

GEF Council  
November 16-18, 2010  
Washington, D.C.

Agenda Item 4

**REPORT OF THE CHAIRPERSON OF THE SCIENTIFIC AND  
TECHNICAL ADVISORY PANEL (STAP) TO THE COUNCIL**

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility  
11 November, 2010



## Report of the Chairperson of the Scientific and Technical Advisory Panel (STAP) to the Council

### Introduction

- 1) This Report to the Council combines the regular feedback on STAP's results achieved since the June 2010 Council Meeting with a set of observations and recommendations from STAP on GEF-5.
- 2) The Report comprises:
  - Recommendations to the Council;
  - STAP's project cycle activities;
  - STAP's Work Program for FY10;
  - Liaison with GEF-related Conventions;
  - Collaboration with the GEF Evaluation Office
  - Outcomes of the STAP Meeting October, 2010 and progress achieved against decisions of the March 2010 STAP Meeting.
- 3) The Council is also referred to recent STAP documents; including two published STAP advisory documents and others in progress:
  - The Evidence Base for Community Forest Management as a Mechanism for Supplying Global Environmental Benefits and Improving Local Welfare ([published – September 2010](#))
  - Environmental certification and the Global Environment Facility ([published – September 2010](#))
  - Manual for calculating GHG benefits of GEF projects: Energy efficient and low carbon transport projects
  - Advancing sustainable low carbon transport through the GEF
  - Enhancing Resilience to Reduce Climate Risks: Scientific Rationale for the Sustained Delivery of Global Environment Benefits in GEF Focal Areas
  - Recommendations of the GEF-STAP Cross-Focal Area Workshop: Approaches to Address Carbon Benefits in the context of Multiple Global Environmental Benefits in Implementing the SFM/ REDD+ Program in GEF-5.

### Recommendations to the GEF Council

- 4) In this, the first report of STAP to the Council of the GEF-5 period, we seek to draw to the attention of the Council a number of suggestions to strengthen GEF's performance as it enters the implementation phase of GEF-5 programming.
- 5) STAP has already highlighted the importance of cross focal area interactions ([GEF/C.39/Inf.10](#)). In addition, STAP notes that most environmental trends are increasingly exponential in nature. Many of the interactions are and will be more complex, and unpredictable, as a consequence. This makes achievement and durability of Global Environmental Benefits more dynamic and challenging. In addition, inevitably there will be surprises. STAP will advise of such developments on an ongoing basis.
- 6) The world is already committed to a significant level of climate change and adaptation is required, regardless of the level of mitigation efforts. STAP supports the GEF Evaluation Office conclusions on the Strategic Program for Adaptation (GEF/ME/C.39/4) and specifically its recommendation requesting GEF

to continue to carry on the mainstreaming of resilience and adaptation into the GEF focal areas as a means of reducing risks to the GEF portfolio. Post-IPCC (2007) literature highlights the increased climate risks to Global Environmental Benefits and even risks in the short term period (2020s and 2030s). Thus there is a need for recognizing potential climate change risks and its severity, and as necessary

