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Agenda Item 05

**REPORT OF THE CHAIRPERSON OF THE
SCIENTIFIC AND TECHNICAL ADVISORY PANEL**



Report of the Chairperson of the Scientific and Technical Advisory Panel (STAP) to the 49th GEF Council

Introduction

The following report is an update of highlights and the latest information on the implementation of the STAP Work Program that the Panel wishes to bring to the Council's attention. The report covers the period since STAP's last report to the Council in June 2015 until the present.

This GEF Council meeting takes place at a time of intensive international negotiations that will re-define the development and environment agendas for the coming decades. The Third International Conference on Financing for Development (FfD3) in July 2015 resulted in the adoption of the Addis Ababa Action Agenda (AAAA). The role of multi-stakeholder partnerships in advancing sustainable development was underscored, and for the first time at such a high political level the role of the GEF “in mainstreaming environmental concerns into development efforts and providing grant and concessional resources to support environmental projects in developing countries” was emphasized.

During the UN Sustainable Development Summit in September 2015, the STAP Chair was able to contribute to numerous high-level dialogues and discussions. STAP's overall focus was to underscore the GEF's important role as a delivery mechanism for environmentally sustainable development. The STAP Chair held bilateral meetings with the GEF leadership, the UNEP Executive Director and members of the UNEP Senior Management Team, the UN Secretary General's Climate Change Support Team working on Resilience, the Secretariat of the Climate and Clean Air Coalition to reduce short-lived climate pollutants, the Executive Director and representatives of Future Earth (a major international research platform dedicated to providing key knowledge to accelerate transformation to a sustainable world), as well as members of the business, NGO, and science communities.

Over the coming months, STAP will continue to invest in:

- Planning and implementation of the IAPs with a focus on indicators, research, monitoring and evaluation, and learning;
- Improving knowledge management in the GEF; and
- Assessing and planning for resilience of complex social-ecological systems.

This report includes the following sections:

1. STAP's Ongoing Contributions to the Integrated Approach Pilots (IAPs)
2. Observations on STAP's Screening of the GEF Work Program
3. Contributions to the Approach on Knowledge Management
4. Additional Ongoing Work
5. STAP's Engagement with the Conventions
6. STAP Work Program – Status of Delivery

1. STAP's Contributions to the Integrated Approach Pilots

With the design stage of the Integrated Approach Pilots (IAPs) now rapidly accelerating, STAP is concentrating efforts to ensure that clear theories of change are embedded in the planning and future implementation for these Programs, and that these strategies also directly contribute to the emerging approach for knowledge management in the GEF. A particular area of focus for STAP across all three IAPs is assistance in the identification of indicators of success in these complex undertakings. In addition, an important area of interest for STAP is assessing how to measure resilience in the complex social-ecological systems addressed in these Programs. STAP's specific contributions to the IAPs are described further below.

a. Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa

STAP has been closely involved in the development of the Food Security Integrated Approach Pilot (FSIAP), including participating in all four stakeholder and planning workshops (October 2014, February 2015, June 2015, and September 2015). STAP's major contribution is focused on providing guidance to applying the "Resilience, Adaptation Pathways and Transformation Assessment" Framework (RAPTA)¹ to assess resilience in the FSIAP. The lead agency for this effort is the International Fund for Agricultural Development (IFAD), with collaboration from UNDP, FAO, World Bank, UNEP, and CI.

The RAPTA is an approach designed to assess the resilience of complex social-ecological systems (including agro-ecosystems) to potential future stresses such as from climate change, as well as to provide a framework for informing project design and implementation. The Framework focuses on enhancing system resilience, and facilitating the planning for adaptation and transformation where appropriate. The approach comprises the following components:

1. Identification of the scope, scale, goal, and purpose of interventions;
2. Development of the theory of change;
3. System description: bio-physical and socio-economic aspects, and their linkages;

¹ <http://www.stagef.org/the-resilience-adaptation-and-transformation-assessment-framework/>

4. Assessment of system resilience and whether there is a need for adaptation or transformation;
5. Identification of intervention options and adaptation pathways;
6. Development of strategies/mechanisms for monitoring and assessment, learning and knowledge management.
7. RAPTA emphasizes multi-stakeholder engagement throughout.

Guidelines to apply the RAPTA are currently being finalized by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in collaboration with STAP and the GEF. CSIRO developed the RAPTA Framework noted above in collaboration with STAP following a workshop in Sydney in November 2014. A subsequent workshop was held in early September 2015 to refine RAPTA and commence development of the guidelines.

The draft guidelines were presented and reviewed by Agencies at the launch of the FSIAP in September 2015 in Addis Ababa, Ethiopia. The guidelines will assist in designing and implementing the FSIAP projects to enhance food security and resilience of agro-ecosystems, and identifying indicators for monitoring trends in resilience. The guidelines will be finalized by December 2015, and published to accompany the technical report². Several countries have used or are planning to use RAPTA in design of their projects (Malawi, Ethiopia, and possibly Uganda and Nigeria).

b. Taking Deforestation out of the Commodities Supply Chain

STAP participated in the Commodities IAP design workshop held 21-23 July in Washington, which was an important milestone in the development of this initiative. This meeting was led by UNDP (lead Agency) with collaboration from WWF, CI, UNEP, and the International Finance Corporation of the World Bank. The priority for STAP over the coming months will be contributing to the design of the applied research component of the program coordination project.

In collaboration with a Department for International Development (DfID) funded international research initiative hosted by the University of Michigan, STAP is examining how best to measure progress towards sustainability in the agricultural commodity sector given complex tradeoffs between forest conservation, livelihoods, and expected future growth in agricultural production. This effort is reviewing advances in methods, data collection, and tools within the scientific community, as well as the practitioner/development community, to identify useful indicators of success. An assessment of recent scientific literature shows that there is a real profusion of proposed indicators to categorize sustainability in commodity production, but little consensus as to which set of core indicators is the most adequate for avoided deforestation. Reasons for the lack of consensus and failure of academically proposed indicators to be embraced by the practitioner community include that they are not considered cost-effective and comparable across countries and commodities. A peer-reviewed paper will be published on the literature review and agency interviews.

² [O'Connell, D., Walker, B., Abel, N., Grigg, N. \(2015\) The Resilience, Adaptation and Transformation Assessment Framework.](#)

Initial findings of this effort will be presented at the Forests & Livelihoods Assessment Research Engagement (FLARE) Conference November 27-30 in Paris. STAP will also contribute to a Commodities IAP stakeholder engagement meeting taking place during this conference organized by the Agencies leading this Program. Over the coming months, STAP will work with implementing Agencies in the design of the Program coordination component – particularly with regard to the research and knowledge management aspects of the Program, as well as indicator development.

c. Sustainable Cities

Collaboration between the World Bank (lead Agency), the GEF Secretariat and IAP partners in early 2015 resulted in STAP contributing to the effort to streamline indicators at program and project level and acting as facilitators to establish working relationships between expert groups associated with urban indicator development. STAP also recommended a 2015 meeting of the IAP partners to ensure uptake of the tools and some alignment with the ISO Working Group 2 on Sustainable Cities (ISO/TC268/ WG2). STAP has continued to provide input to the work program in the development of the IAP, and will be attending the first meeting of the Consultative Committee of the IAP to be held in Paris on 8-9 October.

STAP has helped to facilitate engagement between the World Council on Cities Data (WCCD)³, the World Bank, and GEF Secretariat to work with the ISO Working Group experts on indicator development. The STAP and GEF Secretariats were also represented at the ISO meeting to understand advances made with the first ISO Standard on Cities, ISO 37120, how this standard is being augmenting with resilience indicators for cities, and how these could be utilized in the child projects of the IAP as they evolve.

Working Group 2 is also now considering efforts towards defining "Smart" and related "Resilient-City" indicators. This work includes recognition that urban areas seeking this designation need not rely on high-tech approaches in all cases, but could also involve tapping into local cultural knowledge and best practices. Knowledge, lessons, and best practices were also highlighted.

Of potential interest for follow-up by STAP is the mainstreaming of urban "metabolism"⁴ reporting, as the T268/WG2 is working closely with the University of Toronto on material flow indicators and resilience. The reason for this focus is that climate stresses are strongly emphasized in the current assessment standards, and it is felt that there is not enough attention paid to other key components of urban sustainability. The basic flows of energy, water, nutrients and materials through a city are proposed as the minimum critical components to be tracked to inform urban sustainability and resilience.

