

# 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 26, 2013

Screener: 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:** 5087

**PROJECT DURATION :** 5

**COUNTRIES :** India

**PROJECT TITLE:** Organic Waste Streams for Industrial Renewable Energy Applications in India

**GEF AGENCIES:** UNIDO

**OTHER EXECUTING PARTNERS:** MNRE , MSME

**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): **Consent**

### III. Further guidance from STAP

This 5 year project seeks to improve organic wastes-to-energy conversion projects in India for SMEs using biochemical processes. The aim is to encourage development of 7 to 10 demonstration plants up to 2 MW(th) each in order to encourage replication by major SME industries. Work has been undertaken for larger industries with many CDM projects of 6-8 MW scale in place. Hence the SME target of this proposal and conversion of their wastes to process heat for use on-site.

Targetting banks and financial institutions makes sense since many small waste-to-heat plants considered as higher risk projects.

STAP has the following recommendations for full project preparation:

1. Accumulating wastes from several neighboring companies and developing a small-scale district heating system could be warranted, given the benefits of economies of scale. Although alluded to, this option appears not to have been thought through in detail not the cost of heat distribution evaluated. Matching heat demand with reliable organic waste supplies, both daily and seasonally, also needs consideration along with storage options if necessary.
2. The estimated 1.5 Mt CO<sub>2</sub>-eq avoided equates to around \$10 /t CO<sub>2</sub>-eq but offset against this is the avoided costs of waste treatment and disposal by landfill or other methods. It would be desirable if project components assess the cost-effectiveness of this proposal.
3. No timelines are given for the 5 year period, including for assessing whether plants are still functioning according to design specifications some years after completion. Robust M&E system for this project is strongly recommended.

| <i>STAP advisory response</i>      | <i>Brief explanation of advisory response and action proposed</i>  |
|------------------------------------|--|
| <b>1. Consent</b>                  | 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.<br><br>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. |
| <b>2. Minor revision required.</b> | STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.   |

|  |  |
|--|--|
|  | <p>Follow up: One or more options are open to STAP and the GEF Agency:</p> <ul style="list-style-type: none"> <li>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</li> <li>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</li> </ul>   |
| <p><b>3. Major revision required</b></p> | <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> <ul style="list-style-type: none"> <li>(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.</li> <li>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</li> </ul> |