- 7) In the GEF, the primary benefit of incorporating climate change resilience considerations in projects is to avoid climate risks and ensure the sustainability of Global Environmental Benefits (GEBs) from GEF investments. There is convincing evidence of climate change risks to Global Environmental Benefits of GEF Focal Area Objectives. Based on assessment of recent scientific literature and a consultation workshop, STAP wishes to make the following recommendations to GEF Council:
  - a) Climate change risk assessment and resilience measures should be mainstreamed throughout GEF-5 and in the project cycle (please refer to information document GEF/C.39/inf.18). It is recommended that the GEF Council support the use of GEF funds in this area to all relevant GEF-5 Focal Area Objectives, particularly those rated as highly vulnerable or located in climate-risk hot-spots, and to appropriate junctures in the project cycle to identify and assess the risks. The starting point should be where project proponents undertake a rigorous assessment of risk to GEBs from climate change. STAP recognizes that additional guidance is expected to be needed, and the format of PIFs and STAP's screening process may need modification. Further actions by STAP, outlined in point "c" below, will assist in providing the necessary tools and processes to implementing climate-resilient projects in GEF-5.
  - b) Global and regional assessments of climate change impacts and vulnerability profiles for GEBs should be constructed. STAP recommends that the GEF Council supports a detailed scientific assessment on climate change impacts, vulnerability, and resilience at the regional level, focused on threats to delivery of GEBs<sup>1</sup>. This study is not only needed in the current phase of the GEF, but will be essential in future strategy development for GEF-6.
  - c) STAP will provide the following products to assist implementation of the above recommendations:
    - i) Rapid Climate Change Risk Screening Tool;
    - ii) Impact and Vulnerability Profiles for GEBs along with illustrative resilience measures for broader climate risks to Global Environmental Benefits, based on assessment of current scientific literature.
- 8) Under the GEF-5 new Project Cycle arrangement, STAP is monitoring the implementation of the new processes for projects under different streams of the programmatic approach. On the one hand, STAP welcomes efforts to increase efficiencies in action and implementation. Concomitantly, STAP looks forward to ensuring that this approach is also supportive of appropriate independent scientific and technical review and quality assurance for the pre-qualified institutions.
- 9) Approved by the GEF Council in 1997<sup>2</sup>, Targeted Research (TR) projects have been supported in cases where goal oriented research is required to support GEF's Operational Strategy. Significant knowledge gaps remain, however the TR modality has been little used formally by GEF agencies. STAP is aware of only 18 TR projects that have been implemented since GEF-1, although informally targeted research components have been included in other projects. STAP has examined the reasons for the paucity of TR projects, most recently in 2007/08, including perceptions that the additional review processes for this modality adds to the burden of implementing agencies. STAP is of the view that the Targeted Research modality should be revisited in order to redefine its role in GEF-5, to ensure that TR is both results and

---

<sup>1</sup> Note: IPCC 2014 is expected to review the published literature and present an assessment of likely climate change risks. However, such literature-based assessments have limited utility directly to assess climate change risks and resilience measures for the GEF focal areas of Climate change, Biodiversity, Land degradation, SFM and International waters.

<sup>2</sup> <http://www.unep.org/stap/AdviceandPublications/TargetedResearch/tabid/2918/Default.aspx>

demand driven, efficient, and attractive for agencies and countries to use. STAP will draft an approach paper aimed at revising the terms of reference for “TR” or its replacement in the GEF. This paper will be an initial step of a process carried out in close collaboration with the GEF Secretariat and implementing agencies.

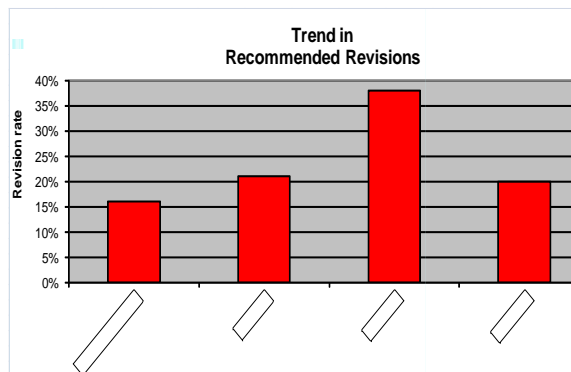
- 10) On the criteria for utilization of Focal Area Set Asides, STAP continues to emphasise that top level assessment criteria must continue to be satisfied, namely consistency with GEF Strategic Goals and transboundary/regional GEBs, while at the same time be incremental towards foundational national commitment to global environment benefits (GEBs) through the use of STAR resources. STAP also developed subsidiary criteria (see **Annex 3** of this paper), one or more of which should be fulfilled subject to the top level criteria being satisfied, and which address science based innovations and tools to assist GEF program delivery. In addition, STAP welcomes ongoing dialogue on this issue with The Council, Implementing Agencies, and the GEF Secretariat.
- 11) STAP has produced new advisory products since the June meeting, included in the list provided in paragraph 3 above, specifically:
  - a) The Evidence Base for Community Forest management as a Mechanism for Supplying Global Environmental Benefits and Improving Local Welfare;
  - b) Environmental Certification and the Global Environment Facility;
  - c) Advancing sustainable low carbon transport through the GEF: A STAP Advisory Document
- 12) STAP's advisory work during GEF-4 became more systematic and also more strategic. Recent advisory products have synthesized the advice given by STAP at individual PIF level in order to provide an array of tools which are intended to inform the GEF and its implementing agencies at a higher level in project and program design. It is intended that we use and continually improve these tools, building our knowledge base of actions that are effective and transformational across thematic areas and integrating this advice with the knowledge base of participating countries, GEF Agencies, Evaluation Office and Secretariat. STAP will continue to collaborate with all parts of the GEF to both survey and improve our knowledge management systems.
- 13) During the March 2010 STAP meeting in Rome, we were pleased for the first time to welcome Council Members as observers. This significantly enriched the discussions, providing new perspectives on how science advice can be used much further upstream to assist countries to test new program or project concepts. STAP continues to examine ways to expand its scientific networks, such as discussions with the International Council for Science (ICSU) as a potential partner in developing a regionally responsive science network.

