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SUMMARY REPORT OF THE STAP MEETING  
9-12 APRIL 2008,  
HELD AT UNEP, NAIROBI, KENYA

**(Prepared by UNEP)**

# Scientific and Technical Advisory Panel

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



## Summary Report of the STAP Meeting 9-12 April 2008, held at UNEP, Nairobi, Kenya

### Introduction

1. The following is a summary of the discussions held at the Scientific and Technical Advisory Panel meeting, hosted by the United Nations Environment Programme in Nairobi, which included sessions on the GEF-4 science stock-take, achievements and challenges remaining within GEF-4 and the likely main scientific drivers of a GEF-5 vision, the future of targeted research, and the need for more objective measures in projects to increase the impact of the GEF.
2. The meeting period also included a “GEF Day at UNEP”, on Friday 11<sup>th</sup> April, at which UNEP organized a high level panel to provide feedback on the emerging ideas from STAP’s work on a science vision for GEF-5, as well as to review the progress made towards completion of STAP reform. The event was opened by Achim Steiner, Executive Director of UNEP, who also provided his analysis of the outcomes in his closing remarks.
3. The STAP meeting was opened on Wednesday 9<sup>th</sup> April by Angela Cropper, Deputy Executive Director of UNEP (and former STAP member), and chaired by Panel Member Michael Stocking for the first day, then on subsequent days by Yolanda Kakabadse, Chairperson of STAP.

### Session 4 - GEF-4 science stock-take

4. The session began by Panel Members presenting and discussing their perceptions of the scientific and technical underpinnings used to design projects and programmatic approaches in GEF-4. The main observations made by STAP included the following:
5. Climate Change – On mitigation projects, there is a need for scientific rigor justifying the selection of technical, policy, or institutional interventions. STAP also believes that project concepts could be strengthened by specifying further the risks and mitigation measures – for example, risks and measures that are country specific.
6. On Adaptation, STAP believes that adaptation activities could be better linked to other focal areas in the GEF instead of being separately defined. STAP provided an example of an adaptation project it had recently screened whereby the land degradation and adaptation activities appeared to be defined as stand-alone interventions, instead of clearly linked activities.
7. Biodiversity – STAP’s perception, even giving the limitations of the PIF format, is that there is often very little existing evidence to support the interventions proposed in the project

concepts. STAP proposes, therefore, to assist the GEF in encouraging the use of experimental, or quasi-experimental, design in projects and programs (in applicable projects and programs) to build the evidence base for GEF interventions.

8. International Waters – The concept of Large Marine Ecosystems (LMEs) may need to be reconsidered as the central organizing theme for international water projects, especially if GEF-5 is to consider high seas areas and also LME changes due to ocean climate change. STAP notes, however, that the application of LME work has developed considerably in recent years to include important socio-economic characteristics important to the use and management of transboundary water bodies, and to become much more problem-centered in its approaches in specific LME's.
9. Land Degradation – Ecosystem services may need to be reconsidered as not only a global environmental benefit argument, but an approach that starts and is driven at the local level.
10. The participants discussed STAP's observations, and agreed with some of the issues that were raised. For example, UNEP and IFAD remarked that, indeed, more specific guidance from the GEF Secretariat on developing proposed response statements on better refined and more specific risks within project concepts would be useful.
11. On LME approaches, UNDP proposed that a STAP paper on LME versus other bio-regional approaches for transboundary water projects could be useful to discuss, and potentially re-appraise and re-justify the use of the LME and other potential bioregional approaches. UNDP also asked for greater specificity on what cross-cutting issues are important, given the GEF Evaluation Office's (EO) request for the GEF Agencies to develop more cross-cutting projects.
12. The Panel Members and the STAP Secretariat also raised general observations about project design. For example, they noted that baselines and global environment benefits are sometimes not clearly defined in the proposals, and that outcomes and outputs are sometimes confused. The GEF Secretariat responded that these issues are also repeatedly raised in the GEF Secretariat's project reviews.
13. The EO added they had only recently begun to review the impact of GEF projects, and that perhaps STAP and the GEF Secretariat could be looking not only at baselines but a step ahead – that is, consider how the inputs from the GEF can lead to global environment benefits since this is not always explicitly defined in the PIF.
14. The EO also encouraged the use of experimental design methods so that GEF interventions, and innovations, can be measured. In this regard, the EO wants to build a closer relationship with STAP on experimental and quasi-experimental design, so that, in the case of the biodiversity focal area, it can better place its evaluations in a broader context of protected areas.
15. The session focused also on whether the Project Identification Form (PIF) is the right instrument to use to assess the scientific rigor of the project concept, or whether placing STAP's involvement more upstream (even before a PIF is submitted) would be a better option to provide more targeted advice on the scientific design of the project.
16. Participants agreed that while the PIF is an imperfect tool, it should remain unaltered for the time being, given that it has only recently been developed, although also agreeing that the PIF is still not sufficient for the purpose of scientific and technical screening. Additionally it was noted that by the time PIFs are submitted to the GEF Secretariat that considerable early

