

Report of the Chair of the Scientific and Technical Advisory Panel to the 64th GEF Council

Introduction

This report provides an update on the work of the Scientific and Technical Advisory Panel (STAP) since the 63rd Global Environment Facility (GEF) Council meeting. Over the past six months, STAP has provided advice and worked on several topics, as detailed in this report.

The first section highlights activities undertaken by STAP with the GEF Secretariat: support for the GEF-8 Integrated Programs (IPs) design and roll-out, a workshop on transformational change metrics, training on the new GEF-8 Project Identification Form (PIF), and a workshop on knowledge management and learning. And STAP made a presentation about its work at a GEF introduction seminar in February.

The second section presents the main findings from STAP's recent publications: Leveraging Innovation for Transformational Change; Policy Coherence in the GEF; Incorporating Co-benefits in the Design of GEF Investments; Simple Future Narratives; and Knowledge Management and Learning (KM&L).

The third section recaps the key messages from STAP's report to the Seventh GEF Assembly in Vancouver, Canada. It provides information on the STAP Science Day event at the Assembly, focused on youth leaders, and indigenous learning and knowledge.

The final section of the report presents a brief update on the activities of STAP panel members in the past six months.

STAP's activities with the GEF Secretariat

1. Support for GEF-8 Integrated Programs roll-out

Between January and March 2023, STAP, Panel members and secretariat staff participated in the GEF Secretariat's reviews of expressions of interest from countries to participate in the following GEF-8 IPs: Food Systems; Ecosystem Restoration; Sustainable Cities; Amazon, Congo, and Critical Forest Biomes (Indo-Malay, Meso-America, and West Africa); Circular Solutions to Plastic Pollution; Blue and Green Islands; Net-Zero Nature-Positive Accelerator; Wildlife Conservation for Development; Greening Transportation Infrastructure Development; and Elimination of Hazardous Chemicals from Supply Chains. STAP also provided scientific and technical advice on selecting IP child projects.

STAP (panel members and secretariat) joined the following IP design workshops: Food Systems; Ecosystem Restoration; Blue and Green Islands; Meso-America, Indo-Malay, West Africa, and Congo Critical Forest Biomes; Circular Solutions to Plastic Pollution; Net-Zero Nature-Positive Accelerator; and Elimination of Hazardous Chemicals from Supply Chains. The workshops provided an opportunity for STAP to provide early scientific and technical input on developing the IPs.

2. Webinar on transformational change metrics

On 30 March 2023, STAP and the GEF Secretariat organized a webinar on metrics for transformational change. Approaches to monitoring transformation in the GEF's IPs and to facilitate rapid learning and adaptive management were shared. The webinar primarily targeted GEF agency teams responsible for designing IPs. STAP presented findings from its paper on [achieving transformation through GEF investments](#), submitted to the GEF Council in June 2022. A key feature of the webinar was STAP's advice on metrics for monitoring and learning about transformation, based on five types of process indicators: four are the GEF-8's transformation levers,¹ and a fifth builds on the [German Agency for International Cooperation's](#) (GIZ) work on transformation. Several other presentations were made, including on GIZ's experiences in designing and monitoring projects for transformation, by the World Bank on the Amazon Sustainable

¹ The GEF-8's transformation levers are governance and policies, finance, multi-stakeholder dialogues, and innovation and learning.

Landscapes Program, and by the United Nations Environment Programme on planetGOLD program. The presentations and a recording of the webinar are available on [STAP's website](#).

3. [Training on the new Project Identification Form](#)

On 4 April 2023, the GEF Secretariat and STAP organized a second training on the new PIF for GEF Secretariat staff, and the GEF agencies, especially technical staff involved in project design and implementation. Mark Stafford Smith (STAP) presented STAP's guidance on eight enabling elements for good project design and outlined key aspects to consider when developing a project's rationale and description. STAP, with the GEF Secretariat, developed background materials to assist project developers in designing good quality PIFs, including (i) a document describing six key aspects for building a robust project rationale and description, and (ii) a document on frequently asked questions about how to develop a strong PIF. STAP also prepared illustrative PIFs to demonstrate what a well-prepared PIF should look like. These materials and the recording of the training and presentations are available on the [GEF website](#).

4. [Workshop on knowledge management and learning](#)

On 4 May 2023, STAP and the GEF Secretariat held a workshop: (i) to learn from GEF agencies' experience with KM&L platforms developed for the Integrated Approach Pilots and the Impact Programs to see how this experience could benefit the development of platforms for the IPs; (ii) to encourage cooperation and collaboration in the development of the IPs' KM&L platforms; and (iii) to consider the implications that the development of the IPs' KM&L platforms could have for the new GEF knowledge management and learning strategy.