### **Project Cycle**

- 14) STAP welcomes efforts to streamline the project cycle as we enter the fifth replenishment of the GEF along with the active commitment of the GEF Secretariat in engaging STAP in this review. The Panel was actively engaged in working with the GEF Secretariat in refining those elements of the GEF Project and Programmatic Approach Cycles which directly pertain to STAP, particularly Annex 11 “Roles and Responsibilities of STAP in the GEF Project Cycle”.

Nonetheless, STAP wishes to emphasize the importance of independent scientific and technical quality assurance at appropriate junctures in the project cycle, and will consider in particular how projects are handled in this regard under the two streams of the programmatic approach project cycle.
- 15) No Work Programs have been approved since our report to the June 2010 Council. In addition, no Targeted Research committees have been formed since the June Council meeting.
- 16) STAP continues to monitor trends in PIFs reviewed where revisions have been recommended (see Figure 1 below). While it is too early to draw any firm conclusions, over the past two years there was a tendency towards increasing numbers of PIFs where revisions were recommended by STAP. This

process may have begun to reverse of late, however additional data points will be required before any trends are apparent.



**Figure 1. Trend in PIF screening ratings by STAP**

- 17) STAP continues to be of the opinion that most PIFs only weakly convey a rigorous scientific (biophysical or socio-economic) or technical rationale and statement of the expected global environmental benefits of the project. STAP advice may assist in improving PIFs that have been recommended for revision, and STAP welcomes the opportunity to work with implementing agencies in this regard. Deficiencies in PIFs often include weak quantitative assessment of global environmental increments to be supported by the GEF, as well as insufficient descriptions of baselines.

#### **Results achieved within STAP’s Work Program, FY11**

- 18) Annex 1 details the status of STAP’s work program for FY11, and the results achieved to date. The list specifies that a number of activities were completed up to now including STAP publications on Community Forest Management (CFM), environmental certification, and sustainable low carbon transport (in press). Additionally, progress was achieved in a number of activities whose results will be completed by the second half of FY11. These include publication of a STAP Advisory Document on GHG accounting methodology for GEF transportation projects. These also include presentation for the next GEF Council meeting in 2011 of additional STAP advisory documents, specifically on the selection of POPs disposal technologies for GEF projects and foresight for emerging chemicals management issues, biofuel screening guidelines, and a carbon estimation and assessment framework for multiple Focal Areas.

#### **Liaison with GEF-related Conventions**

- 19) STAP continued to develop its work in depth with Secretariats and subsidiary bodies of the Multilateral Environmental Agreements that are supported by the GEF. This work included:
- a) CBD – participating in the global expert workshop on Biodiversity and REDD; the UNGA event on the international year of biodiversity; and the tenth Conference of the Parties to the Convention (COP-10)
  - b) UNFCCC – with the STAP Chair presenting a keynote address at Forest Day.
  - c) The Stockholm Convention – No formal collaboration to report for this reporting period.
  - d) UNCCD – reviewing the draft chapter “Progress report on the refinement of the set of impact indicators on strategic objectives 1, 2, and 3”. The chapter is aimed for the Committee on Science and Technology of the UNCCD, and to be discussed at their Second Special Session (CST S-2) in November 2010. The chapter raises the on-going efforts between the UNCCD Secretariat and the GEF Secretariat on aligning The UNCCD Strategy and the GEF Land Degradation Strategy for GEF-5. Specifically, STAP commented on, and contributed to, how the UNCCD and the GEF could continue to align their impact indicators.
- 20) The CBD, UNFCCC and UNCCD Secretariats all made presentations to the STAP workshop on SFM and REDD+ in September 2010 (please refer to the report of the meeting provided as information paper GEF/C.39/inf.19 to the 39<sup>th</sup> GEF Council meeting).

