GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

GEF/STAP/C.55/Inf.01
December 13, 2018

55th GEF Council Meeting
December 18 – 20, 2018
Washington, D.C.

Agenda Item 10

REPORT OF THE CHAIRPERSON OF THE SCIENTIFIC AND TECHNICAL ADVISORY PANEL

Report of the Chair of the Scientific and Technical Advisory Panel (STAP) to the 55th GEF Council

1. Introduction

This report provides an update on STAP's work since the last Council meeting in June 2018.

Over the last 6 months STAP has:

(a) made changes to its membership as Panel member's terms were completed;
(b) continued work on climate risk screening;
(c) completed papers on novel entities, and on innovation, and is finalizing a paper on local commons for global benefits;
(d) looked at the agency 'lessons learned' from the IAPs relevant to the IPs, and thought about how STAP can contribute to developing the IPs;
(e) considered further STAP's work program, and the IPs;
(f) participated in a number of convention-related meetings, and technical workshops; and,
(g) reviewed 21 projects for the GEF work program.

2. Changed membership

STAP is pleased to welcome four new Panel members: Saleem Ali (climate change mitigation), Rosie Cooney (biodiversity conservation), Jamidu Katima (chemicals and waste management), and Graciela Metternicht (land degradation), and has said farewell to Ricardo Barra (chemicals and waste management), and Brian Child (biodiversity conservation). The four new members[1] will join two continuing members, Blake Ratner (international waters) and Ferenc Toth (climate adaptation). The Chair continues to be advised by Tom Lovejoy, and to fill the loss created by our beloved Michael Stocking, Mark Stafford Smith will join as an adviser to the Chair. Biographies of the new arrivals are included in an Annex.

3. Climate risk screening

In October, the Intergovernmental Panel on Climate Change published a Special Report on Global Warming of 1.5° Celsius, which assesses what a world would look like, and how to limit the global temperature increase to 1.5°C. The Summary for Policymakers and the Technical Summary[2] presents three key messages:

(i) global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate (high confidence);
(ii) climate-related risks for natural and human systems are higher for global warming of 1.5°C than at present, but lower than at 2°C (high confidence); and

[1] The Council approved these appointments by mail on a no-objection basis, following recommendations from the Executive Director of UN Environment, informed by a Search Committee chaired by UN Environment, with representatives from the World Bank, UN Development Programme, and the GEF Secretariat.
[2] Intergovernmental Panel on Climate Change, 2018. Global Warming of 1.5°C.

(iii) most adaptation needs will be lower for global warming of 1.5°C compared to 2°C (high confidence). There are a wide range of adaptation options that can reduce the risks of climate change (high confidence).

The Council has asked STAP to examine the effects of climate change on GEF projects. A preliminary study[3] applied the World Bank and USAID climate risk screening tools to 24 GEF-6 PIFs and CEO-endorsed projects. This analysis indicated that some projects demonstrated innovative strategies for addressing climate risk, but others did not provide sufficient future climate information to enable climate risk to be addressed properly. The Chair presented these findings[4] at the STAP Open meeting in Da Nang on 23 June 2018.

Since the Assembly, the 18 GEF agencies were asked for information about how they undertook climate risk screening. A preliminary analysis of agency approaches suggests that about two-thirds are practicing some form of climate risk screening, with a number of agencies in the process of updating or considering a revised approach. About half of these, i.e. six, had adopted an approach which: identified the climate risks to a project; considered how climate risks might affect achievement of the project's objectives; and recommended action to ameliorate climate risk. The remaining third either did not respond, or provided insufficient information to reach a preliminary view of whether they did have a robust screening mechanism. For some agencies, the time period over which climate risks were considered was not clear, i.e. over the period of project implementation, or over the longer-term; climate impacts were mentioned but there was no plan for amelioration; and for others, screening appeared limited to certain types of project.

More work is being done, in the light of which STAP will consider further advice on climate risk screening.

At the June 2018 Council STAP issued clarified and codified guidelines[5], to answer the question, "what does STAP look for when it screens projects?" With respect to climate risk the guidelines ask:

(i) How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately?
(ii) Has the sensitivity to climate change, and its impacts, been assessed?
(iii) Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with?
(iv) What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?