design work has already been done, often over more than a year in advance, reducing the likely impact of STAP's advice.

17. Discussion led to two sets of views, one that STAP should engage in informal dialogue with GEF Agencies even earlier, the other that STAP PIF screening should primarily influence the next stage – to improve the document later submitted for CEO endorsement.
18. The views expressed reflected general agreement that STAP's input at the PIF stage is valued, but that it needed to be closely coordinated with comments coming from the GEF Secretariat to avoid apparent conflicts of advice or multiple disjointed sources of advice. Several proposals to revise the STAP – PIF screen procedures resulted from this discussion:
  - STAP to screen only those projects that are considered risky, or involved in new technologies.
  - STAP to continue screening PIFs but to focus its screening on the scientific and technical design aspects it would expect to see in the final document submitted for CEO endorsement.
  - STAP to review pre-concepts (PIFs before submission) and advice the GEF Agencies on the scientific design of the project.
19. The GEF Secretariat reminded the group that a PIF is a brief project concept note; thus, the PIF design will likely not meet STAP's and the EO's expectations on quality of project design methods (for example, clearly defined baselines). The GEF Secretariat also remarked the importance for STAP and its Secretariat to develop a project tracking system so that it can monitor its advice provided in the screens, particularly for those projects it recommended to be consulted on as they are developed further.
20. In conclusion, STAP's work in PIF screening was considered a good start, but that to increase impact, STAP should also focus on advising the GEF more strategically, including analyzing each work program to identify scientific gaps and the need for innovation.

## **Session 5 - Achievements of GEF-4 and current challenges**

21. This session reviewed the progress made in GEF-4 against contemporary environmental challenges. The discussions served, therefore, as a basis for a review of the current focal area work, and towards the building of a GEF-5 science vision, jointly with the GEF Secretariat and GEF Agencies.
22. The first round of discussions was prompted by comprehensive GEF Secretariat presentations on the current state of programming resources in the Natural Resources Team and the Climate Change & Chemicals Team. The commentary focused on general aspects of the GEF – that is, how can innovation in the GEF have a more strategic focus that goes beyond short-term achievements? What could be the GEF's strategic niche in the next replenishment, amidst the emerging environment funds? More specific input on what could be the emerging priorities on the environment in GEF-5 was also discussed at the meeting. The main challenges identified included –
23. Biodiversity –
  - Biosafety in terms of safe technology, including links to climate change adaptation.

- Challenge of turning the ecosystem framework into an operational approach for achieving global environment benefits.
- Biodiversity and climate change, and the optimizing of the size of corridors to ensure their resilience to changes to facilitate species movement and biological connectivity.
- Scientific case for longer term horizons on biodiversity. How can biodiversity projects show benefits in four years? Thus, there is a need to establish a scientific case for longer-term horizons on biodiversity.

