

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: October 17, 2012

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: 4626

PROJECT DURATION : 3

COUNTRIES : Djibouti

PROJECT TITLE: Geothermal Power Generation Program

GEF AGENCIES: World Bank

OTHER EXECUTING PARTNERS:

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

The project aims to assess the commercial viability of the geothermal resources in Lac Assal in Djibouti. The PIF does acknowledge that the project is a risky investment, mitigated through the use of GEF funds. However, the bulk of project funding does not go into capacity building and other foundational activities that may assist in reducing risks, but directly into exploratory drilling by a Drilling Services Company.

STAP proposes that the following issues be addressed during the next phase of project preparation:

1. Resource and technology evaluation: This project is characterized by high risks of striking the gas resource and its suitability for conversion. The project is also characterized by high risks associated with exploration, market demand for electricity produced, technical and institutional capacity, and lack of regulatory mechanisms. These risks have to be more seriously analyzed and mitigation measures developed. The cost implications of the mitigation measures also have to be addressed.
2. Installed capacity and cost: What is the proposed installed capacity? What is the likely cost of electricity generation from this source, especially since the cost of imported electricity from Ethiopia is likely to be low? Even if high quality geothermal fluids are found, the cost of extraction, transportation and conversion to electricity is likely to be high and thus needs to be analyzed.
3. The proposed generation of global environmental benefits needs to be explained in greater detail. The GEF will support the drilling of four production wells as well as auxiliary technical assistance components that include management support and feasibility studies. The proposal seems to reflect a typical World Bank investment support program on a large scale. Direct GEBs of the project are measured in \$16 million in offsets of direct investment "that would otherwise be made by the IPP developer in the power plant". Such definition of GEBs to be generated by the project, along with the project's incremental reasoning, need to be explained in greater detail.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	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. 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.
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>