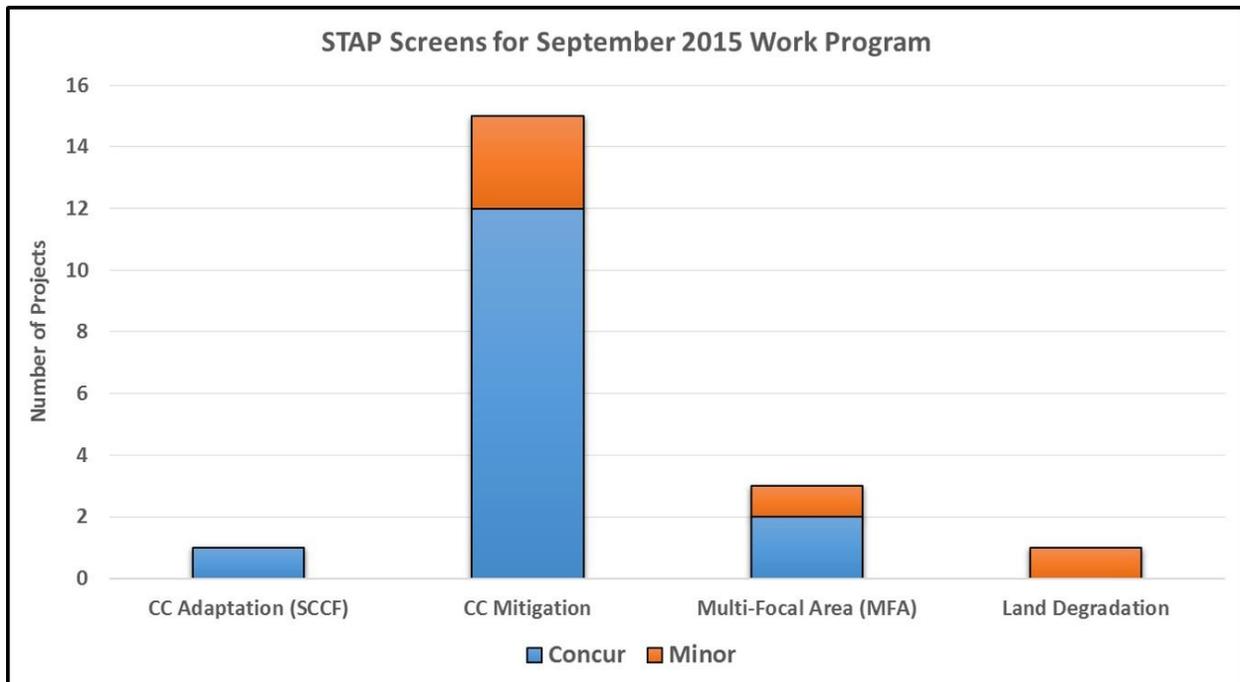
³ The WCCD is Chair of ISO/TC 268/Working Group 2. This effort evolved from the University of Toronto's Global Cities Indicator Facility: <http://www.cityindicators.org/>, <http://www.dataforcities.org/>

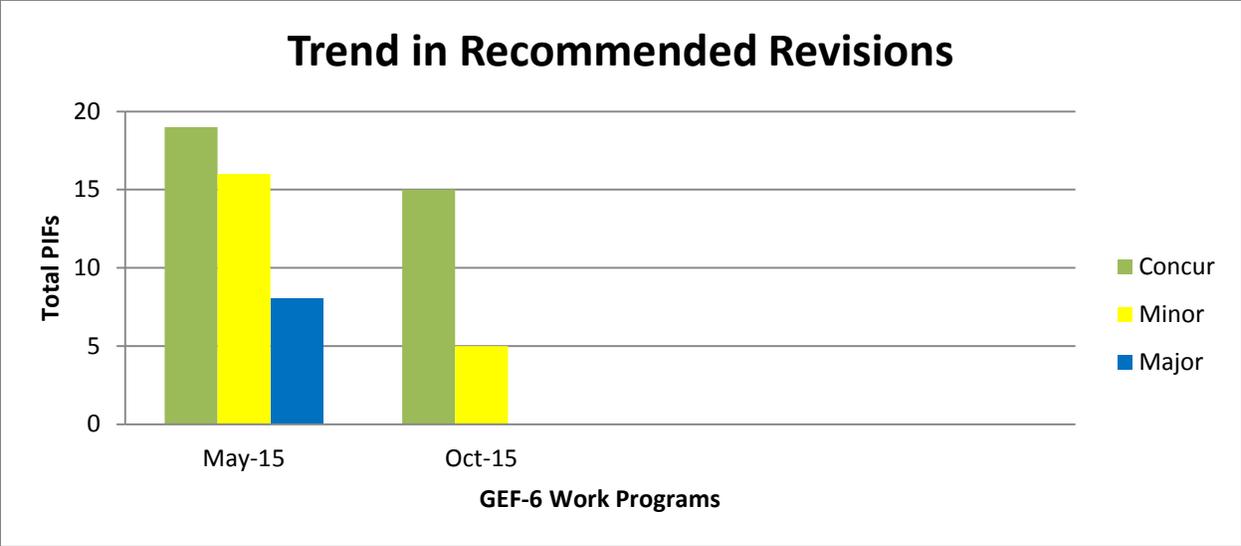
⁴ Urban metabolism is the study of material and energy flows arising from urban socioeconomic activities and regional and global biogeochemical processes.

2. Observations on STAP's Screening of the GEF Work Program

The October 2015 GEF Work Program has been largely focused on climate change mitigation through energy efficiency and renewable energy projects, the majority of which clearly reflect that GEF Agencies are striving to develop projects with transformational impact. The Panel wishes to stress the importance of proposing a clear theory of change at the PIF stage (to be revised as necessary during the PPG stage) as this is an important element in understanding the rationale and scientific validity of projects. In addition, the Panel has yet to see strong evidence of proposed knowledge flows from these projects to the GEF partnership, as well as the broader practitioner and scientific communities.

There are interesting examples in this Work Program of transformational approaches adjusted to unique country conditions such as de-risking renewable energy investments in Kazakhstan – a project which also stands out as a clearly evidence-based initiative. The innovative finance blending project in India developed by UNEP and ADB should build a strong national capacity for energy efficiency markets in India and in so doing make GEF investments more impactful. Moreover, projects that use GEF financing to support cutting-edge technologies such as promotion of new energy vehicles in China (e.g., use of vehicle-to-grid technology with strong engagement of municipal authorities), freight transport logistics in EBRD regional countries, and the World Bank's hydrothermal energy initiative in Indonesia, are also good examples of innovative approaches. While deficiencies remain in providing robust estimates of GHG reductions at the PIF stage, STAP is confident that these projects will assure the adoption of sound accounting methods and generate empirical data that can be verified during the PPG stage and later in the project.





3. Contributions to the Approach on Knowledge Management (KM)

An important objective for STAP in its Work Program includes working with the GEF Secretariat to strengthen corporate KM systems; collaborating with the GEF Independent Evaluation Office (IEO) for capturing insights and lessons from GEF experience; and supporting approaches that more strongly connect science to implementation. In the run up to the June 2016 GEF Council meeting, STAP will focus its efforts in three major areas: (i) continuing supporting strengthened KM for IAPs (noted in the IAP sections above); (ii) improving KM mainstreaming into the GEF project cycle, and (iii) on the development of an Open Data policy for the GEF. STAP will participate actively in the inter-agency working group on KM led by the GEF Secretariat, which meets at the close of this Council.

An important vehicle for advancing a coherent approach on KM in the GEF Program is the IAPs. Each IAP embeds KM, including a research agenda where desirable, as an essential function guiding implementation and ensuring consistent monitoring and assessment of impacts.

One of the important gaps which STAP’s investment in KM seeks to address is the lack of clear guidance for GEF projects. To respond to this issue STAP will develop a GEF practitioner guidance document on mainstreaming KM into project design, with an emphasis on definition of knowledge management and its role in the project cycle. The guidelines will compare the applicability of different tools, methods, technologies and practices used to address effective KM at *project-level*, capacity needs, barriers and success factors, and the role of Theory of Change as a project design and learning tool and its potential use to support project-level KM among others. Development of the guidance document will be undertaken in a collaborative manner engaging GEF partners and external scientific and KM practitioner communities. STAP expects to complete an information paper on this issue in time for June 2016 Council meeting.

In addition, STAP will also focus efforts to further consultations among GEF partners on the need to develop an “open data⁵” policy for the GEF, following the example of several GEF Agencies. Governments around the world have recognized the value of open data and many organizations have focused on open data’s potential to support development efforts⁶. More than 160 organizations worldwide are working to help deploy open data initiatives in developing countries⁷. Open data initiatives contribute to achieving the Sustainable Development Goals and support the principles of the U.N. Data Revolution for Sustainable Development, which emphasizes data availability, equal access to data, and the use of data for achieving development goals⁸. Data available from GEF projects are potentially vast but highly valuable. However, the Panel believes these assets should be open, transparent and easily accessible to the international community.

The first step towards this goal would be to develop an Open Data Policy within the GEF at corporate level, drawing on the experience in this area from the many governments and international organizations which have already adopted similar policies. STAP will be working with the GEF Interagency Working Group on KM to advance these discussions and considers this effort as an urgent and long overdue priority for the GEF partnership.