#### 24. Climate Change –

- How can climate change technologies be made more accessible to developing countries?
- Defining adaptation clearly, and identifying adaptation strategies.
- Defining sustainable transport indicators more clearly

#### 25. Land Degradation –

- Lessons from large programmatic frameworks – example, TerrAfrica.
- Competition for use of land for fuel, food, fibre, and the impacts on soil fertility.
- How to measure sustainable land management benefits?

#### 26. International Waters –

- Improving the implementation of IW SAP's
- Safe water. Focus more effort to address arsenic in groundwater sources.
- Ocean acidification and its impacts
- Making aquaculture more environmentally sustainable, and the question of introduction of invasive species through aquaculture

#### 27. Chemicals –

- How to reflect in global environment benefits actions on chemicals with local impact but that are occurring globally?
- Emphasize chemicals linkage to all focal areas.

28. For work in Multi-Focal Areas, participants remarked how difficult it was to implement and measure the work, although MFA actions were thought desirable regarding sustainability.

29. Several participants again recommended that STAP provide a review of GEF work programs to analyze and identify gaps, in order to advise the Agencies on how projects and programs could be designed better to address the strategic objectives, as well as to identify innovative interventions.

30. The session ended by the participants reaffirming that STAP's advice is welcome and needed. To this effect, the World Bank noted that it hosts a large body of scientific expertise, which it taps for project development. Thus, it recommended that STAP focus its work on targeted advice pieces that are not project reviews.

### **Session 7 – Experimental and quasi-experimental impact evaluations**

31. The Evaluation Office (EO) of the GEF and STAP held a joint session on experimental and quasi-experimental impact evaluations. The EO described its interest in impact evaluations as a way to describe specifically GEF investments, while STAP's interest is in ensuring the GEF invests its funds guided by the best evidence about what works and under what conditions.
32. The GEF Agencies and Conventions overwhelmingly supported STAP's proposal to use experimental and quasi-experimental impact evaluations in a selected proportion of the GEF portfolio – for example, through targeted research. Nonetheless, several concerns and questions were raised about the feasibility of using experimental trials, given the potential high costs to the countries and the GEF. STAP, in partnership with the EO, agreed to write a guideline document on experimental trials, and to look further into what could be the potential costs of using experimental design in GEF projects.
33. To provide feedback on the key highlights of the morning's presentation by the STAP Chairperson, focusing on the two Outcomes (Science Vision, and STAP Reform), within the context of processes and decisions being taken at the global level, MEA level, Agency level.
34. STAP members also stressed their support for EO's new work on rigorous ex-post impact evaluations of key areas of work, noting the new work started on Ozone Depleting Substances. Given that GEF financial support for this work was very limited, it was suggested that the EO could work together with the evaluation offices of large bilateral and multilateral donors on impact evaluation projects of mutual interest in order to increase its portfolio of cases.

## **Session 8 – Science Drivers of a Vision for GEF-5**

35. Several GEF agencies, along with the Panel members of STAP, had contributed informal thought starters for the previous sessions as well as this session (see STAP website for details), and together with the outcomes of the previous discussion on GEF-4 formed the basis for the present session. Considerable detail was presented, summarized below, and will be the basis upon which STAP will develop its forthcoming Science Vision for GEF-5 to be produced in the weeks following the STAP meeting
36. The participants discussed and identified what could be the key priorities for a GEF-5 vision based on discussions held the day before on “Achievements of GEF-4 and current challenges”. The priorities were identified through break-out group and plenary discussions. The participants agreed that the priorities are preliminary, but that the discussion can serve as a starting point on the GEF-5 priorities with the broader scientific community, including the science networks within the GEF Agencies. Shown below are the main priorities identified at the meeting.

## **Priorities for GEF- 5**

37. Climate Change –
  - Identify opportunities to explore the potential synergies between adaptation and mitigation.

- Define GEF's influence in market transformation in energy efficiency based on sound and appropriate science.
- Define risks and mitigation measures (guidelines for PIFs).
- Supplement the avoided CO<sub>2</sub> metric with a more socially relevant measure for adaptation.

