

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 01, 2013

Screener: Guadalupe Duron

Panel member validation by: Annette Cowie
Consultant(s):

I. PIF Information *(Copied from the PIF)*

FULL SIZE PROJECT **GEF TRUST FUND**

GEF PROJECT ID: 5324

PROJECT DURATION : 4

COUNTRIES : Brazil

PROJECT TITLE: Reversing Desertification Process in Susceptible Areas of Brazil: Sustainable Agroforestry Practices and Biodiversity Conservation

GEF AGENCIES: FAO

OTHER EXECUTING PARTNERS: Ministry of Environment - Extractivism and Sustainable Rural Development Secretary - Desertification Combat and Land Degradation Dept. (MMA/SEDR/DCD)

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

STAP acknowledges FAO's proposal "Reversing desertification process in susceptible areas of Brazil: Sustainable agroforestry practices and biodiversity conservation". STAP suggests that the proposal could have been further strengthened by describing more fully the components, so that it could have been more apparent how the interventions support the project objective. Some of these details are in the project framework, and could complement the narrative description of the components. Additionally, an outline of the forest species being lost in the Caatinga and Cerrado appear not to be included in the proposal. Providing this information could further strengthen the claim of addressing biodiversity loss, and identifying ways to address forest restoration. The proposal also does not define how forest restoration will lead to carbon sequestration and reduced carbon emissions. This aspect of component 3 requires further elaboration in the proposal.

To strengthen further the proposal, STAP recommends addressing the following issues during the development of the concept.

1. In the project description, it would be useful to provide further details about the Caatinga and Cerrado biomes to describe further the vegetation, and the agricultural activities (including livestock) influencing land use change. The following literature source provides a general characterization of the Caatinga and Cerrado biomes, which the project developers may wish to use. The authors of that study also argue that proximity and density of roads has influenced agricultural expansion in the Cerrado biome. Perhaps roads also need to be considered a determining factor influencing the global environmental outcomes the proposal seeks to achieve. Suggested literature: Rada, N. Assessing Brazil's Cerrado agricultural miracle. *Food Policy* 38, 146-155. 2013.
2. Similarly, STAP recommends defining the socio-economic characteristics of the targeted regions. Doing so, will help design the interventions through an integrated approach that fully accounts for the ecosystem services and socio-economic benefits of the targeted landscape and populations. Additionally, an integrated assessment could assist the project developers identify the trade-offs between the multiple land use options. This may help address the competing demands for forest uses described in the proposal.
3. Once the targeted areas are defined, STAP recommends defining further the drivers of dry forest conversion in the targeted area (ecological and socio-economic). The drivers are likely to be site specific, and including this information

may strengthen further the design and implementation of the project (integrated natural resource management practices and policies).

4. The project developers may wish to draw from the following paper that analyzes the extent of tropical forests in the Caatinga and Cerrado biomes including forest fragmentation: Portillo-Quintero, C.A. et al. "Extent and conservation of tropical dry forests in the Americas", *Biological Conservation* 143, pp 144-155, 2010. The authors also encourage further assessments of dry forest cover to understand their conservation status and ways to strengthen it through protected areas and biological corridors. Perhaps the project developers can think of ways how the results can contribute to the scientific understanding of dry forests in the Caatinga and Cerrado biomes.

5. STAP encourages FAO to define baseline indicators for each proposed global environmental benefit (biodiversity conservation and carbon sequestration). For example, the biodiversity indicators appear not to be included in the proposal. Thus, STAP recommends strengthening the baseline by defining the impact indicators, providing data, and describing the methodology that will be used to estimate and monitor the global environmental benefits.

6. As mentioned above, STAP suggests elaborating further how carbon sequestration and reduced carbon emissions will be addressed through the interventions. Perhaps component 3 on forest restoration is intended to achieve this global environmental outcome. The project developers may wish to draw upon the following paper to characterize further the Cerrado and its potential for carbon storage from biomass Riberio, S.C. et al. "Above and belowground biomass in a Brazilian Cerrado. *Forest Ecology and Management* 262, pages 491-499, 2011. STAP also recommends using the UNEP/GEF Carbon Benefits methodology to estimate carbon stock changes. The CBP methodology can be accessed thru this link http://www.unep.org/ClimateChange/carbon-benefits/cbp_pim/

7. Furthermore, STAP recommends providing climate data projections or trends for the targeted areas, and developing climate resilience interventions based on this data. The climate data could be obtained at the World Bank's Climate Change Knowledge Portal http://sdwebx.worldbank.org/climateportal/index.cfm?page=climate_data ; which includes (for example) UNDP's climate change country profiles <http://www.geog.ox.ac.uk/research/climate/projects/undp-cp/> among other tools.

8. In section A.2, STAP suggests defining the role each stakeholder will have in delivering a component, specifying their comparative advantage.

9. The proposal appears to indicate that previous efforts were not sustained when the projects ended (page 8). It is not clear, however, how this proposal will be different from previous efforts. Further details in this regard would be useful to add in the full proposal. Additionally, it would be useful to clarify further whether the incentive mechanisms (page 9) are new initiatives to be undertaken through this project?

10. STAP also is unclear whether the proposal intends to support alternative livelihoods. Further details on this aspect would be useful to understand further the proposed interventions.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	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. 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.
2. Minor revision required.	STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development. 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.
3. Major revision required	STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design. 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.
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