The workshop included [presentations](#) from the World Overview of Conservation Approaches and Technologies network; the Food Systems, Land Use and Restoration Impact Program; Amazon Sustainable Landscapes (Integrated Approach Pilot and Impact Program); and the Global Platform for Sustainable Cities (Integrated Approach Pilot and Impact Program). Responses were invited from agencies with experience of KM&L platforms in all three generations of GEF integrated programming, followed by facilitated discussion – more on this in section 9.

STAP reports

5. [Leveraging innovation for transformational change](#)

STAP prepared a briefing note on leveraging innovation for transformational change; this builds on STAP's earlier advice ([Innovation and the GEF](#)) on the topic, which concluded that the GEF would benefit from a more systematic approach to innovation.

The brief outlines an approach to more purposeful decisions about the types of innovation needed to ensure that the GEF can achieve its strategic objectives, beginning with five practices that, when applied sequentially, can help strengthen innovation across GEF programmes and projects:

- (i) **Prioritize problems** that most need solutions to achieve global environmental benefits. Improving the level of precision in defining problems in theories of change at programme and project levels can go a long way to ensuring a better fit between problems and solutions.
- (ii) **Align ambition** to support interventions aiming to solve these important problems. Finding novel solutions to complex and persistent problems typically involves more innovative and higher-risk projects, where successful outcomes are less certain.
- (iii) **Embrace diversity**, leveraging multiple innovation domains. Solutions to difficult problems typically involve a combination of innovations from multiple fields of expertise, including finance, business models, technologies, institutional and behavioural change, and policy.

- (iv) **Design for scale**, assessing how solutions will be implemented to achieve impact. A systematic approach to innovation involves an iterative process of generating and testing solutions with the intention of selecting those that can be implemented at scale.
- (v) **Ensure learning** from innovation to minimize risk and accelerate change. Building in regular feedback from stakeholders who are most likely to champion innovative solutions—as well as those most likely to oppose them—is an important part of the cycle of testing and learning.

STAP further recommends four priorities to institutionalize incentives for innovation in GEF programming over the longer term:

- **Adopt a risk appetite framework, along with metrics for transformational change.** The IEO has recommended that the GEF “clearly articulate the level of acceptable risk across the various instruments and approaches...to encourage innovation through a managed approach.”ⁱ In response, the GEF Secretariat has committed to “establishing a clear baseline for risk acceptance in GEF-8 programming.”ⁱⁱ Deciding on the GEF’s appetite for programmatic risk in different areas will be an important step forward to support greater innovation and, particularly, to encourage higher risk–higher reward investments.
- **Use targeted funding windows strategically to strengthen innovation.** There is scope for a more coherent and targeted use of medium-size projects (MSPs) to strengthen innovation by testing riskier but potentially higher impact solutions as well as novel approaches to scaling; and for using the new dedicated window for innovation to fund higher risk exploratory innovations.
- **Embed innovation priorities in the program design cycle.** A strategic approach to innovation in future GEF replenishment cycles could include portfolios of projects testing innovative solutions across GEF structures and delivery modalities and facilitate rapid exchange and cross-learning among them. Program-level planning in integrated programming and focal areas could also be used strategically to identify and select the innovations required at different phases of piloting, testing, and scaling to support programme objectives.
- **Build knowledge management systems that drive learning for innovation and transformation.** STAP has [advised](#) the GEF to identify the distinct causal pathways by which its new KM&L strategy can influence systems transformation. These pathways include strengthening the organizational culture around knowledge and learning, building incentives to access and share knowledge, supporting scaling processes, enhancing country-level policy coherence, and leveraging greater co-investment.
- The fundamental challenge in the longer cycle of innovation and scaling is linking individual projects into an ecosystem of learning from relevant experiences within the broader GEF portfolio – and far beyond. This requires sharing knowledge effectively between programmes and projects and tapping into scientific and practice networks to ensure that GEF investments are positioned at the cutting edge of innovation.

All of these ideas are explained more fully in the June 2023 STAP Advisory Document, [Leveraging innovation for transformational change](#).

6. [Policy coherence in the GEF brief, and advisory document](#)

STAP’s earlier advice on policy coherence, [Framing Policy Coherence for the GEF](#), encouraged the GEF to define “good” policy coherence, in the context of GEBs, to facilitate a common understanding of the term across the GEF Partnership and to articulate a GEF-wide policy coherence strategy. In this vein, STAP suggested that the GEF’s policy coherence objectives should be to ensure that global environmental

benefits (GEBs) are not undermined or negated by misaligned policies, or by misaligned investment decisions, both public and private.