#### 38. Cross-cutting –

- Prioritize what cross-cutting issues are important, for what reasons, and define clearly the concept of “interlinkages”.
- Assist with impact evaluation methodologies to assist the Evaluation Office – with assessing the effectiveness of the GEF's investments through innovative designs – for example use of control groups.
- Define more precisely the interactions between climate and natural resource management (both natural resource management effect on climate and climate effect on natural resource management).

#### 39. Chemicals – Recognize the importance of interlinkages between chemicals and other focal areas (e.g. climate, international waters) while responding to the guidance from the Stockholm Convention COP.

#### 40. Climate Change –

- How to follow-up on the guidance provided by IPCC and the Bali Action Plan on integrating mitigation and adaptation?
- Provide guidance on technology transfer in adaptation and mitigation.
- Consider a differentiation of GEF climate strategies according to regional needs –on a scientific basis.
- Define climate proofing and develop a methodology to climate proof GEF portfolios.

#### 41. Land degradation – Lead stronger science for assessment and measurement of land degradation indicators.

#### 42. International Waters – Move from assessment to implementation, and reconsider transboundary diagnostic assessments in international waters with a view to their better guiding implementation.

### **Session – High Level Panel on STAP Reform and GEF-5 Science Vision**

43. A high level panel (convened under the auspices of the “GEF Day at UNEP” on Friday 11<sup>th</sup> April) was asked to provide feedback on the highlights of the STAP Chairperson's presentation by focusing on two outcomes: STAP's draft GEF-5 science vision, and STAP's Reform.
44. Achim Steiner, Executive Director, UNEP, opened the session and welcomed the STAP reform process, and emphasized UNEP's commitment to the hosting of STAP.

45. In the context of UNEP's scientific community, the Executive Director emphasizes the unanimity and emphasis of UNEP's Governing Council to provide scientific advice on the global environment, and, above all, to be the beacon of scientific rigor. The upcoming appointment of a UNEP Chief Scientist will strengthen the interface between UNEP and the scientific community.
46. The Executive Director reminded STAP that they are independent, but not alone in their efforts to harness advice from the scientific community for the GEF. He appealed to STAP to remind the GEF of what are the frontier areas on the environment. The GEF was meant to respond to questions – challenges on the global environment through applied research and development. STAP can identify the big questions.
47. On applying an ecosystem approach in UNEP and the GEF the Executive Director reminded STAP that the goal is to maximize benefits. That is, the approach is not about selecting geographical biomes, but about selecting multiple opportunities. It is a win-win approach, and not necessarily about opportunity costs as STAP believes. The opportunity costs, according to STAP, will need to be considered because there will be an inherent trade-off with the implementation of an ecosystem approach in the GEF. Therefore, STAP believes it is important to identify specifically what are the opportunity costs for the GEF in applying an ecosystem framework?
48. The GEF Secretariat welcomes the restructured STAP, strengthened STAP Secretariat, and the stronger links to global scientific networks. It also welcomes a more clear role and commitment of UNEP as the host of STAP
49. UNDP stated that, regarding strategic advice, it believes that STAP has not always been strategic, or collaborative. However, UNDP looks forward to more strategic and collaborative advice from STAP, partly provided through more upstream advice.

UNDP places a high priority on cross-cutting issues – and welcomes STAP's advice on what cross-cutting issues matter, what lessons can be drawn on cross-cutting issues from GEF-4, and how cross-cutting issues can be addressed in the remaining of GEF-4 and in GEF-5.

On experimental design, UNDP welcomes the approach because of its strength and focus on knowledge base. It looks forward to more specific advice from STAP on how experimental trials could be used in UNDP projects, but cautioned that it needs more clarity on what would be the likely costs of using experimental design.

50. World Bank STAP's added value is in identifying gaps to define priorities in the GEF. Thus, the World Bank would like to see STAP use science to address scientific gaps in the GEF.

On cross-cutting issues, the World Bank concurred with UNDP's views (see above). Additionally, the World Bank proposed that STAP assist with developing measurable outcomes on adaptation.

For experimental design, the World Bank would also like to receive further guidance on what are the potential costs of experimental trials.