## **Collaboration with the GEF Evaluation Office**

STAP co-ordinated and provided inputs at the design and final stages of the evaluation regarding the Strategic Pilot on Adaptation (SPA). STAP is participating on the Technical Advisory Group of the in-depth evaluation of outcomes and progress made towards impacts by interventions funded by GEF and various agencies in the South China Sea Area, as part of the Evaluation Office evaluation of the GEF International Waters Focal Area.

## **Note on the STAP Meeting October, 2010 and progress achieved against decisions recorded at the October 2009 Meeting**

- 21) The Meeting of the STAP held in Washington DC in October 2010, attracted participants from GEF agencies, the UNCCD Secretariat, the GEF Secretariat and the GEF Evaluation Office. These meetings provide an opportunity for the GEF partners to exchange views with the Panel Members and to test policies for the work of STAP, as well as to review the results achieved, including draft products. Many of the results of this meeting have previously been noted under items 4 to 17 above.
- 22) The focus of the October 2010 meeting was on GEF-5 policies with significant scientific and technical implications. These included papers that were then being drafted on the project cycle including targeted research; monitoring and evaluation policy; results based management work plan; knowledge management; Criteria for Utilization of Focal Area Set Asides; and enhancing relations between the GEF and Conventions.
- 23) Annex 2 summarizes the present status of actions recorded against decisions of the previous STAP Meeting. Progress in addressing actions is generally satisfactory. In future, however, more emphasis will be placed on conducting broader "big picture" critical analyses within STAP's advisory work in the context of the GEF Program, along with undertaking associated strategies for communications and outreach.

## ANNEX 1. STAP Work Program FY11 record of achievement

### Corporate work

ACT. Nr.	Output / Product	Status
C#1	Analysis of GEF portfolio in each GEF Work Program for GEF Council	Ongoing task
C#3	STAP expert network access established and populated accessible through the STAP website	Internal listings generated by Panel Members and external network organizations used as resource for selection of experts. Accessibility under review; continuing task
C#4	Advice on how to strengthen social and gender components of GEF projects and programs	
C#5	Provision of advice on experimental and quasi-experimental project designs	In progress.

### Cross-Cutting work

ACT. Nr.	Output / Product	Status
XC#4	Scientific guidance to GEF Project 3449 Carbon Benefits Project (CBP): Modeling, Measurement and Monitoring (UNEP/World Bank MSP)	STAP continues to provide advice through the Steering Committee. The Committee met recently in September 2010, and agreed the project is current with all its deliverables. Several follow-up actions were identified at the meeting, including testing the carbon benefits project as a tool to gain the required landscape carbon information for a specific set of existing GEF projects so as to understand the needs of potential users.
XC#5	Scientific guidance to GEF Project 3224 Establishing Sustainable Liquid Biofuels Production Worldwide (A Targeted Research Project)	The project has produced a draft biofuel screening tool, which will be shared with STAP – as a member of the Steering Committee.
XC#7	Integrating Mitigation/Adaptation Synergies and Promoting Climate Resilience in GEF Land Degradation, Biodiversity, SFM/REDD+ and CC/LULUCF and International Waters Focal Area Projects and Programs	Report "Scientific rationale for reducing climate change risks and enhancing resilience in GEF focal areas for sustained delivery of GEBS" submitted as Information Paper for the GEF Council in November. Comments and recommendations provided to the GEF EO on SPA evaluation; ongoing task
XC#8	Advisory paper on endocrine disruptors Review of policies, innovative interventions, technologies and constraints for reducing releases of endocrine disruptors to aquatic environments.	TOR has been drafted and currently discussed by the Panel
XC#9	Cross focal area advice on Sustainable Forest Management, REDD-plus, and LULUCF as a means to protect carbon stocks and reduce GHG emissions	A workshop was held on September 1-2 2010 and recommendations arising were discussed at the October STAP meeting. STAP has committed to developing two specific advisory products.