The GEF's Updated Policy on Environmental and Social Safeguards[6] sets out nine minimum standards for agency policies and procedures to identify and address environmental and social risks and impacts in projects and programs. Minimum Standard 1, "Environmental and Social Assessment, Management and Monitoring", addresses climate change and disaster risks. The policy states: "Short- and long-term risks posed by climate change and other natural hazards are considered systematically in the screening, assessment and planning processes described …. above, based on

[3] https://docs.google.com/document/d/1cd49MjdUJkUYV-92i-w35r_CpE4d7vg5PTN3FfSwa3E/edit?usp=sharing

[4] http://www.stapgef.org/sites/default/files/documents/Vietnam%20Final%20cc%20Presentation-rb.pdf
[5] http://stapgef.org/sites/default/files/publications/STAP%20screening%20guidelines_0.pdf
[6] Updated Policy on Environmental and Social Safeguards, GEF/C.55/07, November 2018.

established methodologies, and significant risks and potential impacts are addressed throughout the design and implementation of projects and programs."

The GEF's updated policy on safeguards and STAP's further work should improve the screening of GEF projects and programs for climate risk.

4. Novel entities, innovation, and local commons for global benefits

For the GEF Assembly in June, STAP provided five papers, on integration, knowledge management, plastics, food, and environmental security[7].

Two additional papers on Novel Entities, and Innovation and the GEF, have been completed, and a third paper, Local Commons for Global Benefits, is being finalized.

(a) Novel entities

Novel entities have been broadly defined as, "*things created and introduced into the environment by human beings that could have positive or negative disruptive effects on the earth system and may include new substances or new forms of existing substances such as synthetic chemicals, radioactive materials, nanomaterials, microplastics, as well as modified life forms from technologies like synthetic biology and gene modification."*

New entities and technologies can help in delivering global environmental benefits, but novel entities could also have the potential to become major global environmental problems. STAP therefore commissioned a study[8] which identified six novel entities, based on their novelty - newness of the entity or new knowledge about the entity; impact - scale, timing, scope, and complexity of its impact; and relevance - how the GEF's work might be affected, both positively and negatively.

Four of these are expected to be important during the next five years:

(i) ***Technology-critical elements*** (TCEs), including rare earth elements, the platinum group elements, and other scarce metals[9], are used in emerging and green technologies, but can have potentially harmful effects on plants, ecosystems, and human health when released into the environment – particularly important to the important to the GEF because the extraction of TCEs is taking place in developing countries, including in Africa and South America;

[7] Integration: to solve complex environmental problems
Managing knowledge for a sustainable future
Plastics and the circular economy
A future food system for healthy human beings and a healthy planet
Environmental security: dimensions and priorities

[8] http://stapgef.org/novel-entities-and-gef

[9] Rare-earth elements are a group of 17 elements, including the 15 lanthanides as well as scandium and yttrium. The platinum group elements are platinum, palladium, iridium, osmium, rhodium, and ruthenium. Other technology-critical elements include gallium, germanium, indium, tellurium, niobium, tantalum, and thallium.

(ii) ***Blockchain technology***[i10] is a decentralized, intermediary-free, digital log that promotes secure, transparent, and efficient transactions and has possible applications in monitoring chemicals and waste, implementing energy microgrids, reducing illegal fishing, and tracking genetic resources. However, its recent application as an underlying technology for Bitcoin virtual currency has raised concern about its excessive energy consumption, which could adversely impact climate change mitigation;

(iii) ***Next generation nanotechnology***[11] is more sophisticated than existing nanotechnology applications and could help increase agricultural productivity, reduce dependence on chemical pesticides, improve soil quality, enhance food preservation, improve freshwater supplies, improve the capture and conversion of solar and waste heat energy, and provide other environmental solutions. However, there could be potential adverse human health and environmental effects if nanomaterials leak into the environment; and

(iv) ***Gene editing***[12], especially Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), offers the possibility of better control of vector-borne diseases, improved animal husbandry, and helping plants adapt to climate change, but could pose a threat to biodiversity if not well regulated.

The other two are likley to be important beyond the next five years:

(v) ***Cellular agriculture*** aims to use novel technologies requiring minimal or no involvement of animals to produce livestock products like meat, leather, and fur that are traditionally produced through livestock rearing. This could help reduce the environmental effects of the current food production system, but there are concerns regarding ethics, socio-economic impacts, governance, and consumer acceptance; and

(vi) ***New engineered bio-based materials***, which use organic resources enhanced by synthetic biology to produce biofuel, chemicals, plastics, and construction and other materials, could help mitigate the unsustainable use of natural resources, environmental degradation, and global warming. Concerns have been raised, however, regarding the potential socioeconomic impacts of replacing natural indigenous commodities and production processes with bio-based production.