4. Highlights of STAP’s Ongoing Work

a. Black Carbon

The increasing recognition of the importance of reducing emissions of short-lived climate pollutants (SLCPs) in achieving short-term climate benefits, while simultaneously continuing efforts to mitigate long-term CO₂ emissions, provides the main impetus for this report. STAP initially drew attention to the role of SLCPs and their mitigation potential for the GEF Partnership in its 2012 report entitled “*Climate Change: A Scientific Assessment for the GEF*”. Subsequently, the GEF included SLCP mitigation in the *GEF – 6 Climate Change Mitigation Program*. It also sought STAP’s assistance in recommending how to embed the mitigation of SLCPs in the GEF project portfolio, as well as to provide guidance to Implementing Agencies on mitigation technologies and measuring protocols and methods. In response, the STAP “Black Carbon Mitigation and the Role of the Global Environment Facility”⁹ report provides in-depth information on one major SLCP – black carbon (BC). Emissions of BC, from a range of sources, cause a net increase in radiative forcing; their control could slow the rate of climate change in the near term. In addition, controlling BC emissions through carefully selected measures could support sustainable development through simultaneously improving air quality, human health, and food and water security, particularly for local communities. The report groups a number of specific recommendations to the GEF Partnership under the following areas:

⁵ Open Data refers to data that is freely available online for anyone to use and republish for any purpose. True Open Data should be in a machine-readable form, that is, a format that can be readily processed and analyzed by computers (Open Data for Sustainable Development, 2014. See footnote 8 below).

⁶ For example, the Open Data initiative of the US Government - <https://www.data.gov/>

⁷ [Partnership for Open Data Report, 2014; “Open Data in Developing Countries: State of the Art”](#)

⁸ <http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/8/999161440616941994/Open-Data-for-Sustainable-Development.pdf>

⁹ [GEF/STAP/C.49/Inf.02](#)

1. Mainstream black carbon (BC) mitigation measures into the GEF project portfolio, including the IAPs;
2. Support programs and stand-alone projects that focus on the reduction of BC emissions;
3. Measure, account for, and report on the amount of BC emissions avoided or reduced as a result of GEF-funded projects; and
4. Increase awareness and engage with stakeholders involved in national, regional and international efforts to address BC mitigation.

This report is a result of extensive collaboration with multiple partners, which also underwent an extensive review process by several technical experts and institutions, including members of the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) and GEF Agencies (World Bank, UNEP, and UNIDO). It represents an up-to-date and concise reference source on black carbon mitigation with actionable recommendations for the GEF partnership and beyond.

b. Green Chemistry - A holistic approach to curtailing Marine Litter from Plastics

The GEF-6 Chemicals & Waste Focal Area Strategy¹⁰ describes green chemistry as “...the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances”. It specifically calls upon project proponents to develop government, academic, and private sector partnerships to leverage the rapidly expanding research and development into green chemistry and improving chemicals management which is currently underway. The GEF-6 Chemicals programming also responds to the STAP Assessment of priority emerging chemical management issues of global concern not yet covered or adequately addressed by MEAs¹¹ that were identified by GEF recipient countries. Marine debris and plastics in the environment were listed among these priorities.

In its 2011 advisory document “Marine Debris as a Global Environmental Problem: Introducing a Solutions-Based Framework focused on Plastics”¹², STAP set about contextualizing the latest scientific knowledge about the causes of marine debris, as well as identifying opportunities for catalytic activities to address this challenge within the GEF program. The Panel identified a strong intersection between three of the GEF’s Focal Areas in this effort: Chemicals, Biodiversity, and International Waters including the private sector involvement.

STAP is working with the private sector and other stakeholders to develop recommendations for the GEF Partnership on opportunities for future green chemistry and waste management solutions, with an eye to mitigating the environmental toxicity threats posed by plastics. STAP will also seek to leverage knowledge and experience of GEF partners to mobilize up-to-date advice in this domain. The Panel expects that this effort will ultimately aid in design and development of GEF projects and joint collaborations that can serve as interventions to address marine debris issues and associated environmental toxicity challenges. A STAP advisory document will be developed to help support the design of GEF interventions in GEF-6 and beyond; STAP hopes to complete this work by May 2016.

¹⁰ <http://www.thegef.org/documents/gef-6-programming-directions>

¹¹ <http://www.stapgef.org/emerging-chemicals-management-issues-in-developing-countries-and-countries-with-economies-in-transition/>

¹² <http://www.stapgef.org/stap/wp-content/uploads/2013/05/Marine-Debris.pdf>

The recent International Conference on Chemicals Management in Geneva, in which the STAP Panel Member Ricardo Barra participated, emphasized the role of sustainable chemistry and the need to move upstream in the life cycle of chemicals to address systemic management issues. STAP and the GEF will contribute by bringing new ideas to address emerging policy issues raised by the Strategic Approach for International Chemicals Management (SAICM).

c. Source to Sea

STAP is working to develop a scientific paper outlining the Source to Sea (S2S) concept and also to prepare a GEF Guidance document on how to operationalize this concept in GEF International Waters projects and programs. In early 2016, STAP plans to organize a workshop to secure inputs from GEF partners on the Guidance document – and both outputs should be completed and available for the GEF Council in June 2016.

To date, a draft scoping paper “Governing key flows in a Source to Sea continuum: A conceptual view and theory of change” was completed in July 2015¹³. The paper analyzes the evidence of degradation of ecosystems in a continuum from the source to the sea and illustrates a lack of system understanding of key flows that are connecting sub-systems at different spatial scales and the challenges of addressing these through existing governance and management approaches on land, the coastal zone, and in the marine environment. Several drivers of degradation in the S2S continuum are described. The intensification of human activities to meet societal demands both up-stream and mid-stream can create a cascade of impacts on ecosystems expanding to the open seas. Climate change may cause further stress in the continuum. In parallel, human alterations and activities such as energy production, minerals extraction, and food production all expand offshore into the marine environment where management regimes are weak or nonexistent.

The paper concludes that new forms of coordinated governance are required to respond appropriately to the linkages and interdependencies within S2S systems. The paper also presents a conceptual view on how different segments in the Source to Sea continuum connect through key flows – defined in terms of water, sediment, pollution and material flows. Governance and management approaches for the identified key flows, along with a theory of change with a focus on sustainable socio-economic and ecosystems outcomes, are discussed. This paper is the result of extensive consultations as well as other experts including at two side events at the 7th World Water Forum in South Korea held April 12-17 2015 and at the 2015 World Water Week in Stockholm in August 23-28 2015.

d. Areas beyond national jurisdiction (ABNJ)

In implementation of the STAP Work Program Activity 2.9, a draft scoping paper “Governance Challenges, Gaps and Management Opportunities in Areas Beyond National Jurisdiction” was completed in July 2015¹⁴. The paper reviews existing legal and regulatory regimes governing environmental protection in ABNJ, along with existing institutions and their mandates and assesses how these relate to emerging ABNJ issues. In addition, the paper outlines governance gaps in environmental protection in ABNJ and the ability of existing agreements and institutions to expand their management scope to ABNJ. The second phase of the two-phased approach will

¹³ Currently under review

¹⁴ Currently under review

involve stakeholder consultations and provide input to the preparation of a comprehensive report with recommendations to the GEF on relevant interventions with regard to its emerging portfolio in areas beyond national jurisdiction.

e. Protected Areas and socio-economic co-benefits

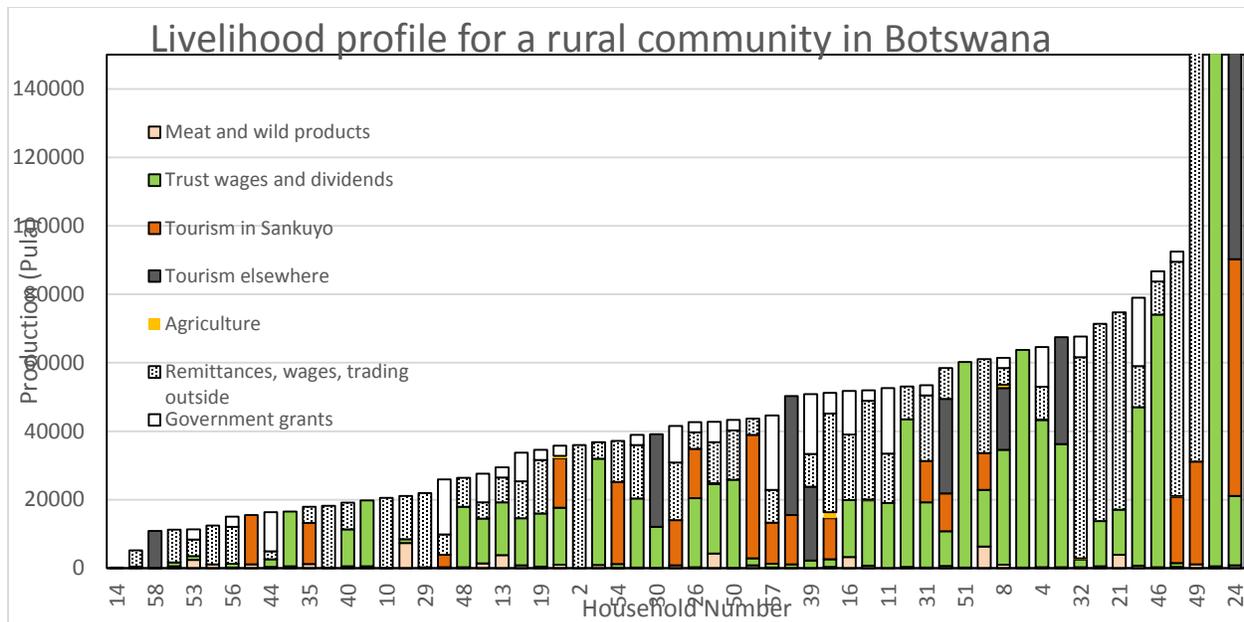
Since 1991, the GEF – in collaboration with its implementing agencies – has provided nearly \$4 billion in grant financing to support interventions in Protected Areas (PAs) development, PA systems management, and mainstreaming conservation efforts in adjacent production landscapes. During this time period, it has become increasingly accepted that biodiversity conservation and protected areas should at least ‘do no harm’ to local and indigenous communities and where possible contribute to poverty reduction¹⁵. And yet there is little empirical evidence to assess the social, cultural and economic impacts of protected areas. A recent STAP publication reviewed the existing literature on this topic and found that while the evidence base provides a range of possible pathways with regard to impacts of PAs on human well-being (both positive and negative), it provides very little support for decision making on how to maximize positive impacts or minimize negative ones¹⁶.