### Biodiversity

ACT. Nr.	Output / Product	Status
BD#6	<b>A case study methodology</b> for application in GEF-5 for implementation of LO1; <b>Technical advice</b> on the application of the case study methodology; and Analysis of the results of case studies	Case study design has been completed and a mission is in progress in November 2010.
BD#7	<b>A review of the literature</b> that synthesizes global experience with the following question: "What are the human well-being costs and benefits of protected areas, how are these distributed, and how do they vary with governance, resource tenure arrangements, and site characteristics?"	A workshop on protected areas has been held in November 2010 as part of the initial scoping of this work, which is scheduled for FY11 and FY 12.
BD#8	<b>Ongoing learning about popular approaches</b> , including those identified under LO3, supported through advice on experimental and quasi-experimental project designs (as described under C#5).	No experimental designs have been proposed since the June 2010 Council meeting.

### Climate Change

ACT.	Output / Product	Status
------	------------------	--------

<b>Nr.</b>		
<b>CC#5</b>	1. Methodology for measuring GHG impact of transport projects funded by GEF 2. White Paper on low carbon sustainable transport	Work is completed, publications are in preparation.

### International Waters

<b>ACT. Nr.</b>	<b>Output / Product</b>	<b>Status</b>
<b>IW#2</b>	STAP report on Hypoxia	Following June 2010 2 <sup>nd</sup> Expert Consultation, a STAP Advisory Document on Hypoxia and Nutrient Reduction in the Coastal Zone is in preparation.
<b>IW#5</b>	Review of Areas beyond national jurisdiction	STAP will participate in deliberations to further develop GEF priorities for protecting marine biodiversity in areas beyond national jurisdiction.
<b>IW#6</b>	Advisory paper on restoring healthy oceans	Terms of reference are in development
<b>IW#7</b>	Advice as member of IW Impact Study Technical Advisory Group Membership	STAP is participating as a member of the Technical Advisory Group.

### Persistent Organic Pollutants

<b>ACT. Nr.</b>	<b>Output</b>	<b>Status</b>
<b>POPS #4</b>	Advice on POPs monitoring and measurements	Re-scheduled for September 2010 to August 2011

### Land Degradation

<b>ACT. Nr.</b>	<b>Output / Product</b>	<b>Status</b>
<b>LD#5</b>	Advice on Learning Objective #2	On hold until the appointment of the STAP member for land degradation
<b>LD#6</b>	Advice on indicators to inform GEF investments in the land degradation focal area.	On hold until the appointment of the STAP member for land degradation



