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: May 04, 2012

Screener: Thomas Hammond

Panel member validation by: Thomas Lovejoy; Nijavalli H. Ravindranath Consultant(s):

I. PIF Information (Copied from the PIF) FULL SIZE PROJECT GEF TRUST FUND GEF PROJECT ID: 4942 PROJECT DURATION : 5 COUNTRIES : India PROJECT TITLE: Integrated Biodiversity Conservation and Ecosystem Services Improvement GEF AGENCIES: World Bank OTHER EXECUTING PARTNERS: 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 welcomes this initiative which outlines a coherent mix of interventions in forested and production landscapes to increase and improve forest coverage/quality, improve carbon stocks, and contribute to biodiversity conservation. The bio-geographic focus of the project supports the priorities of the Green India Mission (GIM), along with biodiversity priorities more broadly. The project would clearly contribute to an integrated approach to biodiversity conservation and carbon sequestration. STAP welcomes the quantification of expected carbon and biodiversity benefits.

Project interventions as described relate primarily to improved forest management capacity, skill development with regard to forest planning and related technologies, overall strategy development, data collection and monitoring (carbon stocks, forest coverage & inventories, invasive species, key biodiversity indicator species), mapping, and improved regulations. STAP supports the planned investments in these areas, as will provide valuable inputs and will contribute to project success and the delivery of global environmental benefits.

The PIF mentions developing "Policies and Regulations", although there is no apparent analysis as what is currently lacking in this regard. India is known to have progressive policies and legislation such as the forest conservation act and Biodiversity Act, along with community participation in forest management (JFM), wildlife protection, etc. India also has an effective National Biodiversity Authority. Given that India already appears to have progressive, STAP would propose reassessment of the budget allocation for this component of the project.

National and sub national agencies and departments responsible for forest management appear to be the primary beneficiaries of this project $\hat{a} \in \hat{a}$ which corresponds to the suite of interventions described above. However, the key problem the project attempts to address is ongoing forest degradation and biodiversity loss as a result of "habitat fragmentation, land use change, encroachment, unsustainable utilization of resources, invasive species, and wildlife poaching". These processes appear to be largely driven by the rural poor utilizing open access forest resources and non-timber forest products beyond sustainable thresholds. The document notes that 20 million people in the project area are described as forest dependant, which increases to almost a third of the Indian population nationwide.

The underlying assumption of the project appears to be that investments in improving the capacity and skills of government entities responsible for forest management will result in declines in unsustainable use of forest resources and NTFPs, improvements in below and above ground carbon stocks, and improvements to quantifiable measures of biodiversity (measured through changing populations of identified threatened or vulnerable species). However, STAP is concerned that the project neither describes nor appears to coherently address the root causes of unsustainable use of forest resources or NTFPs $\hat{a} \in a$ and that the potential impact of this issue to long term project success is highly

underestimated in the risk table. While this issue may be addressed more comprehensively within GIM, it is not evident in the current project PIF. The project notes that the primary barrier to sustainable resource use is "lack of awareness" regarding unsustainable harvesting practices. Numerous benefits flowing to the rural poor as a result of this project are described, however these do not appear to be coherently linked to the majority of interventions.

The projected impacts from climate change, STAP believes, are also significantly underestimated in the project as described. At present, the project does not outline how future changes in precipitation patterns and surface water may affect project interventions and the long term delivery of global benefits. Complex topography in this part of the world, and a lack of consistency between models in representing monsoon processes which contributes to uncertainty in estimates of future precipitation in this region, means that local variations across this part of the Indian sub-continent in response to global warming, particularly precipitation, are likely to vary widely (Christensen et al., 2007). Climate change will almost certainly affect the distribution patterns, population densities, and pathways for invasive species. With specific regard to the issue of invasive species, in the context of well established invasions community participation and intervention is essential to successful control efforts.

Recent studies show that the mid and northern parts of the Western Ghats are likely to be impacted by climate change by as early as 2030 - and data is already available. The PIF generally recognizes the potential risks for forests based on the IBIS model, but doesn't provide a clear indication of how climate change risks will be addressed. Further - the Greening India Mission clearly aims at reducing vulnerability, and this aspect is not so far adequately considered in the project.

Please see:

Murthy, IK and Tiwari, Rakesh and Ravindranath, NH (2011) Climate change and forests in India: adaptation opportunities and challenges. In: Mitigation and Adaptation Strategies for Global Change, 16 (2, Sp.). pp. 161-175.

R. Gopalakrishnan, Mathangi Jayaraman, G. Bala and N.H. Ravindranath, 2011: Impact of Climate Change on Indian Forests, Current Science, 101(3), 348-355

Finally, the project PIF indicates that biodiversity benefits are also expected through the reduction of anthropogenic pressures in forest lands and production landscapes around protected areas. STAP strongly urges that an appropriate monitoring strategy with quantifiable indicators against baselines be put in place to provide the necessary evidence to support this assumption.

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.