STAP recommends that the GEF should adopt the following strategic posture on these novel entities:

- Over the next five years:

[10] [10] A blockchain is a digital ledger that decentralizes data and eliminates intermediaries typically required to validate transactions. It uses a distributed database to store information securely, transparently, and efficiently, thereby improving processes that require secure sending, storing, accessing, or verification of information.

[11] Nanotechnology is the branch of technology that deals with very tiny dimensions and tolerances of less than 100 nanometres (much thinner than a human hair). It often involves the manipulation of individual atoms and molecules and can be applied across diverse scientific fields including chemistry, physics, material science, and engineering. Recent advances are leading to the development of a new generation of nanotechnology that goes beyond current passive nanostructures — which have stable behavior during their use — to active nanostructures and systems that can change composition and behavior during use and can be assembled into a system of structures and molecules to achieve specific objectives.

[12] Gene editing involves the addition, removal, or alteration of DNA nucleotides (the basic structural unit and building block of DNA) of a cell or an organism, resulting in a change in the characteristics of the cell or organism.

- Focus on managing the risks and harnessing the opportunities of technology-critical elements and blockchain technology: and

- Develop a better understanding of next-generation nanotechnology and gene editing/CRISPR.

- Beyond the next five years:

  - Monitor the development of cellular agriculture and engineered bio-based materials to determine what further action should be taken.

(b) Innovation and the GEF

The GEF was designed to be innovative in its design, governance, and operation from the initial pilot program in 1991. Determining how the GEF would be "innovative" in promoting technologies, policies, sector transformation, and business models, has been a central debate ever since. The GEF has evolved in many ways – expanding its scope, adding more agency partners, testing new modalities, and more. Nevertheless, the world in which it operates has changed even more dramatically.

The GEF invests about $1 billion a year. Public expenditure will never be enough to solve major environmental problems. This means doing much more with the funds available: finding ways to leverage more investment for each GEF dollar; identifying creative uses of emerging technologies; and engaging a wider range of partners to promote policy and institutional reform.

All the GEF agencies have extensive experience in supporting technological, institutional and business innovation. The incentives for greater innovation in the GEF are clear – to increase environmental effectiveness (to achieve deeper and wider changes), economic efficiency (to achieve more benefits for the same amount of investment) and the longevity of results (to secure self-sustaining mechanisms with durable outcomes).

STAP's paper reviews the GEF's experience with innovation in technology, finance, business models, policy, and institutional change, and makes a number of recommendations in each of these contexts. In technology, for example, this includes supporting demonstration projects, the adaptation and transfer of technologies to developing countries, and harnessing the opportunities offered by novel entitieis.

In addition, STAP makes the following cross-cutting recommendations:

(i) Define a risk appetite

The key issue for innovation in the GEF is risk. Innovation brings with it the possibility of less good outcomes or even failure. Falling back on trusted and true solutions which have been proven to work is a safe option but will not deliver transformational change. The enemy of innovation is a solution that works.

Incremental progress is inadequate for delivering transformational change. It is therefore important to question and assess at the strategic level what would be a desirable and acceptable level of risk in different areas of the investment portfolio. This could involve setting targets for success, while recognizing that some innovations will fail.

(ii) Responsibility for innovation

Innovation in the GEF comes from diverse sources, including the GEF Secretariat, agencies, STAP, IEO, private sector, academia, and NGOs. But there is considerable variation between focal areas, agencies, regions and recipient countries. While project proponents are explicitly asked about innovation in the PIF, but the extent to which this question is addressed, or how seriously it is taken varies greatly. Requiring a better explanation of what is new in a proposed project might encourage project proponents to consider innovation more seriously.

(iii) Cultivate innovation in design

The GEF would benefit from a more systematic approach to innovation. This could include a more rigorous expectation that the innovative elements in project design will be defined and evaluated; and setting out potential future outcome scenarios could help to identify "big bets" that are high risk but potentially very high reward. The GEF partnership could consider assigning responsibility to monitor and identify potential innovations for investment in order to help expand the "menu" that country and regional teams consider in project development.