To address this challenge, STAP is developing operational guidance to assist the GEF Partnership to measure the socio-economic impact of GEF protected area project interventions. As part of the process, STAP is currently testing several methods used to assess the socio-economic impacts of PAs that could be tailored to GEF-supported projects. The purpose is to better understand both the positive and negative impacts of a PA on the communities found in and around the designated area, in order to maximize the former and minimize the latter.

The first method that could be potentially applied to GEF projects is a relatively standardised household livelihood assessment. This requires a sample size of +- 150 to provide a solid baseline for understanding and planning with communities, and also for a comparative study in approximately 5 years. The result will be report of household demographics, education, food and nutrition, and a household/community production profile which details the contribution of natural resources, agriculture, wildlife, jobs, social grants, and other sources of income to the village economy. An example of one such study in a community in Botswana is provided below, illustrating the diversity of household livelihoods, but also that wildlife – particularly through tourism – contributes very significantly to this community.

¹⁵ [Schreckenberg, K., Camargo, I., Withnall, K., Corrigan, C., Franks, P., Roe, D., Scherl, L. M. and Richardson, V. \(2010\) Social Assessment of Conservation Initiatives: A review of rapid methodologies, Natural Resource Issues No. 22. IIED, London.](#)

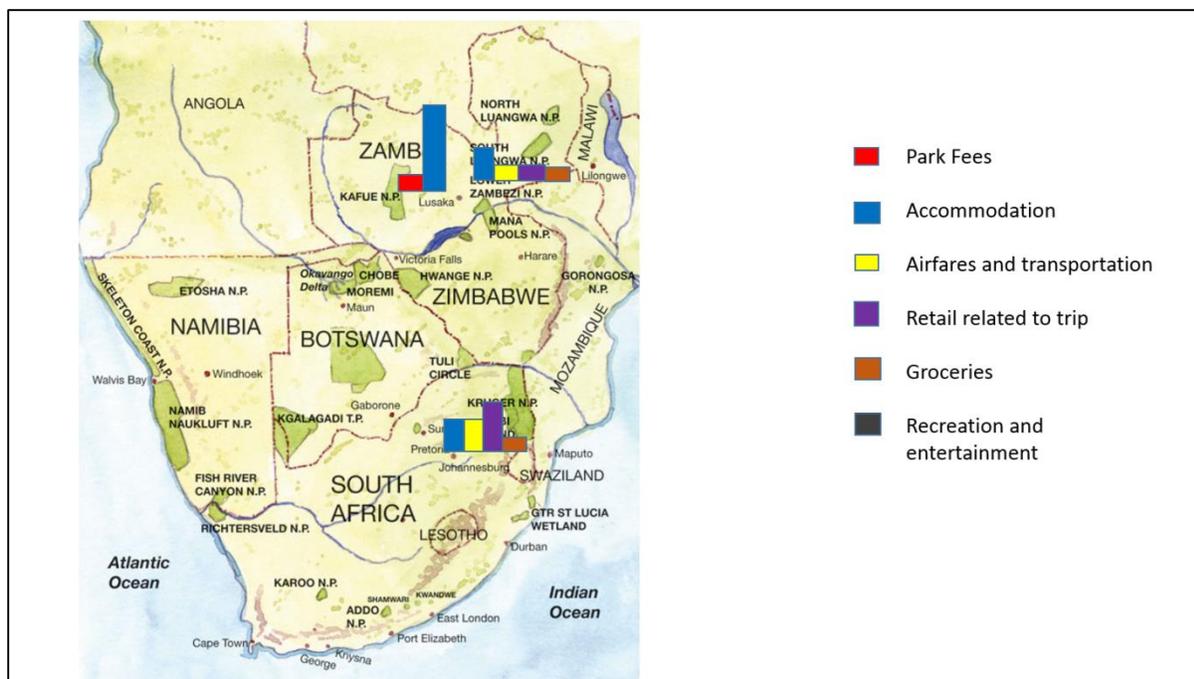
¹⁶ [Pullin, A.S. et al. \(2014\). 'Assessing the Effects of Terrestrial Protected Areas on Human Well-being: A STAP Advisory Document' Global Environment Facility, Washington, D.C.](#)



The second method currently under development and in ‘testing phase,’ is the Social Assessment of Protected Areas (SAPA), developed by the International Institute for Environment and Development (IIED). The SAPA is based on a rapid, relatively low-cost methodology for assessing the positive and negative impacts of a protected area (PA) on communities living within and around it. It is based on a process with eight discrete steps which within 3–6 months take the assessment to the point of generating results and recommendations. This is followed by two further steps – action planning by the relevant stakeholders and, finally, communication of results and proposed action and monitoring plans. The SAPA methodology can be applied to any type of PA, regardless of its governance type and management category. In June 2015, the STAP member for biodiversity and a member of the STAP Secretariat travelled to Kafue National Park in Zambia to help IIED and students from Copperbelt University (Zambia) to test SAPA in three communities located near KNP and associated Game Management Areas. The SAPA uses a multi-stakeholder approach to ensure that key stakeholders are fully engaged in the design, interpretation of the results and development of recommendations¹⁷. In addition to the SAPA, STAP intends to examine two other methods: detailed livelihood surveys and financial value chains to determine the applicability to GEF PA projects.

The third method that is being developed, led by UNDP, focuses on the impact of tourism expenditure on the local, national and global economy. STAP expects to be able to illustrate the type (vehicles, wages, etc.) and geographic location of expenditure related to tourism, as well as to analyse the financial and social profitability of tourism enterprises using standard Policy Analysis Matrix methodology. The following figure illustrates expenditures of a visitor originating in South Africa on his way to South Luangwa National Park in Eastern Zambia.

¹⁷ [Franks, P., D. Roe, R. Small, and H. Schneider. 2014. Social Assessment of Protected Areas: Early Experience and Results of a Participatory, Rapid Approach. IIED Working Paper. IIED, London.](#)



The result will be a short guidance document with three to four appendices in the form of manuals describing how to implement the different methods described above in practice.

The draft outline of the STAP guidance document will be delivered to the GEF Secretariat in February 2016 with the goal of finalizing the report for Council in June 2016. Results and documentation will be shared at the IUCN World Conservation Congress (WCC) in Hawaii in September 2016.

f. National Adaptation Plans

National Adaptation Plans (NAPs) are regarded as an important means for mainstreaming and scaling up action on adaptation. The GEF has been urged by the Conference of the Parties of the UNFCCC to support the NAP process for all developing countries. The Least Developed Countries Fund (LDCF) is now receiving project concepts (PIFs) for NAP projects to be implemented in several LDCs. Given the need to develop guidance for GEF interventions in this area, STAP has been preparing a technical report that examines different institutional models and approaches for mainstreaming adaptation at the national level. The comparative analysis demonstrates that while countries have adopted different strategies based on their particular national circumstances and characteristics, a number of “building blocks” may be identified as the elements of robust institutional arrangements for adaptation. These include aspects such as governance and coordination structures; enabling policies, regulations and legislation; institutional and human capacity development; strategies for finance; a robust science-policy interface that includes the generation and use of climate information; and monitoring & evaluation systems. National adaptation planning should also have extensive processes of stakeholder engagement.

STAP presented these early findings at the 7th meeting of the Adaptation Committee of UNFCCC in Bonn, Germany, in February 2015. In response to these findings, the joint workshop of the Adaptation Committee and the LDC Expert Group that was held in April 2015 was structured around these building blocks. In this workshop, experts and practitioners reported their experiences, best practices, and lessons learned based on each of the key elements. The STAP technical report is being finalized after a round of review and consultation, and will include recommendations for the ways in which the GEF could support the NAP process and national adaptation planning in recipient countries.

g. The scientific basis for measuring, monitoring and evaluating adaptation.