## ANNEX 2. Summary record of progress achieved against actions arising from the STAP March 2010 Meetings

<b>Action. (numbered references refer to the Minutes<sup>3</sup> of the March 2010 meeting):</b>	<b>Progress achieved and proposed next action</b>
<b>Agenda item 4. STAP Progress Report</b> Decision 4.1: The STAP Toolkits approach was accepted; STAP should identify and prioritize advisory toolkit preparation tasks and consult its partners on rationale, transparency issues and preferred formats.	Discussed at October 2010 STAP meeting. STAP is developing a clear procedure for preparation, review, consultation, clearance and dissemination modes and pathways for a range of advisory products, attuned to GEF stakeholder needs.
Decision 4.2: STAP confirmed that it will continue to monitor/track its advice on PIFs. In addition, STAP will consider lessons learned from the PIF review process, including whether advice can be delivered effectively upstream before investments are made in PIFs.	Report on monitoring/tracking of PIFs to be included in all future reports.
Decision 4.3: STAP should examine its proposed role in the GEF's Programmatic Approach and test the result with the GEF partnership.	As noted in the discussion on the Project Cycle above, STAP wishes to highlight its concerns with the GEF Council with respect to the appropriate level of independent scientific review of projects generated through the programmatic approach cycle.
Decision 4.4: The STAP website (and other communication products) should have adequate science stature in the GEF community; STAP will consider what improvements are required.	Appropriate peer review processes are being implemented, along the lines used by peer-reviewed journals.
Decision 4.5: The location of future STAP meetings should be flexible according to need, subject to the norm that at least every other meeting will be held in Washington, DC.	The October 2010 meeting was held at the World Bank in Washington DC, the next meeting may be held at another GEF agency.
<b>Agenda item 5. Report to the GEF Assembly; GEF4 and outlook</b> Decision 5.1: STAP will revise its GEF Assembly paper to reflect the advice received.	Action completed
Decision 5.2: STAP will contribute to the forest financing side event and also offers to contribute to the POPs/chemicals side event organized by GEFSec in collaboration with Uruguay	Invitations were not subsequently received for STAP to contribute to these events
Decision 5.3: STAP, noting the interest shown by the USA in Monitoring, Reporting and Verification (MRV) will consider how to address the suggestion to assess MRV in programmatic approaches.	MRV approaches to assist members of the Council for use in their Convention discussions are under investigation by the Panel
<b>Agenda item 6. Presenting the Panel's advisory products</b> Decision 6.1: a STAP communication strategy is to be written including how to determine the target audiences for each STAP product/advice and the change outcomes expected to result from the product/advice.	The Panel considered a draft communications strategy at its October 2010 meeting, and the Secretariat agreed to distribute the draft strategy to seek further input from the Panel.
Decision 6.2: STAP will work with the GEF Secretariat to review emerging advice and decide on items for Council decision to establish "case law".	To date, no STAP products have been submitted for Council decision, rather as information documents. Each product will be reviewed on a case by case basis to decide on the need for Council decisions.
Decision 6.3: STAP will consider GEF Agency advice regarding the need to set overall priorities for STAP advice including for the Work Program and how to best to work on cross Focal Area integration among GEF Focal Areas, objectives, outcomes and outputs.	STAP will continue to engage GEF Agencies to enhance inter- focal area collaboration as well as in the development and implementation of its Work Program. Opportunities for GEF Agency collaboration will be built into each of its future Meetings.
<b>Agenda item 7. Knowledge Management in the GEF and GEF Monitoring and Evaluation</b>	Completed

<sup>3</sup> see:

<http://stapgef.unep.org/docs/Activities/Meetings/Mar2010/Report%20of%20the%20STAP%20Meeting%20March%208th%202010.pdf>

Decision 7.1: STAP agrees to provide an input into the review of the existing M&E policy to the Evaluation Office (on evaluation issues) and to the Secretariat (on monitoring and indicator issues).	
Decision 7.2: STAP will collaborate with the GEF Secretariat and agencies to survey existing GEF partner KM systems and to define a structure for GEF knowledge management	Action not yet started
<p>Agenda item 8. Review of STAP's Work Program for FY2011</p> <p>Decision 8.1: Taking into account the need to be clear about use and change expected from STAP advice, STAP will review the draft Work Program in the light of GEF-5 needs and strategic opportunities to advise the GEF including -</p> <ul style="list-style-type: none"> <li>▪ The need to advise on choices for regional and country programming informed by science, noting that STAP needs to balance long term and strategic advice with GEF-5 related tasks.</li> <li>▪ prioritizing the STAP Work Program: considering PIF/programmatic screening, Strategic Advice, GEF-5 related tool kit preparation, Science driven long term and GEF-wide issues (not immediately relevant to GEF-5)</li> </ul>	Advice taken into account in the STAP Work Program released as an Information Paper to the June 2010 GEF Council Meeting
Decision 8.2: STAP will consider setting up and promoting a "help-desk" to assist partners with their scientific design upstream of PIF finalization, provided that resources permit and that the role is first considered within a wider review of STAP's role in GEF-5.	Pending implementation of a service agreement with a international science body (or bodies).
<p><b>Agenda item 9. Role of STAP in LDCF and SCCF</b></p> <p>Decision 9.1: STAP will explore with the GEF Secretariat the need for an options paper to be presented to future GEF Council and LDCF/SCCF Council meetings, noting that STAP's proposed work on Climate resilience could be a starting point for a possible enhanced role on adaptation.</p>	Action not yet started