(iv) Encourage adaptive implementation and exchange lessons

Significant, lasting impact requires time, persistence, and some adaptation and learning from failure. Opportunities for innovation cannot all be planned or foreseen at the design stage. Project proponents need to demonstrate how they are identifying obstacles and opportunities for innovation during the course of implementation. Innovative solutions to environmental problems are often location-specific, and can vary by region, and even within a country: mechanisms are therefore needed to ensure that experiences are shared, in order to help shorten the cycle from innovation to replication and adaptation in other contexts.

(c) Local commons for global benefits

The paper will focus on forests and dryland ecosystems. Globally these areas contain much of the world's carbon and biodiversity. Forests also provide critical ecosystem goods and services such as food, water, shelter, and nutrient cycling and are inextricably linked to food security, nutrition, and health. Recognizing the importance of forests and drylands to the health of the planet, the GEF has created the Sustainable Forest Management Impact Program for GEF-7, focusing on global drylands and the Amazon and Congo Basin forests.

These areas are home to many indigenous peoples and local communities. Roughly 2.5 billion people live in drylands and are faced with scarce natural resources, land degradation and frequent droughts, which pose a serious challenge to food production. Indigenous peoples and local communities have legal or official rights to at least 513 million hectares of forests, which collectively contain approximately 37 to 54 billion tonnes of carbon, roughly equivalent to total global carbon dioxide emissions in 2014.

To maximize global environmental benefits and achieve transformational change, the GEF should continue its support for indigenous peoples and local communities through direct project funding, the Impact Programs, and through the GEF Small Grants Program. The GEF could consider adopting project design principles which would help to restore the local commons through clarity of concept,

i.e. a theory of change, and well-defined project design, which embodies the following considerations for community-based natural resource management projects.

These include: encouraging secure tenure and community ownership, e.g. rights of access, use, management, benefit and exclusion; creating greater value, both financial and non-financial, in wild resources and ecosystem services, e.g. developing markets, strengthening value chains, and creating an enabling environment; supporting inclusive community governance and building institutions from the bottom up; and promoting adaptive management and learning, e.g. by building local capacity in the community, including for governance, enterprises, and natural resources.

5. Impact Programs

(a) STAP and integration

STAP's paper on Integration[13] for the Assembly made seven recommendations for the design of future GEF projects and programs:

(i) Apply systems thinking, i.e. address inter-connected environmental, social, economic and governance challenges across sectors;
(ii) Develop a clear rationale and theory of change and develop a plan B should desired outcomes not materialize;
(iii) Assess the potential risks and vulnerabilities to projects and measure the system's resilience to expected and unexpected shocks;
(iv) Devise a logical sequence of interventions, which is responsive to changes circumstances and new learning;
(v) Develop explicit plans and funding for good quality knowledge management;
(vi) Apply exemplary stakeholder engagement, including with local communities, not just government officials; and
(vii) Allow flexibility in project preparation to accommodate the additional transaction costs and time required to tackle complex issues.

(b) Agency lessons from the IAPs

Presentations made by IAP lead agencies in October, and conversations with them, indicate a number of lessons learned from their experience in developing the IAPs, including:

(i) Developing a robust program document at the outset will assist countries to design projects in line with good practice on integration
(ii) Coordination is essential, takes time, and needs a sufficient budget, with a clear allocation of responsibilities
(iii) High upfront transactions costs in inter-agency collaboration have medium term pay-offs in terms of a wider range of options for doing integrated programming
(iv) Genuine partnership takes longer to develop, requires investment in trust building but makes it easier to promote integrated programming and achieve scaling

[13] Bierbaum, R. et al. 2018. Integration: to solve complex environmental problems. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC.

(v) Close and continuing engagement with stakeholders, both formal and informal, and good communications, are important for building trust, buy-in, and facilitating dialogue.

Some of these agency lessons learned indicate a degree of resonance between lead agency experience in developing the IAPs, and STAP's earlier recommendations, in particular on systems thinking and theory of change, stakeholder engagement, communications, and the need to accommodate additional transactions costs for integration, and allowing sufficient time.

(c) STAP and the IPs

STAP will have a formal role in reviewing the IP program documents which will be submitted for consideration at the June Council next year. And STAP stands ready to assist in developing the IPs where it can add value, for example, on systems thinking, theory of change, and resilience: a Panel member will be allocated to each IP. STAP has begun exploring with the lead agencies and GEF Secretariat how best to do this.