Climate change adaptation is an emerging area where robust and empirically validated intervention approaches and modalities based on sound science are needed. Monitoring, evaluating, and learning from adaptation actions is particularly important for developing countries in order to identify effective, efficient measures and allocate scarce resources to those actions that are most likely to increase resilience to climate risks, and also support short- and long-term development objectives. Evidence-based results are required to guide policy responses, design adaptation interventions, and scale up actions. Monitoring and evaluation (M&E) methodologies also need to be cost-effective so that they are viable within budgetary constraints, and operationally implementable. After extensive consultation with the GEF Secretariat, the GEF agencies, and the UNFCCC, and in collaboration with UNEP's Programme of Research on Vulnerability, Impacts and Adaptation (PROVIA), three technical papers that address different aspects of measuring, monitoring & evaluating adaptation have been commissioned. These papers address issues that include:

- Monitoring and Evaluation (M&E) for “upstream”, institutional and programmatic interventions – such as support for the National Adaptation Plans (NAPs);
- Connecting M&E across scales to establish two-way linkages between national level actions and local impacts and benefits; and
- Drawing lessons from the broader space of development programs that have addressed mainstreaming issues.

First order drafts of these papers are currently under review and the papers are expected to be finalized before the end of the year. Preliminary findings from this work have been presented to key stakeholders including the UNFCCC Adaptation Committee (at its 7th meeting in February 2015) and have been well received. Some of the key messages include: the need for M&E systems to support learning and recognize “intelligent failure” so that lessons can be used to inform future investments (while recognizing the tension with donor accountability and existing systems that are highly incentivized to demonstrate achievements), moving from a donor driven project level M&E to systems of M&E that are country owned and sustained, and balancing between the need for aggregation and comparability versus the need to preserve contextual detail when selecting indicators and metrics (qualitative and quantitative indicators). At the conclusion of this work, STAP expects to publish the technical report and produce a guidance / summary document.

5. STAP's Engagement with GEF-related Conventions

a. UNCCD CoP 12 (Oct. 12 – 23)

In partnership with UNDP and CSIRO, STAP organized two side events at the Twelfth Session of the Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD CoP 12). The first event focused on resilience of social-ecological systems, featuring the “Resilience, Adaptation Pathways and Transformation Assessment” Framework (RAPTA). Presenters outlined how the framework could be used to support the UNCCD reporting requirements through the development of narratives that complement quantitative indicators. Additionally, food security and climate change adaptation are two specific goals of the proposed Sustainable Development Goals for which strengthened resilience of agro-ecosystems is identified as relevant. The outcomes of the side event will serve the intersecting goals of the Conventions in assessing progress in enhancing resilience of terrestrial ecosystems and agro-ecosystems to deliver global environmental benefits, and support the sustainable development agenda.

The second event addressed current satellite data products and associated methods that have been used and/or are being proposed to assess land degradation and desertification within the context of the needs of the UNCCD and the GEF's Land Degradation Focal Area. This event drew on STAP's report on “The Use of Normalized Difference Vegetation Index to Assess Land Degradation at Multiple Scales: A Review of the Current Status, Future Trends, and Practical Considerations”¹⁸. The session focused on better understanding the needs of countries that use satellite-based data products currently, or plan to in the future, to map changes in land cover and analyze the causes and consequences of land degradation at the national and sub-national level. The National Aeronautics Space Agency, the European Space Agency, the European Joint Research Centre, and the International Fund for Agriculture and Development participated in the event.

b. SAICM Fourth Session of the International Conference on Chemicals Management (ICCM4) (Geneva, Switzerland, 28 September – 2 October, 2015)

The Strategic Approach to International Chemicals Management (SAICM) seeks to bring a new coherence to the waste and chemicals cluster. With the SAICM sunset date set at 2020, ICCM4 marked a major milestone in the implementation of this strategy. Stakeholders attended ICCM4, in part, to identify remaining challenges and adopt strategic decisions to enable the international community to achieve the 2020 goal of the Johannesburg Plan of Implementation¹⁹, and position themselves to be part of the post 2020 planning anticipated to begin in earnest at ICCM5. The Conference also sought to look at regional and sectoral implementation in order to address emerging policy issues. The most notable emerging issues were:

1. Nanotechnologies and Nanomaterials: Taking stock of existing initiatives for the safe development of nanotechnologies around the world, finding and creating synergies, laying the road for the future;

¹⁸ <http://www.stapgef.org/stap/wp-content/uploads/2015/05/Final-report-The-use-of-NDVI-to-assess-land-degradation-G.-Yengoh-et-al..pdf>

¹⁹ Johannesburg Plan of Implementation http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf

2. Chemicals in Products: The meeting saw adoption of the chemicals in products work plan, update of the ongoing pilot project which focused on industry and particularly the textiles industry, and promotion of a heavy focus on transparent sharing of information by stakeholders throughout the chemicals life cycle so that appropriate risk analysis can be undertaken at any point;
3. Endocrine Disrupting Chemicals (EDCs): The long negotiated inaugural EDC project design was presented for adoption at this meeting, a significant deliverable since the criteria to identify EDCs has been delayed for several years due to lack of agreement on criteria by regional groups and experts;
4. Highly Hazardous Pesticides: There was a focus on building the Alliance to phase out highly hazardous pesticides. UNEP and FAO have been very active here, as well as civil society;
5. Toxic Substances in Electronics – There was update on the advancement of projects, implementing the new Global Plan of Action activities;
6. Persistent pharmaceutical pollutants - proposed as an emerging policy issue.

At the meeting, STAP contributed to the discussions identifying the priorities above, and activities to address them. As relates to the GEF Program, these emerging issues all fall under Chemicals & Waste Strategic Priority 1, and the meeting provided important insight into progress made on piloting innovative and environmentally safe reduction and elimination technologies, on post 2020 planning, as well as the key stakeholders and experts involved. Of particular interest was the increased attention being paid to upstream hazardous chemicals used in the production of electronics versus the traditional end-of-pipe focus that is typical in many GEF projects.

6. STAP Work Program – Status of Delivery

Please see table below.

STAP WORK PROGRAM FOR GEF-6 – STATUS (September, 2015)

Objective 1: Support cross-focal area synergies and analyze trade-offs, including in the context of IAPs					
	Task/Activity	Description/Notes	Expected Outputs	Timeline	Status
NEAR TERM (beginning 2014)	1.1 Contributions to the Commodities IAP	This entry in the STAP work program will be further developed as planning for individual IAPs advances	<p>Support for development of IAP, including advisory products, pilot design, and modalities for extraction of knowledge, complementing the indicator work.</p> <p>For the Commodities IAP, STAP has tentatively identified the following outputs:</p> <p>a) Development of metrics and indicators to support program monitoring. Specifically, attributes for identifying and evaluating appropriate areas for commodity production and multi-attribute frameworks for evaluating and assessing production practices.</p> <p>b) Contribute to the development of scenarios for future commodities demand that will be helpful to inform future efforts for scaling up / replicating the IAP in GEF-7 and through other (non-GEF) mechanisms.</p> <p>In addition, STAP will support the identification of learning objectives and program assumptions for testing. This may include the development of a research program for the IAP, and will contribute to knowledge management and tracking success.</p>	Nov 2014 – June 2016	<p>STAP has participated actively in all planning meetings to date, including the most recent coordination meeting in July 2015. This has directly led to agreement amongst partners to create budget lines in the IAP administrative budget for indicators development and M&E, along with funds for research/learning within the IAP.</p> <p>STAP commissioned a review of scientific journal articles (currently under review) which illustrated the very limited agreement about which sustainability indicators to use to measure progress in this domain. The review demonstrates that almost 300 different indicators have been applied by scholars to assess the sustainability of commodity agricultural production, albeit with the majority of indicators derived from analyses of ecological process. This review will be finalized and available by the end of November, 2015.</p> <p>Next Steps: STAP will work with Agency partners to develop suggested research criteria and approaches for the IAP coordination project.</p>
	1.2 Contributions to the Cities IAP	This entry in the STAP work program will be further developed as planning for individual IAPs advances.	STAP will contribute to the development of metrics and indicators to support program monitoring, and has tentatively identified the following	Nov 2014 – June 2016	