STAP's new advisory document provides eight examples of how the GEF could pursue policy coherence by coordinating across its operational levels – project, program, and portfolio-wide – in pursuit of these objectives.

(STAP attached an accompanying four-page brief which summarizes the new advisory document.)

Considerable work has been done in applying policy coherence frameworks to analyze current levels of policy coherence for specific sectors, particularly at the national level. Lessons from this work can be operationalized at program and even project levels, to improve understanding of the policy landscape and to consider how to respond to incoherencies.

In addition to analyzing the state of policy coherence and avoiding misaligned policies, as well as expenditure and investment decisions which undermine GEBs, there may be opportunities for the GEF projects to engage in the policy cycle to improve policy coherence. For example, on a thematic area such as mercury or land degradation at a national or transnational level (e.g., biome or value chain), or it could participate in a more generic national or global analysis of policies with environmental implications.

STAP makes the following recommendations:

- (i) The GEF should articulate an explicit strategy for coordinating approaches to policy coherence across its operations, drawing on the approach in GEF/C.64/09 “Enhancing Policy Coherence through GEF Operations”, and STAP’s Advisory Document on Policy Coherence.
- (ii) The GEF should support countries in developing policy coherence, within and between sectors, through the Country Engagement Strategy (CES) and National Dialogues, including by building knowledge, capacity, and learning.
- (iii) The GEF could encourage groups of countries facing similar challenges about the effects of policy incoherence on GEBs to work together, for example, in an integrated program, or focal area.
- (iv) The GEF should adopt criteria to review proposals in the new competitive window for policy coherence and ensure that projects have monitoring systems that will enable resulting lessons and knowledge to be shared.
- (v) The competitive window on policy coherence could be used to test approaches to analyzing sectoral or national policy coherence, exploring ways to engage with the policy cycle to improve coherence, and developing useful and efficient monitoring systems.

All of these ideas are explained more fully in the June 2023 STAP Advisory Document, [Policy Coherence in the GEF](#).

7. Incorporating co-benefits in the design of GEF investments

The previous STAP brief [Refining the Tracking of Co-Benefits in Future GEF Investments](#) emphasized the importance of distinguishing GEF global environmental benefits from local environmental and socio-economic co-benefits, classifying these co-benefits into prerequisite (those needed to achieve GEBs) and incidental (not necessarily required to achieve GEBs).

The GEF-8 Results Measurement Framework (RMF) monitors project outcomes using a set of core indicators that measure GEB delivery in biodiversity, climate change mitigation, chemicals and waste, international

waters, and land degradation. The RMF indicator for measuring socio-economic co-benefits is the number of people benefitting, disaggregated by gender. However, this indicator does not capture the different types of the specific socio-economic co-benefits that can stem from GEF projects, nor does it cover potential local environmental co-benefits (e.g., improved air quality, reduced freshwater pollution, and improved ecological resilience).

Evaluationsⁱⁱⁱ by the GEF’s Independent Evaluation Office (IEO) affirm that GEF projects have delivered socio-economic benefits such as improved livelihoods, jobs, human health, and food security. The GEF-8 Programming Directions, particularly those related to Integrated Programs, note the potential for GEF projects to generate local environmental and socio-economic co-benefits, as well.

STAP’s new brief on co-benefits, [Incorporating co-benefits in the design of GEF projects](#), is intended to support the GEF in developing an options paper on how to “improve the capturing of human and socio-economic well-being co-benefits, as well as climate change adaptation co-benefits, in the results monitoring and improve their consideration in the design of GEF-funded projects and programs”.

The brief identifies potential co-benefits resulting from GEF projects (Figure 1), based on a review of GEF-7 projects and several science-policy assessments, including by the Intergovernmental Panel on Climate Change and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. The brief shows how co-benefits can be incorporated into the design of GEF projects and suggests how co-benefits could be tracked and measured.