6. STAP's work program

In addition to further work on climate risk screening, there are a number of items in STAP's work program which can contribute to the IPs. These include:

(a) Guidelines for land degradation neutrality for land use planning, strategic land restoration and rehabilitation

Land degradation neutrality (LDN) is an approach that off-sets the expected loss of productive land with the recovery of degraded areas[14], by focusing on conserving, sustainably managing, and restoring land. Under the auspices of the United Nations Convention to Combat Desertification, over 100 countries, are setting targets to achieve land degradation neutrality; and the GEF-7 is assisting countries with its implementation. To strengthen countries' technical capacities for planning and implementation, STAP will develop guidelines which will focus on how to enable effective implementation of LDN, e.g. identifying drivers of land degradation, and will include practical steps to make action transformational.

(b) The use of Earth Observation (EO) data for improved GEF program and project planning, implementation and monitoring

Over the past 5 years, the availability and accessibility of geospatial data has risen dramatically due to greater computational capabilities and the proliferation of open source and user-friendly, web-based platforms. Information derived from space-based earth observation systems is particularly useful for assessing and monitoring environmental change and there are numerous applications for remotely sensed data in GEF focal areas, the Integrated Approach Pilots, and the Impact Programs[15].

[14] https://www.unccd.int/actions/achieving-land-degradation-neutrality

[15] For example, to protect, restore and promote 1) sustainable use of terrestrial and marine ecosystems, 2) sustainably managed forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; 3) assessment of forest and above ground carbon stocks; 4) land productivity and vegetation trend analysis; 5) land use/land cover change; soil organic carbon estimations; 6) land degradation trends; agricultural monitoring; 7) monitoring of water-related ecosystems; 8) mapping urban growth; 8) monitoring air quality; monitoring marine ecosystem health and inshore water quality.

Several GEF agencies such as the World Bank, FAO, UNDP, UN Environment, the World Wildlife Fund and Conservation International are incorporating geospatial data and analysis into their programming, including through the development of platforms and tools such as the UN Biodiversity Lab, Collect Earth, Earth Trends, Spatial Agent, etc. The GEF Independent Evaluation Office is using geospatial data to conduct impact evaluations for specific projects and portfolios. For example, an evaluation conducted by the IEO in 2015 of GEF-funded protected areas resulted in recommendations to use geospatial technology to more effectively target GEF interventions; and a GEF report (2016) on biodiversity mainstreaming concluded that, "modest and targeted investments in spatial and land-use planning can be quite impactful and set the stage for future mainstreaming work".

STAP is considering an advisory document that would help guide practitioners to incorporate Earth Observation and other spatial data into the development, implementation and monitoring of applicable programs and projects. This could include a primer on remote sensing and Geographic Information Systems, as well as case studies and information about how to access data and information from relevant EO platforms.

(c) science for integrating vulnerability reduction and climate adaptation into GEF programming, and develop adaptation metrics across the portfolio

This would develop: adaptation metrics (especially early and intermediate) across the whole GEF portfolio, i.e. not just for the LDCF and SCCF; and indicators and composite indices to measure progress, efficiency, and effectiveness of climate adaptation. It would also provide advice on measuring and addressing uncertainty, and suggest methods for designing responsive and sustainable projects where climate projections are limited, or uncertain.

(d) the science of multi-stakeholder dialogue and transformation in social-ecological systems.

Strategic priorities for GEF-7 include actions to: enhance integration across sectors; catalyze innovation and transformational change to alter systems that degrade the global environment; and, leverage multi-stakeholder coalitions to influence change across scales.

STAP is considering a paper addressing the challenge of building effective multi-stakeholder coalitions. In particular, it will focus on the role of multi-stakeholder dialogue in catalyzing action that contributes to system transformation advancing the goals of the GEF. The paper will address three questions: what is the evidence regarding the role of multi-stakeholder dialogue in influencing transformation in social-ecological systems?; what lessons can be derived from past experiences regarding strategies to build and sustain such multi-stakeholder dialogue processes?; and what implications does this have for GEF programming?

The lessons and implications will focus on practical guidance for the design and implementation of GEF-financed operations, including: multi-stakeholder dialogue processes to set intermediate project-level objectives and longer-term goals for system transformation, and identify alternative routes to achieving these; learning questions, or hypotheses regarding system characterization and impact pathways, to be validated in the project/program theory of change, and revisited during implementation; and indicators for monitoring and assessing progress along impact pathways with regards to effective stakeholder engagement, including knowledge management and learning processes

7. Convention-related meetings, and technical workshops

Global Commission on Adaptation[16]

Dr. Rosina Bierbaum, the Chair of STAP, has been appointed as a science advisor to the Commission, which is led by former UN Secretary-General Ban Ki-Moon, Bill Gates, and Kristalina Georgieva (World Bank CEO). The Commission is due to report in November 2019.

