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 06, 2011 Screener: Guadalupe Duron

Panel member validation by: Michael Anthony Stocking
Consultant(s):

I. PIF Information *(Copied from the PIF)*
FULL SIZE PROJECT GEF TRUST FUND
GEF PROJECT ID: 4631
PROJECT DURATION : 4
COUNTRIES : Burundi
PROJECT TITLE: Watershed Approach to Sustainable Coffee Production in Burundi
GEF AGENCIES: World Bank
OTHER EXECUTING PARTNERS: Ministry of Environment
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): **Consent**

III. Further guidance from STAP

STAP welcomes the proposal from the World Bank "Watershed Approach to Sustainable Coffee Production in Burundi". The project components are clear, and correspond to the problem statement defined in the proposal. In particular, STAP supports the World Bank's initiative to conduct a "Rapid-Strategic Environment Assessment" to analyze the socioeconomic and environmental aspects throughout the coffee value chain. This exercise will undoubtedly assist in achieving the project objective, highlighting potential threats on, as well as coping strategies for ecosystem management and sustainable livelihoods. The project could be strengthened in several ways as noted by STAP below.

1. STAP believes the proposal clearly defines the complexity surrounding biodiversity conservation and sustainable coffee production at the watershed level (Component 1). STAP also understands the rationale for introducing Payment for Ecosystem Services (PES) as an incentive to generate downstream benefits. However, STAP wishes to encourage the World Bank to build in STAP's advice on PES, which is articulated in its Advisory Document "Payment for Environmental Services and the Global Environment Facility (The report can be downloaded at STAP's website: www.unep.org/stap Publications/Advisory Products). In particular, STAP wishes to draw attention to the barriers to PES effectiveness, discussed in the report. Briefly, these are: 1) non-compliance with contractual conditions; 2) poor administrative selection; 3) spatial demand spillovers; and 4) adverse self-selection. STAP highly recommends for the World Bank to describe at length the design choices to minimize these threats, and specify indicators that will permit an evaluation of the importance of these threats in the project. This advice and the barriers are described at length in STAP's PES advisory document.

Furthermore, the World Bank may wish to consider how to explicitly design the proposal to evaluate the impact of PES. The GEF, as an important investor in PES, can contribute to generating the evidence base for PES effectiveness. STAP provides further guidance on how to explicitly design proposals to generate evidence base for PES effectiveness in the aforementioned advisory document.

2. The proposal suggests shade-grown coffee as a technology to drive sustainable coffee production in the priority watershed (Component 1). STAP agrees with the potential benefits that shade-grown coffee may derive for biodiversity conservation, sustainable land management, and climate change mitigation, as outlined in the proposal. What is not clear from the proposal is why farmers have not adopted shade-grown coffee practices in the project area. Studies have suggested that sun-grown coffee bushes may yield up to three times the production of shade-grown coffee, although some of this differential is due to fertilizers. As the PIF rightly notes, the 800,000 or so coffee-growing households are amongst the poorest in Burundi; any reduction in income, even temporarily, will be unwelcome and possibly resisted. There are other possible production constraints that may affect on-farm labour requirements if coffee is mixed with

other trees in a polyculture. Equally important, it is unclear whether, and to what extent, the project considered these reasons in the component design. For example, will farmers be asked why they have not adopted shade-grown coffee, and base the project's intervention (introduction of shade grown coffee, and other training activities such as crop management) on farmers' responses?

3. The proposal also does not specify what shade trees the project will introduce (legumes, fruit trees, other), what criteria were used to select the tree types and how these will contribute to global environmental benefits. Additionally, will the tree selection be based on farmers' input? There are substantial differences between traditional polycultural practices for coffee which may resemble a forest with up to 40 species, compared to commercial polyculture with much lower densities of shade trees and often with chemicals. STAP suggests the World Bank details these aspects further and that a clear strategic direction in production approach be articulated.

4. STAP recommends for the World Bank to refer to its Advisory Document "Environmental Certification and the Global Environment Facility" for the development of the sustainable coffee certification program (Component 3). The report assesses the evidence base on environmental and socioeconomic impacts of certification programs, including coffee. STAP's key messages on GEF certification projects are as follows:

a) "There are four main threats to eco-certification effectiveness: (i) weak certification standards; (ii) noncompliance with certification standards; (iii) limited participation, which can stem from supply-side or demand-side factors; and (iv) adverse self-selection, whereby actors already engaged in, or intending to engage in, innovative or environmentally-friendly practices disproportionately participate in the program. The first three threats are generally recognized in GEF project designs. However, the threat of adverse self-selection, which has been shown to limit impacts in a wide range of voluntary programs, is typically ignored in project designs. Every GEF certification project proposal should describe design choices to minimize these four threats and specify indicators that will permit one to evaluate the importance of threats (ii) - (iv) during the life of the project.

b) Despite the abundance of certification programs operating worldwide, only thirty-seven studies have attempted to measure these programs' environmental or socioeconomic impacts. Of these thirty-seven studies, only fourteen make a serious attempt to elucidate the causal impact of certification by eliminating rival explanations of the observed outcomes (e.g., increased incomes) that have nothing to do with certification (e.g., national trends in economic growth). Twelve of these fourteen studies focus on the banana, cocoa or tourism sectors. Ten focus only on Fair Trade or organic certification. Importantly, only four of the fourteen studies examine environmental impacts and only one of these four detected any impact (five out of ten of the socioeconomic studies detected positive impacts). The evidence base provides, at best, weak evidence for the hypothesis that certification has positive socioeconomic or environmental impacts. GEF agencies proposing a new or expanded eco-certification effort must acknowledge that they are proposing an innovative, but inadequately understood, intervention and carefully explain the pathways through which their project will generate desired environmental (and perhaps socioeconomic) impacts.

c) Financing of certification initiatives is consistent with the GEF's mandate to increase the supply of global environmental benefits. The limited evidence base does not imply that the GEF should avoid investing in certification programs, nor does it imply that past investments in certification have necessarily failed to yield returns. However, it does imply that GEF investments in certification should be made in projects that are deliberately designed to evaluate the environmental impacts of the certification program. Projects must include more than simple monitoring of status and trends of environmental indicators. They must be designed to permit credible inferences to be drawn about whether the program is contributing to changes in the status and trends of the indicators. Examples of such designs are described in Section 6 of this review. The information generated by such designs will also contribute to achieving Learning Objective Three of the GEF-5 Biodiversity Focal Area Strategy: Enhancing Impacts through Improved Understanding of the Causal Relationships between Popular Mainstreaming Approaches and Conservation Outcomes."

STAP's Advisory Document on Certification can be found at www.unep.org/stap

5. While STAP fully supports the watershed management approach, especially the use of traditional SLMW practices, STAP has some concerns that the project may proceed without due cognisance of the very considerable prior research undertaken in Burundi on agricultural practices and soil erosion. For example, the French research organization, ORSTOM (as it was then), undertook extensive experiments on agroforestry on steep slopes, finding that the ferralittic (iron-rich) soils can be restored only after large applications of lime and that, even with hedgerow interplanting, soil acidity remained a major problem limiting yields. An understanding of these constraints and a review of previous relevant research would be very important in a project such as the one being proposed for GEF support where different agricultural practices are to be promoted.

6. On global environmental benefits, STAP suggests strengthening this section so that it reflects the expected benefits from biodiversity conservation which are currently absent in the PIF. For sustainable land management benefits (carbon stocks), the World Bank also could consider using the tools and methodology of the UNEP-GEF Carbon Benefits Project.

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.