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SCIENTIFIC AND TECHNICAL ADVISORY PANEL (STAP): PLANNED DELIVERABLES BY END JUNE 2004

(Prepared by the Scientific and Technical Advisory Panel)

Scientific and Technical Advisory Panel (STAP): Planned deliverables by end June 2004

The term of the current Panel (STAP III) will end in June 2004. This note sets out what STAP plans to deliver by that date:

- a. New guidance on Operational Programme 7 (OP7), “Reducing the Long-Term Costs of Low Greenhouse Gas Emitting Energy Technologies.”

OP7 supports the development of such technologies which show promise of becoming commercial in future by seeking to increase their market share. But the number of projects has been relatively small. STAP was asked to reexamine OP7’s underlying assumption that GEF projects can buy-down the costs of technology to competitive levels. The guidance will conclude inter alia that to succeed the GEF needs to act more in a facilitating role and to establish partnerships with and between countries and private sector companies: it also needs to ensure that a supportive policy environment is in place to encourage technologies to flourish.

- b. Advice on emerging innovative technologies for the destruction and decontamination of obsolete persistent organic pollutants (POPs).

In many developing countries adequate destruction facilities for POPs are not available, and the costs of providing them high. In addition, there are environmental and health concerns about emissions of POPs by-products which arise from combustion. This has encouraged the development of alternative technologies. STAP was asked to advise on the potential (and drawbacks) of existing and emerging innovative non-combustion technologies and bioremediation technologies for the destruction of POPs: it was also asked to look at the potential for the use of such technologies in developing countries.

- c. Advice on the use of bio-indicators, biomarkers and analytical methods for the analysis of POPs in developing countries.

Most of the existing methods for measuring the presence of POPs are highly technical and involve the use of sophisticated instruments and specialized chemicals which makes it difficult for laboratories in developing countries to monitor POPs: these methods are also often costly. STAP was asked to consider whether simple, inexpensive and accurate methods were available for use as a first screening of contaminants in developing countries. It is therefore conducting a review of suitable analytical methods, bioindicators and biomarkers for POPs. STAP’s advice will include guidelines for decision-making and recommendations on the use of these technologies.

- d. Best practices in land restoration and rehabilitation of drylands. This will provide the GEF with recommendations, and a checklist of what to do and what not to do. The advice will also advise on how the disjunction between biophysical and sustainable livelihood issues can be dealt with, and what policy and institutional structures can lead to success, and to failure.
- e. Targeted Research on natural protected areas in the face of global environmental change. The current availability, design and management structures of protected areas were not conceived to deal with expected global environmental change from climate change, land use and cover change, the invasion of exotic organisms, over-exploitation, atmospheric CO₂ enrichment and deposition, and biological extinction. New responses and strategies are needed to implement action in social, economic, political and scientific realms, and their cross-cutting interactions. But to produce these will require new targeted scientific research. STAP will identify three or four top priority issues as candidates for targeted research projects.
- f. A biosafety source book on environmental risk assessment of genetically modified organisms (*Bt* maize in Kenya). This is the output from a workshop which took a case study approach to applying scientific information and methods. It is an example of capacity building in a developing country and should make a valuable contribution to the Biosafety Clearing House.
- g. A review and synthesis document identifying strategic priorities on groundwater management.

This will provide a better understanding of: the major threats which are affecting groundwater and deep/confined aquifers globally; the role of groundwater in the face of increasing demand for water, and a changing climate; and possible ways to promote the protection of aquifer systems, and their sustainable use. It will inter alia consider issues such as over-exploitation (saltwater intrusion, over extraction, etc.), technologies (artificial recharge, drought management, etc.) and non-renewable groundwater resources (“fossil” aquifers, groundwater mining, etc.).

- h. A document on the strategic interlinkages between biodiversity, climate change, land degradation, international waters and persistent organic pollutants focal areas.

Globally, there is an emerging recognition of the importance of interlinkages between climate change, biodiversity and land degradation and more recently with freshwater and coastal systems. GEF needs a better understanding of these linkages as it moves into more multi-focal areas,

e.g., integrated land management (OP#12), agrobiodiversity (OP#13), sustainable land management (OP#15), mainstreaming biodiversity into production landscapes (a strategic priority in the biodiversity focal area), and potential pilot projects in adaptation. STAP can assist by identifying synergies between the different areas, and tradeoffs that can be considered for strategies and interventions. The document will build on work already done by, for example, the Millennium Ecosystem Assessment, the Ad Hoc Technical Experts Group on Biological Diversity and Climate Change. STAP's task will be to bring this scientific material to bear on the GEF's operations, and to suggest types of interventions, tools and methodologies.

In addition, STAP will continue to play a full part in the M&E work programme, and take the lead in reviewing Targeted Research proposals. Panel Members are also involved in work on performance-based allocations, the private sector review, local benefits, and knowledge management, etc.