessing impacts of

technology funding and transfer mechanisms are evaluated and used when developing recommendations for Mexican conditions and SEF.

- While the project addresses clean technology development and deployment in Mexico using primarily national expertise, the PID is silent about potential South-South, North-South and triangular TT and its role in supporting cleantech. It does not state the SEF cannot fund international collaboration. If Mexico wants to get "quick runs on the board" it would be wise to link up with various countries with a good track record of R&D in clean energy technologies rather than aim to work in isolation. In this regard, STAP recommends considering becoming an active members of several of the IEA Implementing Agreements as an initial step to take. Mexico is an IEA member country and has engaged in various activities in the past. It is not clear, however, if this has been done with any degree of government support - so this should surely be an early strategy not mentioned in the PID. GEF funding might assist in this endeavor - not only with IEA activities but also with various other organizations. It is necessary to consider these avenues in the context of Mexican SEF modality.
- It is realised the SEF cannot directly support the private sector - so this is a role for GEF funding through the pilot and demonstration projects. To gain momentum in innovative clean energy, engaging the private sector is critical. So, since there is funding available, should the government not also revisit the SEF and amend the rules accordingly?
- R&D investment in Mexico is relatively small as a portion of GDP (0.25% public and 0.18% private) compared with several emerging economies such as any of the BRICS (1-2%) or in leading OECD countries (3-4%). Proposed project could play an important role in facilitating wider national dialogue aimed at the increased investments into R&D in Mexico.
- Even a rough assessment of GHG emission reductions resulting is difficult for a project such as this - but paragraph states 9 Mt whereas B Project Framework table gives 12 Mt. Which number is correct in this early assessment and how measurements GEBs will be supported and monitored? What indicators will be used to measure success (or otherwise) of the project? STAP recommends project proponents to develop robust MRV system identified in the proposal.

<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> <p>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</p> <p>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p>
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> <p>(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.</p> <p>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p>