			<p>outputs:</p> <p>a) Assessment of the outcomes of the WCCD 20 city pilot with Global Cities Initiative (GCI) to help monitor cities (of various sizes and income levels), for the GEF pilot. Areas of problematic reporting and capacity building needs could also be identified.</p> <p>b) Work with GCI/WCCD statisticians to generate 5-7 indices (e.g. on resource efficiency, carbon footprint, security, well-being) that can help benchmark investments and performance for both the GEF and the selected cities involved. Such indices will be a platform for guiding policy and investment, and also help bench-marking performance of such.</p> <p>c) Assist in pilot city IAP design, where requested, to help in the use of the GEF cities indices, ensure that knowledge asset generation is properly embedded, and identify capacity building needs as related to index utilization.</p> <p>In addition, STAP could support the identification of learning objectives and program assumptions for testing. This may include the development of a research program for the IAP, and would contribute to knowledge management and tracking success.</p>		<p>Starting from the June 2015 Council, the STAP engaged the new World Bank IAP Coordination and the GEF Secretariat focal points, to help chart the way forward in getting the advice gathered from the working groups embedded in a draft Results Based Framework. During the summer, there were also efforts made to put the IAP colleagues in touch with the ISO/T/268 Working Gp 2 (Sustainable Cities) Chair, Patricia McCarney of the World Council on Cities Data, to look at ways to collaborate and exchange information. It was agreed that the October 5-9 2015 ISO meeting on Sustainable Cities in Paris presented a good opportunity for initiating such coordination. The World Bank initiated an IAP stakeholders meeting October 8-9 in Paris, and the ISO working group will send representatives to the IAP meeting, while GEF Sec and STAP will sit in and present the IAP work on the first part of the ISO Working Group meeting.</p> <p>The STAP has submitted comments on the draft Results Framework document, including potential ways in which to ensure that the child project level indicators feed into the program level, qualitative indicators.</p> <p>Next steps: The STAP will explore potential areas for collaboration with the University of Toronto on urban metabolism indicators, in a bid to track basic flows of energy, water, nutrients and materials through a city, and potentially permit a flow of information between the Commodities and Food Security IAPs.</p>
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<p>On-going</p>	<p>1.3 Contributions to Agro-ecosystem resilience and Food Security IAP</p>	<p>The activity on this IAP aims to enhance the efforts of the UNCCD, CBD, UNFCCC, as well as the GEF on ecosystem resilience and food supply. Scientific methods will help reinforce the coherence between the Conventions' and the GEF's monitoring of land-based adaptation and ecosystem resilience. This effort also supports the GEF's integrated approach on Food Security.</p> <p>Two sub-activities will focus on:</p> <p>a) An analysis of the concept of agro-ecosystem resilience, including a framework for indicator selection.</p> <p>b) A review of remote sensing- based metrics that can be used to assess land degradation at the national and sub-national levels.</p>	<p>a) Improved harmonization between the Conventions' monitoring and reporting of common goals and objectives on land-based adaptation and ecosystem resilience, including selection of indicators for cross-cutting projects in the land sector.</p> <p>b) Development of the results-based management for the integrated approach on "Sustainability and Resilience for Food Security in Sub-Saharan Africa".</p> <p>These outputs will include:</p> <p>i) A synthesis of the scientific understanding of resilience in agro-ecosystems.</p> <p>ii) A conceptual framework on selecting indicators for assessing agro-ecosystem resilience.</p> <p>iii) A critical review of Normalized Difference Vegetation Index (NDVI), and other remote sensing-based indices for global assessment of land degradation status and trends, and for monitoring ecosystem dynamics.</p>	<p>July 2014 – Dec 2015</p> <p>Milestones</p> <p>Technical meeting in November 2014 in Sydney, Australia.</p> <p>Science meeting in México City, Mexico, in March 2015 linked with the UNCCD Scientific Meeting</p>	<p>A report on "The Use of Normalized Difference Vegetation Index (NDVI) to Assess Land Degradation Status and Trends at multiple scales" was completed in January 2015. A description of the report was included in the STAP's Chair's Report to the Council in June 2015.</p> <p>The report was used to inform a GEF medium-sized proposal on "Enabling the use of Global Data Sources to assess and Monitor Land Degradation at Multiple Scales". The proposal seeks to compare the suitability of satellite-based remote sensing methods and products for the assessment of land degradation.</p> <p>Additionally, the report was referenced in the program document for the IAP on "Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa" as a source of technical information on the use of NDVI as a proxy for land cover. (Land cover will be used as an indicator of global environmental benefits, and NDVI (among other vegetation measurements) will be used as a proxy.)</p> <p>For next steps, a paper based on the NDVI report will be published in early 2016 by SpringerBrief. STAP and the GEF Secretariat will be asked to review the draft before the paper is published.</p> <p>A second report on "The Resilience, Adaptation and Transformation Assessment Framework: from theory to application" under this activity was completed in February 2015. The report was launched by Monique Barbut, UNCCD Executive Secretary, at the UNCCD Scientific Conference in March 2015.</p> <p>For next steps, it is anticipated that the framework will be used to assess resilience in</p>
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					<p>one, or more, child projects of the IAP. Interim guidelines are being developed to support the application of the resilience framework. The draft guidelines were presented and discussed with project stakeholders at the IAP food security meeting in September 2015. The guidelines also will be discussed with the UNCCD science and policy community at the UNCCD's CoP 12 in October 2015. Next Steps: By November 2015, the interim guidelines will be completed.</p> <p>A side event on the framework will be organized at the UNCCD CoP 12 in October 2015. Event proposals that discuss social-ecological resilience and the resilience framework as an assessment tool also have been submitted to the Global Landscape Forum (5-6 December 2016) and the Civil Society Forum of the UNFCCC CoP 21.</p> <p>At these events, STAP expects to receive input on the resilience framework from the scientific and practitioner communities, as well as link its work to the UNCCD and UNFCCC science-policy forums.</p>
LONG TERM (beginning 2016)	1.4 Science of Integrated Approaches and Multi-focal area/multiple-benefit projects or programs	This activity aims to support GEF IAPs, future and emerging work, support for MFAs, as well as enhance the scientific understanding of multiple benefit approaches.	The Panel is currently discussing with the GEF Secretariat and partners the best thematic focus of this activity. STAP is currently supporting development of metrics and indices in all three Integrated Approaches. The Panel will identify specific multi-focal issues that span across multiple areas where there is a demand. These may include land degradation, adaptation and transboundary freshwater in Africa; forests and climate change mitigation in the Amazon Basin; and REDD+.The Panel will also seek	July 2016 – June 2018	<p>The Chair of STAP is working with Panel Members and others to prepare a concept for a special issue of World Development (http://www.journals.elsevier.com/world-development/). This would highlight research and assessment undertaken within the IAPs and similar integrated and multi-focal programs. Estimated delivery – Jan. 2017.</p> <p>In addition, a concept is being developed between the SETAC Advisory Group on Sustainability and the STAP, to explore having a special platform session at the November 2015 SETAC North America Meeting in Salt Lake City</p>

			opportunities to publish the findings from this work in scientific journals, and/or in succinct policy or operational briefs for the GEF partnership.		Utah. The STAP Chair would co-chair the platform session with the AGS, with an overall eye to showcasing the IAPs, highlighting the areas in need of further research and thinking, and ultimately enlarge the network of scientists and researchers who can contribute thoughts on the IAPs and sustainability in general to GEF-6. GEF Sec has also been engaged and will help fine tune the session concept and planning, should it be accepted by the SETAC Committee.
	1.5 Enhancing climate resilience of GEF interventions, and enhancing synergies between climate resilience and GEF interventions for GEBs	In earlier work, STAP has provided guidance regarding screening for and identifying climate risks for GEF interventions. STAP has also indicated the need to move from more reactive “climate-proofing” to proactive approaches that seek multiple benefits – connecting the generation of GEB’s with strengthening resilience and climate change adaptation. Current scientific thinking on adaptation as reflected in the IPCC’s Fifth Assessment Report also emphasizes the importance of mainstreaming and integration. STAP will seek to bring these new advances in thinking to practical and actionable guidance for the GEF.	STAP will examine the utility and applicability of the range of climate risk screening tools currently available. In collaboration with the GEF Secretariat and agencies, STAP will develop a framework that could be used for identifying appropriate risk management approaches that can enhance resilience. Areas will be identified in consultation with the GEF Secretariat and GEF Partners that could support climate resilience within focal area projects, multi-focal area projects, and IAPs.	July 2016 - June 2018	Work has not yet begun on this task, although it is related closely to work underway in 1.3 above.
	Task/Activity	Description/Notes	Expected Outputs	Timeline	Status
NEAR TERM (beginning 2014)	2.1 Biodiversity - Assessing the Socio-Economic Impacts of Protected Areas	Following on from the STAP publication “Assessing the Effects of Terrestrial Protected Areas on Human Well-Being”, this effort will identify how to augment the	a) Operational guidance document for measuring the socio-economic impact of GEF protected area project interventions.	July 2015 – Dec 2016 <u>Milestones:</u> -Draft outline of the	STAP is collaborating with IIED and Copperbelt University in Zambia to test SAPA in two GEF protected areas to gather information and determine how the process can be tailored to meet the needs of the GEF and GEF Partnership. Next steps: Prepare draft guidelines for review

		design of GEF PA projects so that when they are intentionally designed to also provide socio-economic benefits in addition to global biodiversity benefits that the projects generate evidence that these benefits were or were not responsible for their generation.	This will include three specific methods that will have been tested, described and included as annexes to the main report. These methods include: <ul style="list-style-type: none"> • Detailed livelihood surveys • Social assessment of protected areas (SAPA) process • Financial value chain method These methods will build upon and help implement the guidance provided by STAP in the publication "Experimental Designs in the GEF", Paul Ferraro, May 2012.	guidelines, including three methods + parks class (February 2016) -guidance on socio-economic measurement of PAs (by June 2016) *BD COP - 12/2016 (workshop) IUCN WCC - Hawaii (09/2016)	by June 2016.
	2.2 Mainstreaming Biodiversity	Develop operational guidance for project developers that incorporates the recent STAP assessment on the determinants of successful mainstreaming.	Operational guidance document and checklist for GEF biodiversity projects to apply mainstreaming principles in order to institutionalize implementation of effective mainstreaming practices in GEF-6.	July 2014 - June 2015	No work has begun on this task.
	2.3 Biodiversity - Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development	The GEF Council approved in June 2015 a \$90 million, World Bank-led Program to "promote wildlife conservation, wildlife crime prevention and sustainable development to reduce impacts to known threatened species from poaching and illegal trade." STAP has been requested to provide guidance as the program is developed -	Project design guidance notes for assisting GEF project developers. Specific outputs* may include: <ol style="list-style-type: none"> a) Guidance on benefit sharing and CBNRM b) Indicators for child projects as they are developed c) Knowledge management in program *Specific outputs - if needed - will be determined following the outcome of Program Committee meetings and	Jan 2015 - June 2016	The Panel Member attended the Commodities and Illegal Trade symposium in South Africa in Feb/March 2015. A meeting was held with the GEF Secretariat and the World Bank to discuss the Program and it was agreed that STAP would participate and actively contribute to inception workshops. Next Steps: Work with implementing agencies over the coming months to provide input into the Program theory of change.