The World Bank believes that partnerships with the Conventions are important.



The World Bank believes that STAP reform is going in the right direction.

51. UNCCD Climate change had a memorable year in 2007 with the IPCC winning the Nobel Peace Prize. It is important to recognize, therefore, that climate change is no longer a niche, but a paradigm umbrella. Climate change and adaptation need to be taken seriously in GEF-5. Other high priorities for GEF-5 include integrated land management, and climate change and natural resource management. UNCCD also noted that the Bali Action Plan omitted land/soil advocacy, and urged the GEF not to move away from the Land Degradation focal area.
52. As for the role of STAP, UNCCD stated that it believes it is to help the GEF partners focus in what areas they can work together.
53. UNEP stated that it can play a role in bringing science to the local level. To do this, it intends to strengthen its capacity to assist countries to use data and indicators to predict and assess the state of the environment, so they can report back to UNEP's Governing Council.
54. In its presentations on the Fourth Global Environment Outlook (GEO-4) and Millennium Ecosystem Assessment (MA) outcomes and next steps, UNEP summarized the relevance of the two major assessments for GEF attention. For GEO-4 it emphasized that unprecedented environmental change is a reality, and that the GEO-4 evidence base provides a platform for action to promote the integration of prevention, mitigation and adaptation efforts into the core of decision-making through sustained efforts which include the contribution made by GEF investments, which should consider opportunities for synergies.
55. Regarding the MA, given that many of the necessary scientific (including socio-economics), technical and governance tools are still new or need further development, opportunities exist for the GEF and partners to fund projects and promote policies that help to develop this science and to demonstrate the ecosystem approach for local level and transboundary ecosystems.
56. As for STAP, UNEP recommended that STAP think about how it wished to interact and collaborate with UNEP's Chief Scientist to be appointed later this year. STAP's views on this partnership will form the basis of the terms of reference for the Chief Scientist.
57. UNFCCC emphasized that now is the time to address mitigation and adaptation synergies, technology transfer to developing countries, and emissions from deforestation.
58. UNFCCC recommended that STAP continue to collaborate with the Agencies and Conventions, particularly the Subsidiary Bodies on Scientific and Technological Advice. Finally STAP was also urged to look well beyond the GEF-5 period.
59. Stockholm Convention – The Stockholm Convention on Persistent Organic Pollutants noted that it was the youngest of the Multilateral Environment Agreements (MEAs) present – it entered into force a little less than four years ago and currently has more than 150 Parties.
60. The Stockholm Convention Secretariat also made a number of observations, including that:

- Clear priorities need to be set for GEF projects within the POPs focal area and a sense of sequencing of which projects needs to take place.
- Increased attention needs to be paid to what projects are being undertaken in which programmatic areas within the POPs focal area and whether they are the effective in advancing the goals of the focal area strategy. New and better ways of doing impact evaluation were discussed over the last two days that could be very helpful.
- Research and analysis is needed to explore potential interlinkages between the POPs focal area and the other focal areas that provide cost-effective and operational advantages.
- Capacity building is needed to enable the generation of data and information and to make them available, relevant and useful for both MEA reporting and to serve as an environmental diagnostic for decision making.
- There is a need to consider how best to address chemicals issues beyond the Stockholm Convention particularly in relation to chemicals-related strategy priorities in the international waters and other focal areas.
- Science can and must play a bigger role in the forthcoming GEF-5 POPs focal area. Thus, increased interaction between the STAP and the Convention bodies and the Convention Secretariat will be important steps in making this happen.

61. The general discussion that followed included comments about data, particularly the continuing need to generate and collate relevant data despite the multiple investments made already to generate and to make data available to developing countries; the importance of working in a cross-cutting delivery mode due to the scarcity of resources available and the multiple intersections between climate change and the other focal areas; the need to reposition and to review the GEF in light of the proliferation of environment funds. Regarding knowledge management it was suggested that it merits a stronger role in the GEF, particularly as a replenishment tool, and if so how can the GEF Agencies and Conventions work together to achieve a successful knowledge management system?

