

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility



## STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: 25<sup>th</sup> January 2010

Screener: Lev Neretin

Panel member validation by: N.H. Ravindranath

### I. PIF Information

**GEF PROJECT ID:** 4188

**COUNTRY(IES):** CHINA, PEOPLES REPUBLIC

**PROJECT TITLE:** TECHNOLOGY NEED ASSESSMENT ON CLIMATE CHANGE

**GEF AGENCY(IES):** WORLD BANK

**OTHER EXECUTING PARTNER(S):** IN CHINA – NATIONAL DEVELOPMENT AND REFORM COMMISSION (NDRC)

**GEF FOCAL AREA (S):** CLIMATE CHANGE

**GEF-4 STRATEGIC PROGRAM(S):** ENABLING ACTIVITIES

**NAME OF PARENT PROGRAM/UMBRELLA PROJECT (IF APPLICABLE):** N/A

### II. STAP Advisory Response *(see table below for explanation)*

1. Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):  
**Consent**

### III. Further guidance from STAP

1. The project aims at technology needs assessment for mitigation and adaptation, including implementation of options and support to pilot implementation of technology transfer (TT) for a few priority technologies. This is a very important activity for China to identify strategies for mitigation and adaptation TT. The project proposes a comprehensive approach covering all sectors of the Chinese economy. It would be a challenge to achieve the objectives or the outcomes in a span of 30 months. The project has many positive and innovative components. It aims to build on the existing work and existing networks and aims to make China a world leader in developing, adopting and utilizing climate relevant technologies. China could be setting up a model for other countries to follow in the area of TT. There is a need to address the issues presented below before the CEO endorsement.
2. *National Communications Project:* Many of the activities or components listed are also part of the National Communication project. Second National Communication, aimed at GHG inventory should identify the dominant GHG emitting sectors and sub-sectors or industries and regions. This could provide a focus for mitigation assessment. There is a need to ensure complementarities between the two projects. Since both projects are implemented by NDRC, such co-ordination is can be easily achieved.
3. *Mitigation and Adaptation:* The project components, expected outcomes and outputs are identical for both Mitigation (M) & Adaptation (A) in the project. Surely there is a difference between the methods, approaches, models, target sectors and groups etc for M & A. Thus, there is a need for a careful consideration of the differences in the features of M & A.
4. *Which sectors for M&A:* A large number of sectors are mentioned for M as well as A. In a large country like China, which sectors would be selected for TT in M&A? The importance of sectors may vary from region to region. There is a need to develop criteria to select sectors and activities for M & A interventions. In analyzing and prioritizing technologies for support, STAP recommends exploring potential synergies between adaptation and mitigation, particularly for technologies supporting sustainable agriculture, forestry, water resources management and other ecosystem sectors. Technologies providing dual benefits for climate mitigation and adaptation may be given priority.
5. *Methods, models, experimentation and surveys:* There is a need for clarity on the suitability of different methods, models and experimentation approaches to be adopted for different sectors and technologies. There is a need for review of different methods and models and select the most appropriate ones.

6. *Removal of Barriers:* The project aims to remove all the barriers for M & A. This is a huge task to be achieved in a single project, in a span of 30 months. In the adaptation field, there may be a need for field research, experimentation, modeling and surveys for assessing the impacts of climate change on different sectors, the vulnerabilities of the sectors, the damage due to projected climate change and development of adaptation practices and policies. In the mitigation field, a number of barriers have to be systematically addressed; for example, barriers for cook stoves will be different than those for carbon capture and storage technology. The barriers may vary for different sectors and even for a given sector for different regions. Thus, identification of barriers at the regional and sectoral levels may be required. The project should adopt scientific methods to identify, rank and prioritize the barriers, for different sectors and different regions.
7. *Demonstration of technology R & D, transfer and diffusion:* This is being included both for M & A. It will be a challenge to select the technologies where one could go through all the stages of technology diffusion - R&D, demonstration, pilot project, transfer and diffusion. This may not be feasible in a project of 30 months for M & A technologies.
8. *Follow-up of this project and institutional arrangements:* How will the outputs of the project be followed-up beyond the project period of 30 months? How will the industry, municipalities, farmers and governments be involved in different phases of the project and how will they benefit from the outputs of the project? Who will fund the follow-up actions? What institutional arrangements are required for large scale transfer of M & A technologies? What will be the role of government, industries, R&D labs etc. in promoting large scale TT? STAP expects more details provided on the process how stakeholder engagement at different levels (national, provincial and municipal) is assured in the assessment and pilot projects.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	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.
<b>2. Minor revision required.</b>	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: <ul style="list-style-type: none"> <li>(i) Opening a dialogue between STAP and the proponent to clarify issues</li> <li>(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</li> </ul> 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.
<b>3. Major revision required</b>	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.