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 20, 2011 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: 4490
PROJECT DURATION : 2
COUNTRIES : Nigeria
PROJECT TITLE: Small-scale Associated Gas Utilization
GEF AGENCIES: World Bank
OTHER EXECUTING PARTNERS: The Rivers State Government
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

This proposed World Bank project aims to assist the Government of Nigeria in the development of small-scale flaring gas utilization for energy needs of rural communities. GEF funds are sought to assess the technical and economic viability of flaring gas utilization including use of captured gas for generating energy for the electricity grid.

While STAP recognizes the global importance of promoting the efficient use of flaring gas in Nigeria that would have multiple benefits beyond GHG reduction (mitigating black carbon emissions, reduced energy poverty, social-economic benefits of clean energy production) there are several important questions and challenges that should be addressed in project preparation before CEO endorsement:

1. Gas flaring reduction projects are usually successful examples (http://cdmpipeline.org/cdm-projects-type.htm) submitted under Clean Development Mechanism (CDM) and there are a number of approved methodologies along with accumulated experience. The World Bank led Global Gas Flaring Reduction Public Private Partnership (GGFR) was established to assist governments and private entities in building CDM capacity for gas flaring projects in oil and gas sectors, including in Nigeria. It seems that the submitted project emulates GGFR efforts without justifying a specific incremental role of GEF funding. If GEF and CDM resources are to be blended, the complementarity or synergies have to be explained and utilized (Ref. Beyond the sum of its parts: Combining financial instruments for impact and efficiency, June 2010. Issues Brief #3, World Bank). Lessons learned while working on gas flaring project in Nigeria under this initiative should be analyzed and accounted for in the project design.

2. The project is lacking a GHG baseline and does not provide information about how GHGs and co-benefits of the project will be assessed. A clearly defined baseline and methodology to assess GHG benefits of the project needs to be presented.

3. Associated gas mitigation projects usually eliminate and/or reduce gas flaring and venting at the production site. Processing, transport and distribution of the associated gas are also sources of GHG emissions. If not properly accounted for, the cumulative impact of these projects can actually lead to increased GHG emissions. How will these life cycle considerations be accounted for (calculated) in project design and implementation?

4. The project emphasizes investments in small-scale utilization of the associated gas. Nigeria is facing a number of critical policy, institutional, capacity building, technological, financial and other barriers in utilizing associate gas in oil and gas sectors (e.g. ref. Nigeria: Carbon Credit Development for Flare Reduction Projects, ICF Consulting, 2006). Without removing these higher-level barriers, long-term sustainability of project interventions can be compromised.

Detailed barrier analysis for the sector and gas flaring particularly is recommended before CEO ensorsement. Project's focus on small-scale gas utilization has to be justified in the context of the overall baseline situation of gas flaring mitigation efforts in Nigeria.

5. It is commendable to note that the project incorporates the development of small scale facilities to provide energy to the rural population. However, it is very important to consider the costs and loss of energy in transmission and distribution, especially if the demand centers are located away from the power generation utility. There is a need for consideration of the demand for electricity in locations close to power generation systems, given the costs involved and the GHG emissions resulting from the losses in transmission and distribution. If there is a surplus of electricity due to low local demands, what will be the strategy for feeding surplus electricity to the regional or national grid?

STAP advisory response	*Brief explanation of advisory response and action proposed*
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: (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.