UN FAO Workshop for GEF Latin America Operational Focal Points, 10-12 October, Quito, Ecuador

Dr. Ricardo Barra participated in the United Nations Organization for Food and Agriculture (FAO) Workshop for GEF Latin America Operational Focal Points. He made a presentation on the role of science in implementing GEF projects, and how STAP screens GEF projects.

9th International Waters Conference, 4-8 November, Marrakesh, Morocco

Dr. Blake Ratner attended the 9th International Waters Conference (https://iwlearn.net/events/iwc9-2018): a biannual opportunity for the exchange of experience and lessons among project partners within the GEF international waters (IW) portfolio. Dr. Ratner joined a plenary panel on the core tools of GEF IW programming, the Transboundary Diagnostic Analysis and Strategic Action Program, in which he urged partners to employ these tools with an eye towards the transformational goals of the GEF. These include catalyzing governance reforms that enable cooperation to reduce transboundary resource conflict, piloting innovations with clear routes to scaling within the target waterbodies and beyond, and channeling future investment well beyond the scope of the GEF's own contributions. Later in the agenda, he also made a plenary presentation on the theme of innovation, surveying the five dimensions covered in the forthcoming STAP paper on the topic (innovations in technology, policy, financing, business models, and institutions), and urging project proponents to clearly articulate the role of innovation within the theory of change for each initiative. This helped set the stage for a series of 16 clinics on innovative practices and tools in both freshwater and marine transboundary systems.

Minamata Mercury 2nd Conference of the Parties, 19-23 November, Geneva, Switzerland

Dr. Ricardo Barra attended the Minamata Mercury Conference of the Parties (COP2), and other meetings, including a multi-stakeholder workshop, by the International Panel on Chemicals Pollution, to discuss the future work of the science-policy interface in international chemicals management, which will inform the Intersessional Process on Post 2020 chemical management, as well as the University of Geneva Mercury Science Policy Workshop which is focused on advances in mercury science, surveillance, policy and management.

United Nations Framework Convention on Climate Change, 24th Conference of the Parties, 2-14 December, Katowice, Poland

Dr. Ferenc Toth attended the United Nations Framework Convention on Climate Change COP24 and other meetings in Katowice, Poland. He participated in the 49th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) which discussed topics such as loss and damage

[16] https://gca.org/global-commission-on-adaptation

associated with climate change impacts and methodological issues under the Convention. The SBSTA session also featured a report of the Adaptation Committee and report on the technical review of greenhouse gas inventories. Dr. Toth also participated in several side events including circularity for a sustainable future; from science to policy: achieving the SDGs in a 1.5 degrees warmer world; up-scaling adaptation actions in LDCs through innovative technology; and the power of blockchain for climate action under the Paris Agreement.

Global Chemicals Outlook (GCOII), 10-11 December, Geneva, Switzerland

Dr. Ricardo Barra is a member of the Steering Committee for the Global Chemicals Outlook, and has contributed to the scientific and technical review of the draft report, and to the Summary for Policy Makers.

8. GEF projects reviewed (December work program)

STAP screened 21 projects for the December work program, 6 LDCF, and 15 GEF Trust Fund, using the revised screening guidelines[17].

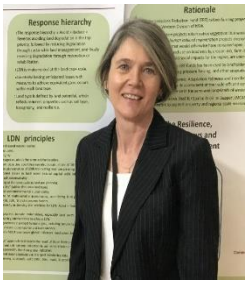
[17] http://stapgef.org/sites/default/files/publications/STAP%20screening%20guidelines_0.pdf

Annex – Biographies of STAP new arrivals

Saleem H. Ali is an environmental planner whose research and practice focuses on ways of resolving ecological conflicts through technical and social mechanisms, as well as exploring novel ways of peace-building between corporations, governments and communities. Professor Ali holds the Blue and Gold Distinguished Professorship in Energy and the Environment at the University of Delaware, and is a Senior Fellow at Columbia University's Center on Sustainable Investment and Georgetown University's Center for Australia, New Zealand and Pacific Studies. Professor Ali is a member of the United Nations International Resource Panel, The IUCN World Commission on Protected Areas, and serves on the board of the Diamonds and Development Initiative. He is also a series co-editor for the University of Chicago Press on Environmental Science, Law and Policy. Professor Ali received his doctorate in Environmental Planning from Massachusetts Institute of Technology.