## ANNEX 3. STAP ADVICE ON MAKING GEF-5 FOCAL AREA SET-ASIDES OPERATIONAL

November 9, 2010

### Proposal

For use of Focal Area Set-asides (FAS) in GEF-5, outside the allocations for SFM/REDD+, convention and other commitments, STAP proposes the following criteria based on the latest scientific findings and innovative technologies. STAP's advice is to strengthen GEF-5 in the areas of (1) innovative technologies and solutions, (2) cross-focal area and (3) cross-scale (especially trans-national) work.

#### **A. Over-arching criterion which always has to be satisfied:**

- Interventions **consistent with GEF Strategic Goals**

#### **B. Subsidiary criteria, one or more of which should be satisfied**

##### Trans-national or regional criteria

- (1) Delivers **Global Environmental Benefits (GEBs) at a trans-national or regional scale** and incremental to foundational national commitment to GEBs using national STAR resources.
- (2) Encourages **strengthened and broadened cross-focal area and cross-scale activities** that will **deliver multiple GEBs** and **efficiencies** over conducting separate focal area activities on specific themes, e.g., resilience to climate variability and change, conserving marine biodiversity in ocean areas beyond national jurisdictions (ABNJ), reducing POPs emissions to the environment, and innovative sustainable land and water management
- (3) Research or knowledge generation that contributes to **global conservation knowledge of direct relevance to GEF Focal Area Objectives** such as by
  - a. **promoting innovation** in the GEF portfolio, e.g., synergistic biodiversity and carbon benefits
  - b. **developing tools, measures and monitoring systems** based on the latest science and technology for use by GEF agencies and their partners, e.g., Carbon benefit monitoring across GEF-5 Focal Areas or GHG benefit estimation in transportation projects
  - c. **addressing knowledge gaps constraining the design and implementation of GEF programs** and projects to deliver multiple GEBs, e.g., synergies between biodiversity and reduction of emissions from deforestation and degradation (REDD) schemes, preventing and remediating hypoxia in the coastal zone, understanding the opportunities in 'blue carbon', coral reef conservation and management
  - d. **addressing situations/interventions that should be avoided**, e.g., due to the likelihood of unacceptable negative outcomes for GEBs, and
  - e. **bringing faster and more efficient results** through building research capacity and sharing scarce research capacity **in GEF priority areas**, e.g., carbon monitoring in REDD/SFM projects
  - f. formal experimental or quasi-experimental designs that **test and evaluate the hypotheses embedded** in GEF project interventions.
  - g. generating **new knowledge through synthesis of existing knowledge** (like IPCC, IPBES processes) **to promote GEF Focal Area Objectives**
- (4) Innovative projects and partnerships with **global demonstration value and high likelihood for replication and generic application**, e.g., resilience to climate change across GEF Focal Areas at regional level

##### Country level criteria

- (1) Support for countries or groups of countries to develop **programmatic approaches** that address multiple focal areas and multiple GEBs, such as resilience to climate change and variability.
- (2) **Overcome constraints to country level investment in transformational activities**, e.g., in climate change technologies, increasing capacity to apply adaptive management tools in SLM, etc.

An illustrative example of a Focal Area Set Aside program could include: Initiating a global and regional assessment to identify climate change risks and *hot spots* for different GEBs at the regional level (e.g. sub-Saharan Africa, South Asia and large countries); for critical ecosystems (e.g., mountains, evergreen forests, Alpine grasslands, coral reefs, wetlands, water systems, semi-arid cropland); and for critical socio-economic circumstances (e.g. forest-dwellers; small-scale subsistence farmers; nomads and pastoralists), such as by

- Assessing current climate variability: short term (2030s) and long term (2070 to 2100)
- Designing illustrative climate change resilience measures for different risks to GEBs at the regional level.
- Proposing a strategy to mainstream resilience measures in GEF projects.