

# 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: April 29, 2012

Screener: 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:** 4377

**PROJECT DURATION :** 4

**COUNTRIES :** Ukraine

**PROJECT TITLE:** Development and Commercialization of Bioenergy Technologies

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** Ministry of Environmental Protection, Bioenergy SMEs, Regional Administrations

**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 at removal of barriers to the development and commercial utilization of bioenergy (BE) resources in municipalities in Ukraine (Uk). STAP recommends minor revision, concerning the points raised below.

1. Technology choice: Biomass energy potential in Uk is quoted from a study in 2001. Which of these technologies or biomass resources are economically viable? Are the technologies tested in Uk? What is the source of technologies? Will the project involve technology transfer? STAP strongly recommends developing criteria for selecting BE technology package for the municipal sector. The criteria could include biomass resource potential, energy potential of biomass, investment and operational costs, robustness of the technology, etc. In addition, the scientific and technical rationale for focusing on the municipal sector for utilizing the BE resources is not clear in the PIF.
2. Source of biomass: What is the source of biomass resources? What is the opportunity cost of the crop residues and other feedstocks? Will dedicated energy crops be grown? A proper analysis of the biomass resource, its sustainable supply and economics of biomass supply is necessary. Economic feasibility of transporting low density crop residues and even wood from different rural locations to boilers in urban areas needs to be assessed.
3. End use of BE: The end use of the BE is not clear. What are the energy needs that will be met from BE in the municipal sector; cooking, electricity generation, industrial process heat?
4. Barrier analysis: The whole project is focused on removal of barriers. STAP strongly recommends systematic assessment of the barriers and ranking of the barriers so that targeted interventions could be included in the project to address them.
5. Risks: Risks related to financial viability of the technologies and sustained supply of biomass resource needs to be addressed.
6. Research: Will the project involve research concerning the technologies? Are local research institutions capable of delivering the technology designs?
7. Economic analysis of the interventions: If IPPs are to be involved, a thorough economic analysis is required to ensure an attractive payback period and sustained biomass feedstock supply.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	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.
<b>2. Minor revision required.</b>	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"> <li>(i) Opening a dialogue between STAP and the proponent to clarify issues</li> <li>(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</li> </ul> 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.
<b>3. Major revision required</b>	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.