

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: May 03, 2010

Screeener: Lev Neretin

Panel member validation by: Nijavalli H. Ravindranath
Consultant(s):

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

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 4163

PROJECT DURATION : 5

COUNTRIES : Namibia

PROJECT TITLE: Concentrating Solar Power Technology Transfer for Electricity Generation in Namibia (NAM CSP TT)

GEF AGENCIES: UNDP

OTHER EXECUTING PARTNERS: Renewable Energy and Energy Efficiency Institute (REEEI), Ministry on Mines and Energy (MME)

GEF FOCAL AREA: Climate Change

GEF-4 STRATEGIC PROGRAMS: CC-3;

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): **Consent**

III. Further guidance from STAP

STAP expresses its consent to this proposal from Namibia. In the next decade, the concentrating solar power (CSP) industry is expected to grow substantially with positive trends in both, developing and developed countries. This technology transfer proposal is a timely effort in this respect. Project emphasis on the removal of multiple barriers is commendable. The following issues deserve closer scrutiny/development before the CEO endorsement:

1. Technology transfer and policy, regulatory framework and business model development: This project is indeed a technology transfer project and the promotion of market approaches for the large-scale spread of CSP technology may be premature. It is difficult to visualise that at the end of the project a single (5MW) CSP unit will lead to a thriving CSP market in Namibia. Project emphasizes correctly support for enabling environment (capacity building, market policy framework and financial incentives) complemented by the Component 4 aimed at pre-commercial demonstration plant. One demonstration plant will be insufficient to transform the market and project proponents are advised to demonstrate/build a robust follow-up framework for CSP market development after the project completion. STAP advises to develop a comprehensive staged action plan for successful technology transfer chain for CSP in Namibia (South Africa serves as a good example in this respect) including, inter alia, grid connectivity issues. This will assure sustainability of project efforts in the long-term after demonstration and initial deployment are completed.
2. Policy instruments: There are three major policy instruments used in promoting CSP: mandatory purchases of renewable energy (feed-in tariffs), mandatory standards requiring minimum share of power coming from renewables, and long-term government contracting for renewable energy projects. CSP development in Namibia cannot be considered in isolation from the overall development of renewable energy markets. PIF is ambiguous in describing the level of national commitment to supporting renewable energy projects and, specifically, the type of envisaged enabling policy environment. This national support is required and if insufficient, should be strengthened by the project.
3. Financial barriers are the most important in developing CSP market due to high investment costs. Project proposes a number of interventions to address this barrier. These should be tested against long-term renewable energy targets and continuity after GEF support ceased. The importance of financial viability of the investment in CSP technology should be recognized by strengthening the project monitoring system of CSP technical performance and investment returns.
4. Local manufacturing: There is an intention in the project to develop national market for CSP components to be produced at the local enterprises. What support will the project provide for local manufacturing of CSP components from conventional materials?

5. Water consumption is a significant factor in CSP expansion. How are climate risks on water availability considered in scaling-up CSP markets in Namibia? Project should provide technical assistance to the country to account properly for water availability risks associated with climate change.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	STAP acknowledges that on scientific/technical grounds the concept has merit. However, STAP may state its views on the concept emphasising any issues that could be improved and the proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
2. Minor revision required.	STAP has identified specific scientific/technical suggestions or opportunities that should be discussed with the proponent as early as possible during development of the project brief. One or more options that remain open to STAP include: <ul style="list-style-type: none"> (i) Opening a dialogue between STAP and the proponent to clarify issues (ii) Setting a review point during early stage project development and agreeing 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 revision required	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical omissions in the concept. If STAP provides this advisory response, a full explanation would also be provided. Normally, a STAP approved review will be mandatory prior to submission of the project brief for CEO endorsement. 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.