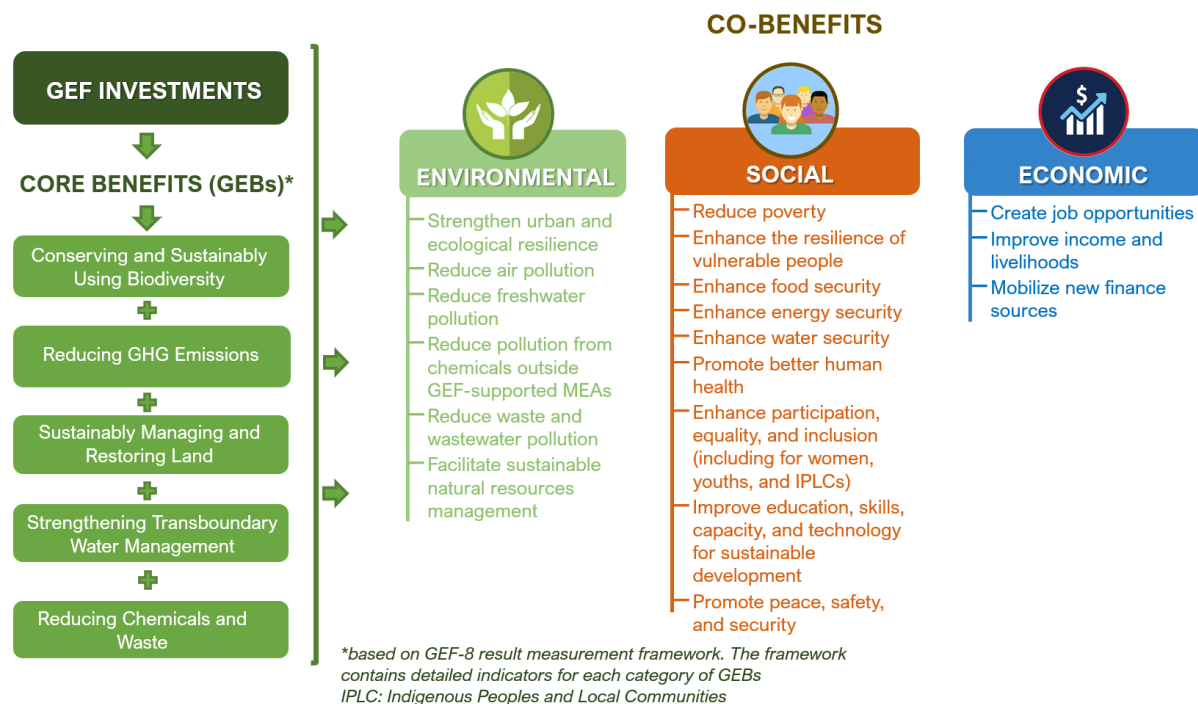


Figure 1: Summary of some potential local environmental and socio-economic co-benefits from GEF investments. (Source: STAP)

The brief suggests the following next steps in developing an options paper:

- Develop a checklist of local environmental and socio-economic co-benefits for project developers to consider in designing projects (Figure 2 offers a starting point).
- Strengthen the GEF’s RMF to include more specific indicators of local environmental and socio-economic co-benefits.

- Build capacity within the GEF partnership for identifying and incorporating co-benefits in projects and for tracking and measuring co-benefits.
- Develop institutional arrangements to monitor, evaluate, and report on co-benefits

All of these ideas are explained more fully in the June 2023 STAP Advisory Document, [Incorporating co-benefits in the design of GEF investments](#).

8. [Simple future narratives brief, and primer](#)

The GEF-8 Strategic Positioning Framework points to the need to design projects to be resilient to multiple plausible futures by considering how drivers of environmental change (such as population growth, conflict, climate change, migration, and technologies) may play out in the future. Not doing so can make project outcomes less resilient, with short-lived GEBs, or even damaging to the environment and intended beneficiaries.

STAP has prepared a primer on simple future narratives to support the GEF to better design projects that address this concern. The primer notes that drivers of change, especially those that are uncertain, should be considered early in project development (at the PIF stage), using a few simple narratives about how the future could unfold. Doing this often widens the range of intervention options to include those that are robust to future uncertainty, ensuring that projects work reasonably well in all plausible futures, rather than very well in one future but poorly in others.

(In addition to the detailed primer, there’s an accompanying five-page brief which summarizes the advisory document.)

