

# 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 08, 2014

Screeners: Virginia Gorsevski

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:** 5719

**PROJECT DURATION :** 4

**COUNTRIES :** Angola

**PROJECT TITLE:** Promotion of Sustainable Charcoal in Angola through a Value Chain Approach

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** Lead implementing partner: Ministry of the Environment (MINAMB)

Other partners:

IDF (Instituto de Desenvolvimento Florestal de Angola) – MINADER (Ministry of Agriculture and Rural Development/Minist rio da Agricultura e Desenvolvimento Rural de Angola); CETAC (Centro de Ecologia Tropical e Altera es Clim ticas); Ministry of Economy - The National Institute of Support to Micro, Small and Medium Enterprises (INAPEM); Ministry of Energy and Water (MINEA); Ministry of Commerce; Ministry of Industry; Ministry of Family (Minist rio da Familia e Promo o da Mulher); Provincial Governments of Huambo, Benguela, Kwanza-Sul and/or Huila (TBD).

NGOs: ADRA, CODESPA, ADPP and COSPE

**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

1. Overall this is well prepared report. The project aims to reduce the use of unsustainably produced charcoal by low-carbon interventions in the charcoal production value chain. Biomass feedstock production and charcoal sales are to be assessed and sustainable biomass production will be promoted to avoid deforestation. Training will be provided. Efficient charcoal kilns will be identified and deployed (involving around one third the share of the total project grant and over half the co-financing). Briquetting technologies are to be deployed. A "green" charcoal certification scheme is proposed. Surveying consumers towards the end of the project is commendable.
2. The problem is that much of the biomass is produced from unsustainable sources; the conversion of biomass to charcoal in earth mounds is currently an inefficient process; charcoal producers are unlicensed; physical losses occur during transport and handling; and inefficient cook stoves are used.
3. The barriers to making improvements to the current value chain are clearly outlined. The baseline projects are clearly outlined. The proposed interventions in the value chain have been well thought through.
4. The risks are well defined.
5. Comments on the four project components follow:
  - 1) Biomass data collection:
    - a. The outputs appear achievable within the time frame and the need for MRV is recognised.

b. What is not clear is how the objectives will be undertaken. For example, who will undertake the surveys, who will be the respondents, how will a sample be selected.

2) Dissemination of efficient charcoal kilns:

- a. The concept is fine but again it is not clear on how this can be achieved in practice.
- b. It is not clear how the 60 associations will be "selected" or the criteria to be used. It is also assumed the selection of the technologies has been based on careful assessment but it is not clear why there are 200 Casamance kilns and 60 retorts. Since the retorts are more efficient why not use these alone?
- c. Has the technical performance of each of these kilns been measured in the field? If so, what were the results? Will this help determine which type is selected and under what conditions? The efficiency of the Casamance kiln depends on its construction – particularly how well the base was constructed (Nturanabo, F. et al. Performance Appraisal of the Casamance Kiln as a Replacement to the Traditional Charcoal Kilns in Uganda. Second International Conference on Advances in Engineering and Technology. Retrieved from: <http://news.mak.ac.ug/documents/Makfiles/aet2011/Nturanabo.pdf>
- d. Who will manufacture the kilns? Where will they come from? If manufactured locally (and could use locally available materials as a more affordable option) are the materials and 'know how' available?
- e. Presumably it is important that people see that the kilns are successful from the beginning in order to facilitate widespread acceptance. If they break down, is there a maintenance plan?

3) Dissemination of briquetting machines:

- a. The criteria to be used for selection of entrepreneurs will need careful consideration.
- b. The choice of briquetting machines to be disseminated will be analysed. Will this be after various testing regimes of the range of designs? What features will be compared? Who will make the final selection decision?

4) Certification and marketing scheme:

- a. The consumer market survey at the end is a useful approach but who will conduct it? It will require market research expertise. Would it be useful to conduct a "before and after" survey of the same respondents? How many will be needed to be a statistically representative sample.
- b. The careful approach to the certification scheme based on the Nambian charcoal example is well warranted.

Finally, the calculation of CO2 emissions avoided is complex since it involves land use change. The calculations of direct emission CO2eq savings from the use of kilns appear sound given the lack of data available and uncertainties. Assumptions made are erring on the conservative side which is good. Further refinement will be necessary during the PPG phase as is proposed. Will the kilns have any impact on black carbon and if so, will it be incorporated into the GHG emission reduction numbers?

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	<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>
<b>2. Minor revision required.</b>	<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:            (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.</p>
<b>3. Major revision required</b>	<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:            (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.</p>