		particularly with regards to community-based efforts to reduce poaching, as well as helping to fine-tune and help improve the child projects, as appropriate.	subsequent inception workshops.		
	2.4 Black Carbon	The GEF-6 Climate Change Mitigation Strategy includes "... reducing the concentration of SLCFs, such as hydrofluorocarbons (HFCs), black carbon, tropospheric ozone, and methane (CH ₄), but provides no information on how to incorporate, measure or monitor black carbon into residential, industrial and/or relevant transport projects. STAP will develop an advisory document intended to assist the GEF and its implementing agencies to incorporate measures that reduce black carbon in climate change mitigation projects, and to begin to track reductions of BC and co-emitted pollutants from specific projects.	Operational guidance document including information on the science, regional issues, mitigation options in specific sectors relevant to the GEF, and options for practical means for measuring black carbon in the local atmosphere. .	July 2014 - October 2015	The report was finalized in August 2015, and will be published by STAP in October 2015 (GEF/STAP/C.49/Inf.02). STAP is partnering with the Climate and Clean Air Coalition (CCAC) to launch the report either at the UNFCCC CoP 21, or at the CCAC high-level assembly in December 2015.
	2.5 Mercury: Fate and Movement in the Environment	This work will assist in efforts to (i) promote sharing of access to mercury data, and determine minimum common standards in the quality requirements and capabilities of data repositories; (ii) help to streamline protocols for collection of mercury data within projects across non-atmospheric media	Inaugural Meeting between real and potential partners in the area of Mercury data support to the Minamata Convention. Sample data protocols and a preliminary draft of elements for a targeted research modality, to help pilot* the protocols, and validate and record data collection specifications and submittal processes for (a) selected database(s), ultimately deriving a standardized mercury data	July 2014 - Dec. 2015	TORs have been developed and approved for a joint STAP/SETAC effort to help support creation of relevant areas of the Mercury data portal, including creation of streamlined data protocols for biotic data, secure linkages with pre-existing mercury and related data sets, and get the appropriate co-leads, TORs and registration for the Communities of practice groups identified as critical in the November 2014 partners meeting. Due to delays related to changes in the UN financial system, we expect a final delivery in mid-September 2016.

		(biological, sediment et. al.), and (iii) ensure that data generated meets minimal standards of quality for purposes of modeling of mercury fates and movement through the environment. Collaborating with open-source data platforms such as UNEP Live, including taking advantage of their communities of practice portals, should also assist the GEF in expanding its role in contributing to science and knowledge management	collection process for the GEF portfolio. (*Note that piloting of sampling protocols may also be able to take place within other GEF projects, as part of monitoring).		Next steps: Hold a kick-off working group meeting on October 22.
(On-going)	2.6 National Adaptation Plan process	Responding to the UNFCCC's COP guidance, the GEF Secretariat seeks STAP's advice in strengthening scientifically the National Adaptation Plan (NAP) process. The STAP will develop guidance for improving the NAP process and recommendations to make GEF support more effective.	Strengthened NAP process and outcomes drawing from multiple attributes including scientific, technical and social arrangements for mainstreaming long-term adaptation into institutional and policy frameworks. A report drawing from selected country experiences describing their efforts at national and sub-national level adaptation planning and strategy formulation.	Jan 2014 – June 2015	The draft NAP report was distributed for comments to STAP in July 2015. The report is being revised to address STAP's comments before distributing it broadly to the GEF partners.
(On-going)	2.7 Measuring, monitoring and evaluating adaptation	The GEF programming strategy for adaptation to climate change under the LDCF/SCCF includes a new strategic objective on mainstreaming and long-term adaptation. To measure and monitor these interventions, there is a need to develop indicators to measure and monitor outcomes at different scales. Indicators will also be	a) Improvements to tracking tools and specification of output & outcome indicators in LDCF/SCCF programming strategy; b) Technical report(s) on RBM indicators for LDCF/SCCF and sources of data and information for tracking progress of LDCF/SCCF projects.	July 2014 – Dec 2015	The First Order drafts for three technical reports supporting this effort have been submitted, covering various themes regarding the M&E of adaptation. The reports will be reviewed by STAP, and will be sent for external review. A report of the workshop held in Mumbai, India in January 2015 to discuss the zero order drafts was distributed in May 2015 to the GEF partners and STAP.

		required for “process” related outcomes, and it will be important to establish their relevance and validity for the overall objective of vulnerability reduction.	c) Technical report(s) supporting the development of M&E systems useful within countries for long-term adaptation planning and implementation		
	2.8 Source to Sea	Water resources flow in a continuum from land, to the coast and to the sea. For over twenty years GEF has tested integrated approaches to management of the different systems through IWRM in transboundary basins, IZCM along coastal zones, ecosystem management in LMEs and marine and fisheries management in the ABNJs. Key environmental concerns in the continuum include land-based pollution, changes in the sediment regime resulting from upstream land use changes and/or damming, encroachment and habitat destruction in coastal areas and the increasing, and sometimes unregulated, development activities in marine areas under climate change .	<p>Integrated analytical work (as defined in WP 1) with multiple partners such as the S2S Action Platform and IW Learn to increase the understanding of institutional, governance and management opportunities and baselines from source to sea under climate change.</p> <p>Specific focus will be on the coastal zone and how to achieve urban resilience to climate change & socio-economic transformation (supporting Cities IAP):</p> <p>a) Project design guidance for GEF-6 on institutional options, governance baselines and management systems along the continuum supporting an integrated and multifocal approach considering e.g. how to combat eutrophication and marine debris.</p> <p>b) Proposal for targeted research to support GEF 7 design to increase best practice in the S2S continuum.</p> <p>The analysis will build on lessons learned from GEF IW Learn and the knowledge management component (WP 5) and other global management approaches.</p>	Nov 2014 – June 2016	The first phase of the contract to develop GEF advice on how to address governance challenges was completed. Outputs: 1. Several online and face-to-face (at the dedicated side event during the 7th World Water Forum in Korea in Apr 2015) consultations on the draft; 2. Final draft of Scoping Paper “Governing key flows in a Source to Sea continuum: A conceptual view and theory of change” for broader review and consultation with the GEF partnership and external expert communities. This paper is currently under review. Next Steps: Finalize the Scoping Paper and prepare GEF guidance in this domain by June 2016.
	2.9 Areas	The health of oceans is	Prepare a scientific paper including	Jan 2015 –	

	Beyond National Jurisdiction (ABNJ)/ Oceans	being compromised. Challenges include over fishing, ocean acidification, marine debris, shipping, energy installations, sea bed activities and threatened food security. Integrated ocean management and the need to protect and manage areas beyond national jurisdiction (ABNJ) (equivalent to 40% of the planet surface) where a governance and management gap exists is gaining attention. The analysis will increase the understanding of tools available for international policy-makers and their respective suitability.	an assessment of emerging ABNJ challenges, a survey of existing and emerging law in this domain, and the identification of areas where collective action can make a major difference. This will guide further GEF investments and beyond to achieve GEBs and food security in particular. The paper will be externally peer reviewed including by the GEF partnership for publication in a science journal.	Dec 2016	The first draft of a scoping paper was recently completed and is currently under review. Next Steps: complete review process and finalize scoping paper, and prepare GEF Guidance in this domain by June 2016.
LONG TERM (beginning 2016)	2.10 C & W - Assessment of Mercury Reduction Technologies		Advisory document on appropriate technologies to eliminate and/or minimize the use of mercury in sectoral processes. This document shall include safe handling advice, where relevant.	July 2016 - June 2018	Not started as yet.

