

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

Screeners: 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: 4840

PROJECT DURATION : 4

COUNTRIES : Sierra Leone

PROJECT TITLE: Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement

GEF AGENCIES: UNDP

OTHER EXECUTING PARTNERS: Ministry of Energy and Water Resources; Environment Protection Agency - Sierra Leone (EPA-SL)

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 promote improved and more efficient use of biomass energy resources in Sierra Leone. The PIF contains standardized components, outcomes and outputs which are common to most of the PIFs reviewed in this domain in the current work program. Many of them are very generic, and not specifically targeted to the country. Even the barriers listed are very general, applicable to any country and any technology. The PIF as currently written does not demonstrate that the proponent has a clear understanding of local conditions and how these may affect expected outcomes and proposed approaches/technologies.

1. The meaning of sustainable charcoal production kilns is not clearly defined. Does it involve sustainable production of woody biomass and efficient conversion to charcoal? Are efficient charcoal designs already available? Have they been field tested? What is the efficiency of traditional charcoal kilns? What is the proposed improved efficiency of the new designs? Will the stoves have to be developed through R&D? What is the size and capacity of the kilns? Charcoal and improved cookstoves have been disseminated in many African countries and the lessons learnt from these countries should be incorporated into this project.

2. What is the source of wood for charcoal production? Is it sustainably harvested? It might not be the case. Participation of all stakeholders, particularly, local communities in assuring sustainability of supply-side interventions (sustainable forest management) is critical. There is a need to analyze the GHG emissions due to non-sustainable extraction of fuelwood for charcoal production.

3. Decentralized and unorganized nature of kilns: The charcoal kilns are widely distributed - how will these loosely organized units be encouraged to adopt the technologies proposed? How to enforce standards, regulations, policies, etc. on such unorganized units? What is the incentive for the charcoal kiln owners to shift to efficient kilns? How building capacity in decision-makers in the capital city would promote adoption of efficient kilns by these unorganized kilns?

4. The project addresses critically important globally (and in Sierra Leone's case) issues of sustainable energy access for domestic use through promotion of EE production of charcoal and improved cookstoves. Although not the first, this is an important project for global learning. Recent World Bank reviews of its projects aimed at improved domestic cooking and heating through fuelwood management or improved stoves (Ekouevi, Koffi and Voravate Tuntivate. 2012. Household Energy Access for Cooking and Heating: Lessons Learned and the Way Forward. Washington, D.C.: World Bank. DOI: 10.1596/978-0-8213-9604-9.) lists several important lessons of relevance to this project: a) holistic

approach to household energy issues is necessary; (b) public awareness campaigns are prerequisites for successful interventions; (b) local participation is fundamental; (d) consumer fuel subsidies are not a good way of helping the poor; (e) both market-based and public support are relevant in the commercialization of improved stoves; (f) the needs and preferences of stoves users should be given priority; (g) durability of improved stoves is important for their successful dissemination; and (h) with microfinance, the poor can gradually afford an improved stove. In light of those lessons, the following issues should be strengthened/developed further during project preparation.

5. Project has an appropriate focus promoting PPP in the commercialization of ICS. Public funds are essential for R&D, marketing, quality control, training, certification, maintenance, along with monitoring and evaluation. These factors are mentioned in the proposal, with the exception of monitoring and evaluation. Effectiveness of project interventions should be monitored and lessons learned systematically. Certain funds should be allocated for measuring the effectiveness of project activities.

6. Project proponents could consider embedding quasi-experimental project design into this (or similar) initiatives. STAP guidance in this respect could be useful (<http://www.stagef.org/experimental-project-designs>). This would greatly help to generate empirical evidence for success of these interventions.

7. During project implementation, particular focus should be given to groups demonstrating higher "affinity" to improved cooking stoves, and should become target groups for demonstrations to assure replicability in the longer-term.

8. Project proponents are advised to explore the use of micro-financing schemes in supporting wider adoption of ICSs. The proposed "Money Box" initiative could be strengthened by adding/considering the use of microfinance as a part of development support for poor communities in their traditional activities. This could play a catalytic effect on the wider adoption of ICS.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	<p>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.</p> <p>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.</p>
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> <ul style="list-style-type: none"> (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions. (ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.
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> <ul style="list-style-type: none"> (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. (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.