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: @@@@ @@, @@@@ Screener: Thomas Hammond

Panel member validation by: Michael Anthony Stocking; Paul Ferraro
Consultant(s): Brian Huntley

I. PIF Information *(Copied from the PIF)*
FULL SIZE PROJECT GEF TRUST FUND
GEF PROJECT ID: 4639
PROJECT DURATION : 5
COUNTRIES : Zambia
PROJECT TITLE: Strengthening Management Effectiveness and Generating Multiple Environmental Benefits within and around Protected Areas in Zambia
GEF AGENCIES: UNDP
OTHER EXECUTING PARTNERS: Ministry of Tourism, Environment and Natural Resources; Zambia Wildlife Authority; Forestry Department; Ministry of Energy and Water Development
GEF FOCAL AREA: Multi Focal Area

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

1. Overall Recommendation

STAP welcomes this initiative and is supportive of ongoing efforts to further improve the management effectiveness of the protected area system in Zambia. The Panel has also strongly encouraged the development of GEF multi-focal area initiatives in the natural resource management sector, and this project is exemplary of what STAP sees as a positive trend in this area.

Descriptions of the project baseline and threats to global environmental benefits (biodiversity) are comprehensive, as are descriptions of components 1 and 3 of the project. Component 3 of the project is well developed, and STAP encourages that the experience and lessons generated from this approach be shared with similar planned or ongoing projects in the Southern Africa region. It is noted and appreciated that empirical data will be collected on the carbon benefits and cost-effectiveness of this technology over the life of the project.

2. Observations and comments

STAP wishes to point out a number of issues which may further strengthen this initiative. The PIF points out that pilot SLM and conservation agriculture activities will be developed under Component 2 of this project, including community woodlot activities to support Component 3. Community woodlots using fast-growing trees have not been an unmitigated success in Africa, and they raise a number of social, economic and biophysical issues that will need to be resolved well prior to implementation. For example, the specific nature of SLM and sustainable agriculture activities have not been described , nor is it clear how these activities will be pursued (e.g. through agricultural extension or support to improved land use planning). Will this project contribute to improving the efficiency of agricultural activities similar to expected efficiency improvements in the consumption of forest resources? How will the woodlots be managed; who will benefit; who will provide labor â€“ in short, what will be the social organization? Further, woodlot tree species can become invasive and can damage the local environment. The use of Eucalyptus spp. is controversial and has been shown in some places to lower biodiversity as well as accelerate soil erosion.

The Panel urges that additional detail on the nature and extent of Component 2 activities be provided, and how risks of introducing new ventures and technologies will be tracked and mitigated. Will the project proponents be able to provide evidence during the course of implementation that nothing will change in the behaviors of charcoal producers with

improved technologies and production levels? This is a core assumption when estimating gains relevant to avoided GHG emissions. It is interesting to note that there is no mention of the Uganda project (NO. 4644) also submitted by UNDP in this work program which is promoting similar technology and activities. STAP urges active knowledge sharing between these projects.

Regarding expected global benefits from avoided emissions and methane capture, while the Panel is very supportive of Component 3 of the project STAP wishes to emphasize that the project consider total system carbon from sustainable land management (SLM) activities, and the GEBs likely to accrue in this area. Findings and results from the recently completed Carbon Benefits Project would be useful in this regard. In addition, discussion on the likely economic sustainability of this technology once the project concludes should be addressed.

STAP would encourage the authors of this project concept to consider the results of the GEF Biodiversity Monitoring and Learning Review Mission (Zambia, 12/2010) in the design and implementation of Component 1 of the project.

Finally, this UNDP-led initiative is one of a number of similar projects that this Agency has proposed for the Southern Africa region in this Work Program. It would seem relevant, for instance, that UNDP's extensive experience in improving protected area management effectiveness in Zambia would be relevant for the UNDP-led initiative in Angola to support the development of a comprehensive national protected area system. STAP urges the authors of this PIF to consider how lessons and knowledge from this project can be shared effectively with similar initiatives in the region.

Note concerning resilience to climate change:

STAP is currently testing a project screening tool to assess the potential risks associated with climate change to project design. In reviewing available data and projections, while STAP agrees that the maintenance of forest cover and protected area integrity represents a good adaptation policy, the Panel does not fully concur with the assessment of the project developers that climate risks to project objectives will be low. Current climate projections suggest a possible increase in rainfall in the northern areas of the country which drain to the Congo basin. Southern and western areas of the country will likely become drier, which will impact forest productivity and increase the risk of fire (already noted as a threat to biodiversity) in areas where a number of major protected areas are located.

In addition, the change on frequency of the "three 30s" (air temperatures above 30 degrees; humidity below 30%, and air speed above 30 km per hour) and extensive wild fires is of concern. Another emerging problem is that of the competitive advantage provided to C3 shrubs and tree saplings given by increased atmospheric carbon dioxide concentrations - C3 woody plants out-growing C4 grasses and getting above the fire kill zone - ultimately shading out C4 grasses and ultimately transforming the plant structure of miombo woodlands from wooded grassland to thicket. This new finding is only now entering the literature, but it indicates that in some areas carbon dioxide enrichment will transform wooded savannas to thickets. STAP encourages the developers of this initiative to revisit their consideration of climate risk in this project, along with associated mitigation strategies.

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.