	2.11 C & W - Management, Disposal and Destruction Advice	<u>PCBs/HCH Assessment and Advice for Elimination</u> In response to a request from GEF Sec to contemplate cost-effective ways to meet the 2025 Stockholm phase out goal, this area of work will help find synergies for the elimination of not only Polychlorinated Biphenyls (PCBs), but also the large quantities of the newer POPs category of hexachlorocyclohexane (HCH) that needs to be tackled.	Advisory document on potential collection and synergistic destruction modalities of PCBs and HCH for use in GEF projects. It will endeavor to devolve a road map for integrated action on how to achieve the 2025 elimination goal, and tackle these two substances. Could potentially include: <ul style="list-style-type: none"> • geographically locating largest stocks; • destruction/ treatments (including performance and cost-benefit analysis), and • overall project approaches/elements. 	Jan 2016 – April 2018	Not started as yet.
LONG TERM (beginning 2016)	2.12 Advice on portfolio monitoring (linked to RBM/indicators work)	As the GEF Secretariat develops further its work plan on results based management and knowledge management, STAP will assist strengthening of the GEF's portfolio monitoring system. This output will include advice on developing focal area "learning objectives" including efforts towards greater harmonization, and direct support for carrying out studies of learning objectives as needed.	Strengthened results-based management of the GEF through portfolio monitoring tools. This may include improved methods to collect and report on focal area objectives within the GEF-6 Programming document. For example, STAP is contributing to the work of the IW Scientific and Technical Advisory Committee (IW Learn). In addition, STAP is also participating on the committee overseeing improvements to the methodology to calculate greenhouse gas emission reductions from CC-M projects. These activities are taking place in the near term, although most activities under this item would normally take place in the latter half of GEF-6	Nov 2014 – June 2018. Aligned to the focal area planning schedule as needs arise	STAP provided comprehensive support to the development of the GEF Secretariat led recommendations for GHG accounting across multiple categories of GEF projects. Final paper was presented to the 48 th GEF Council and available at: http://www.thegef.org/council-meeting-documents/guideline-greenhouse-gas-emission-accounting-and-reporting-gef-projects Work on indicators and learning objectives as a part of KM is continuing for each individual IAP.
	Task/Activity	Description/Notes	Expected Outputs	Timeline	Status
MEDIUM	3.1	A substantial and growing	A staged approach is proposed	Jan 2016 –	Preliminary discussions held with GEF IEO and

TERM (beginning 2015)	Environmental Security and Cooperation	body of evidence shows that the world's political, financial and ecological systems are coming under increasing pressure and are influenced and driven by insecurity. Changing dynamics of supply and demand of natural resources in the water-energy-food-ecosystem nexus put a pressure on the delivery of GEBs. The GEF partnership is informed by the opportunities that GEF interventions can provide to support stability and reduce potential or ongoing resource driven conflict, by facilitating cooperation on transboundary natural resources.	including : a) GEF partnership and external partners identified, July – Dec 2015 b) Scoping paper prepared outlining key issues and consultation undertaken with partners, Jan – Dec 2016 c) Targeted analytical report that 1) identifies the role of environmentally sustainable development, security, and stability to support the delivery of IAPs as well as GEB outcomes. 2) Identify where the GEF has promoted cooperation between groups and states, and/or made a positive contribution toward conflict avoidance, resulting in shared environmental benefits; and 3) assess best practices for working in conflict and post-conflict areas based on lessons learned over the past two decades, Jan – Dec 2016.	June 2017	NASA to jointly analyze the relationship between conflict 'hot spots' and GEF PAs as a first step for understanding whether or not GEF projects are impacted by conflict or have an influence on conflict situations and lessons that can be learned from project outcomes. STAP also discussed the issue with WWF about potential collaboration. Apart from consultations, no specific work on ToR started. The preferred starting date for this activity could be beginning of 2016 after completion of the SDG Summit in NY in Sept 2015.
LONG TERM (beginning 2016)	3.2 Green chemistry compendium	The GEF is interested in exploring new approaches in the area of green chemistry during the GEF-6 period, considering the relevance of the issue of green chemistry for chemicals & waste, namely through removal of hazardous substances from the production and consumption chain, whilst seeking out and/or noting multiple benefits from greater environmentally friendly technologies in	STAP could generate a compendium, looking at specific sectors and project types in the GEF-6 portfolio where Green Chemistry could be a tool for GEF projects in the developing world, aiming to improve the benefits of using BAT/BEP in different focal areas. Preliminary areas for consideration in GEF-6 piloting are a) replacement of emerging POPs, b) replacement of endocrine receptors from key production processes (eg fertilizers and plastics), and c) a sectoral approach for implementing Green chemistry (eg. The textiles dye industry).	January 2016 - April 2017	Beginning in May 2015, the STAP Panel member began looking in earnest at this issue, and made contact with experts in the field of plastics pollution and alternatives, in the wake of the GESAMP report on Microplastics being issued (see http://www.gesamp.org/data/gesamp/files/media/Publications/Reports_and_studies_90/gallery_2230/object_2500_large.pdf). It was clear that there was a role for green chemistry in devolving disruptive technological options to plastics, and the STAP has been reviewing potential cost-effective, appropriate alternatives that might be made available at scale. On the occasion of the BRS Triple COP in Geneva, in May 2015, the GEF CEO hosted a

		other focal areas such as climate change, biodiversity and international waters in the chemicals domain.			<p>side event, during which the STAP Chemicals Panel member was able to present on his thoughts on categorizing plastics as a hazardous substance, and his ideas for finding green chemical solutions to generate non-hazardous alternatives that might be utilized in GEF interventions. His suggestions were endorsed by the high level panel, which included the BRS Executive Secretary, and the Parties in the audience.</p> <p>Next steps: A competitive bidding exercise took place in July 2015, and a contract was awarded to Think Beyond Plastics in mid-September 2015. The proposed consultancy is to collate knowledge, experience and efforts of private sector, agencies and other experts in the area of alternative, preferably green chemistry based, options to plastics, and innovative waste management approaches that can help mitigate the entry of waste to the land, waterways and oceans. This will be compiled into an advisory document to the GEF, to help support the design of GEF interventions in GEF-6. In addition, recognizing the need for basic assessment of needs when entering a new environmental project area, there will be effort to generate a new hybrid format that will help capture data associated with the quantities, and social, economic and environmental impacts of plastic waste, as well as the potential entry points for new technologies and approaches, moving upwards the life cycle.</p> <p>The STAP hopes to complete this work by May 2016.</p>
	Task/Activity	Description/Notes	Expected Outputs	Timeline	Status
NEAR TERM (beginning 2014)	4.1 “Data Mining” of the GEF portfolio - Leveraging the knowledge base	GEF supports knowledge through a variety of tools and processes at corporate, portfolio and projects/programs levels.	Written compilation/database of a typology of knowledge products and flows from GEF projects as well as key portfolio KM lessons and best practices and approaches to inform	Nov 2014- June 2015	The initial phase of this work has been completed with the delivery of the final report to the 48 th GEF Council available at: http://www.thegef.org/council-meeting-documents/knowledge-management-gef-stap

	from the existing repository	This assessment aims at retrospective analysis of selected completed projects to understand the “ecosystem” of KM products and knowledge transfer processes supported by the GEF fund. Particular emphasis will be paid to “progress towards impact” assessment.	further development of the GEF KM system.		interim-report . The report and its conclusions were welcomed and regarded highly by the GEF Council. STAP will follow up on the recommendations of the report as a member of newly established KM Inter-agency Task Force.
NEAR TO MEDIUM TERM (beginning 2015)	4.2 Knowledge Management in the GEF: Key characteristics and elements	Advisory paper to articulate the rationale, constituent parts and utility of a shared GEF knowledge management system. This will be based primarily on a survey of KM approaches amongst GEF Agencies as well as selected outside organizations.	Consensus building within the GEF partnership on the constituent elements of a GEF knowledge management system achieved through mediated dialogue and workshop(s). This activity will also include work with individual Agencies (e.g. UNDP) regarding the the use of project design and project logframes as a mechanism to facilitate project learning and knowledge management	Jan 2015 –Jan 2016	This activity will be informed by the STAP KM paper to the 48 th GEF Council with STAP’s specific contributions agreed with the GEF partnership during meetings of the KM Inter-agency Task Force. As a first product, STAP is currently initiating (drafting ToR) for the advisory document focused on the development of KM-specific guidance for project and program design.
NEAR TO MEDIUM TERM (beginning 2014 until 2016)	4.3 Learning from country-portfolio evaluations (CPE): Assessing the impact of KM	STAP will work closely with the GEF IEO to assess the impact of KM products and processes at the national level using Country Portfolio Evaluations . As a result of this work, the role of science and knowledge in general will be strengthened in GEF impact evaluations and inform further development of the GEF M&E systems addressing knowledge needs	Assessment of KM products and processes in the two-three ongoing CPEs. Recommendations from CPE should inform measurable improvements to project design and project logframes, implemented KM technologies, and tracking of knowledge products and outcomes from projects.	Periodic as required. Aligned to the IEO evaluation schedule in GEF-6	CPEs for Morocco and Tajikistan are continuing and include KM specific learning questions developed by STAP together with the IEO. STAP will consult on continuing this work with the upcoming CPEs for China and Mexico. STAP is participating at the GEF IEO led interagency meetings focused on KM among Eos of GEF agencies. STAP is currently developing a proposal for GEF IEO to develop an externally funded community of practice to be focused on the evaluation of KM.
	Task/Activity	Description/Notes	Expected Outputs	Timeline	Status
On-Going	5.1 Report to GEF Council on Work Program	STAP screening of all full-size projects, particularly those with a major component of science and	Production of STAP Report to the GEF Council for each Council meeting	On-going. Aligned to the GEF Council and Secretariat schedule as	GEF Work Program for review is expected in early April.

	Implementation of activities (including screening projects)	STAP of technical innovation and significant scientific and/or technical methodological barriers to implementation.	Individual project screens to Agencies and the GEF Secretariat	GEF Work Programs are developed	
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