Rosie Cooney leads the work (until December 2018) of the International Union for Conservation of Nature's (IUCN) Sustainable Use and Livelihoods Specialist Group, a joint initiative of the Species Survival Commission and the Commission on Environmental, Economic and Social Policy. She has worked for leading international conservation organizations in collaboration with colleagues across the globe; acted as an independent consultant to governments, non-governmental organizations and the private sector; and carried out research and teaching at two leading Australian universities. Dr. Cooney is the lead author for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Asia-Pacific Regional Assessment. Dr. Cooney has eighteen years of experience working across the interface of research, policy and practice in governance, conservation and sustainable use of biodiversity, using a transdisciplinary perspective integrating insights from diverse disciplines and stakeholders.

Jamidu Katima is a Professor of Chemical Engineering at the University of Dar es Salaam in Tanzania. Dr. Katima has been involved in the negotiations of chemicals management for the Stockholm Convention, and Minamata Convention. He served as a Member of the GEF Technical Advisory Group on Sound Chemicals Management. During his time as a Member of the Advisory Group, Dr. Katima co-authored a proposal on the scientific and technical reasoning for establishing a chemicals management focal area in the GEF. Dr. Katima has also led research groups, including on waste stabilization ponds and constructed wetlands, biofuels, and non-burn medical waste treatment technology. Dr. Katima's research has been applied in several GEF chemicals and waste management projects that he led. Dr. Katima is also a member of the International Panel on Climate Change (IPCC). He is the Lead Author of Chapter 4 of the Third Assessment Report of the IPCC, and as a member of the IPCC Task Force Bureau on Inventory representing Anglophone Africa. Dr. Katima served as the Vice-President of the Intergovernmental Forum on Chemical Safety (IFCS); Co-chaired the International POPs Elimination Network (IPEN); served as the Africa Regional Focal Point for the Strategic Approach for International Chemicals Management (SAICM); and, Co-chaired SAICM's Working Group responsible for the preparation of the Global Plan of Action.



Graciela Metternicht is a Professor of Environmental Geography at the University of New South Wales, School of Biological, Earth and Environmental Sciences, in Australia. Professor Metternicht has 24 years of research experience in environmental management and policy to address land degradation. She is an expert in land degradation, ecological sustainable development, land use planning and natural resource management. Professor Metternich has worked at a range of prominent institutions around the world. Previously, she was Senior Officer of Early Warning and Assessment at UN Environment working on integrated environmental assessments and early warning, providing independent scientific and technical advice to Ministries of Environment of Latin America and the Caribbean. Professor Metternicht co-leads the IUCN Dryland Ecosystem Specialist Group. She also was a member the Assessment Methodology Group of the 6th Global Environment Outlook (GEO-6), and coordinated the Latin America and Caribbean Chapter of GEO-5. Since 2014, Professor Metternicht has served as a Science Policy Interface Member of the United Nations Convention to Combat Desertification (UNCCD). Recently, Professor Metternich joined the Scientific Steering Committee of the Future Earth Global Land Programme, and the Biodiversity Conservation Advisory Panel of the State of New South Wales.

Mark Stafford Smith recently retired from CSIRO, Australia's national research organization, where he had been overseeing a highly interdisciplinary program of research on many aspects of adapting to climate change, as well as regularly interacting with national and international policy issues around sustainable development. He continues as a CSIRO Honorary Fellow, and in several international roles. Mark has over 30 years' experience in drylands systems ecology, management and policy, including senior roles such as CEO of the Desert Knowledge Cooperative Research Centre in Alice Springs. His significant international roles include being past vice-chair of the International Geosphere-Biosphere Programme's Scientific Committee; co-chair of the Planet Under Pressure: New Knowledge Towards Solutions conference in 2012 on global environmental change in the lead up to Rio+20; and through 2013-17 Chair of the inaugural Science Committee for Future Earth, which helps to coordinate research towards global sustainability worldwide. He continues to publish, adding to over 200 peer-reviewed contributions to science, as well as many presentations and publications for less-specialized audiences.