62. UNEP suggested that it would be useful for STAP to think about the drivers for a science vision. These could be categorized as follows -

- Climate Change – the effect of natural resource management on climate change and the effect of climate change on natural resource management.
- Economic – production and consumption patterns in terms of resource efficiency.
- Science and technology
- Regional specificities.

63. In conclusion, STAP promised to work further on the details of its proposed science vision and to invite wide participation from GEF-related bodies in the development of the documents that would be presented by STAP to the GEF to inform the development of updated and new strategies for GEF-5.

## **Session 6 - Priorities for targeted research**

64. This session was moved to the last day to allow a better flow of discussion on the interlinkages between GEF-4 and GEF-5, which were the subject of Sessions 5 and 8.
65. N. Ravindranath (STAP) presented on targeted research on climate change adaptation and mitigation synergy in GEF programs. He suggested that GEF should consider programs that yield benefits for mitigation and adaptation, as well as other focal areas, because such programs could deliver a larger total global environmental benefit than the sum of benefits from an equivalent investment in single focal area projects. A role for STAP could be to help develop quantitative methods to demonstrate the benefits of synergy in projects addressing more than one focal area. This could help make projects more attractive for the GEF Council, donors and host countries.
66. The ensuing discussion focused on these issues –
- Climate change is a complex issue and could benefit from multi focal area approaches that connect the GEF-5 project cycle to the demands of people in countries. However, more robust and rigorous science is needed to justify multi focal interventions.
  - Mitigation and adaptation should not be treated as two separate silos, sustainable development depends on both.
  - RAF values were based on a GBI Index due for revision in July; thus, including LULUCF could be problematic in calculating the GBIs.
  - Within adaptation, agencies need a clearer vision. GEF-5 should look at the balance of support for autonomous and programmed adaptation and give weight to one or the other.
  - Multi-focal projects are difficult to implement and care should be taken when considering adding new program areas.
  - Adaptation has not been fully accepted by GEF Council for program funding and combining mitigation and adaptation in a single pilot study may be one way of demonstrating its usefulness.
  - Many projects are already multi-purpose and it may just be a case of reporting benefits better. For example, protected area interventions for biodiversity also yield climate change mitigation benefits (carbon sequestration), but there are no methods to quantify and report these benefits. STAP could help with such methods.
67. Michael Stocking (STAP) also presented on the modality of targeted research. Participants concurred that targeted research is a useful application in the GEF, but raised concerns about whether targeted research opportunities could occur under the Resource Allocation Framework (RAF).
68. In the discussion following the presentation members of STAP suggested that the GEF consider non-TR projects having TR elements embedded and justified appropriately, as a flexible and additional modality.

69. Bearing in mind the current state of targeted research in the GEF (little interest from recipient countries and GEF Agencies), UNEP encouraged STAP to look further into the following issues:
- What is targeted research – look at the scope of targeted research. Is there a need to have a research hypothesis?
  - Could targeted research be used more for emerging issues?
  - Could the timing of targeted research reviews be streamlined? If so, how so?
70. UNEP also asked its colleagues to consider how it could use targeted research to help investigate – respond to global environmental needs, given UNEP’s mandate to keep under review the global environment.

### **Closure of the meeting and next steps**

71. On Saturday morning, 12<sup>th</sup> April, The STAP meeting was closed by Yolanda Kakabadse, Chairperson of STAP, after remarks on behalf of the host by Maryam Niamir-Fuller, Director, Division of GEF Coordination, UNEP. The Chairperson of STAP thanked UNEP and also emphasized the spirit of partnership and the need to follow up the ideas that had been presented in a relaxed atmosphere by participants at the meeting.
72. Regarding the next steps planned by STAP; there was a large amount of useful information and discussion contributed by the participants at the meeting to take away and to further analyze, synthesize and report back to the GEF. STAP intends to provide its Science Vision for the GEF-5 as one product together with its full report on the meeting, complete with the proposed actions by STAP considered necessary for supporting the implementation GEF-4 in its remaining period.