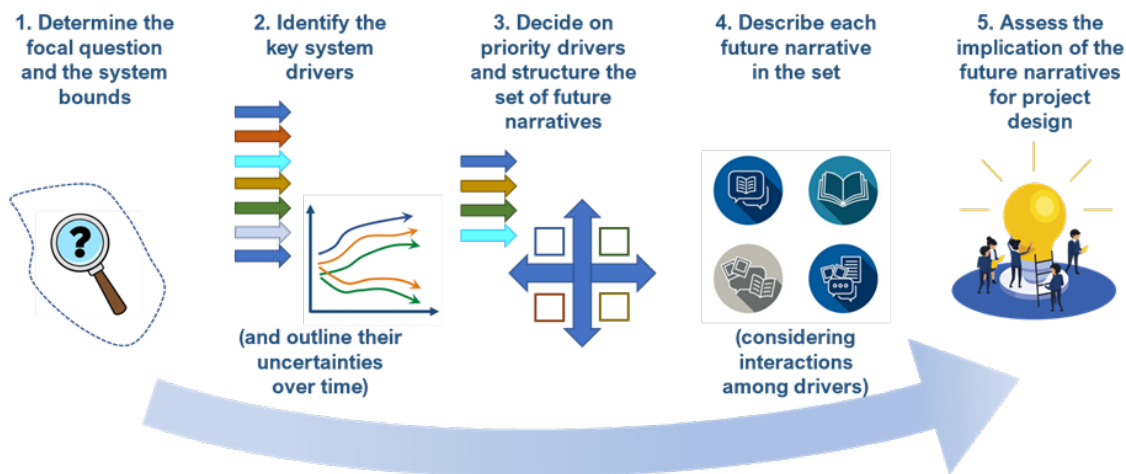


Figure 2: Key steps in developing and applying simple future narratives. (Source: STAP)

Considering plausible futures during project design is becoming the leading practice in sustainability and development projects, including among GEF agencies and external organizations. And the STAP primer shows that complex or highly quantified approaches are not needed to improve design. GEF projects can focus on the critical drivers in the project context and ensure that the design accounts for uncertainty about how trends in these drivers may unfold and that interventions are robust to the plausible futures derived from the simple narratives.

All of these ideas are explained more fully in the June 2023 STAP Brief and Primer Documents, [Simple future narratives brief, and primer](#).

9. [Knowledge management and learning](#)

The criteria for selecting agencies^{iv} to lead the GEF-8 IPs included “recognition for knowledge innovations”, specifically that “the lead agency must have an established track record in creating and mobilizing knowledge innovations that help countries make informed decisions about transforming key economic systems.”

The recent Independent Evaluation Office evaluation of knowledge management noted the benefits of knowledge that is “consistently integrated, easily searchable, and accessible through online repositories”.² The evaluation recommended a strategy that “set[s] out principles and standards for the KM [knowledge management] steps – knowledge capture, development, sharing, dissemination, and application – articulated in reinforced project-level guidelines, requirements, and common KM metrics”.

The main findings of the joint STAP and GEF Secretariat knowledge management convening in May (see section 4) were:

- (i) Common principles: all platforms would benefit from being organized in accordance with some common principles to ensure that they are, easy to access, easy to use and search, interoperable, and available both within the GEF partnership and beyond.
- (ii) Accessibility: in principle, platforms should be open to all and easy to access for those within the GEF partnership and beyond.
- (iii) Searchability: knowledge needs to be easy to use if it is to be translated into action; standardized data and common definitions are important for effective search.
- (iv) Interoperability (the ability to exchange and make use of information) can be enhanced in several dimensions by connecting KM&L platforms on the same theme, connecting Integrated Program KM&L platforms, and connecting platforms to knowledge elsewhere in the GEF and outside the GEF.
- (v) KM&L platforms are an integral part of GEF effectiveness, and they should be subject to the same requirements, including evaluation, as other projects and programs.
- (vi) Durability: ensure that when programs end the learning and knowledge endures.
- (vii) Integration: consider whether interlinked Integrated Program platforms could be a foundation for the future GEF KM&L system?

All of these ideas are explained more fully in the June 2023 STAP Brief, [A Workshop on Knowledge Management and Learning in the GEF: Agency Experiences with Integrated Programming](#).

STAP and the Seventh GEF Assembly

10. [STAP report to the Seventh GEF Assembly](#) (presented to the 63rd GEF Council)

STAP released its report to the Seventh GEF Assembly³ in November 2022.

² GEF IEO, 2022. [Knowledge Management in the GEF](#). Global Environment Facility Independent Evaluation Office, Washington, DC.

³ STAP, 2022. Looking forward to the 7th GEF Assembly in 2023: STAP’s Report on Catalysing Transformational Change through GEF Investments. <https://stapgef.org/resources/stap-reports/looking-forward-7th-gef-assembly-2023>.

The report highlighted the key messages from recent scientific research, noting that progress towards reversing climate change and other forms of environmental degradation has been slow, despite good intentions and efforts to address the drivers of global change. It noted that all major scientific assessments are arguing not just for changes in how the global environment is treated and valued but for such change to be rapid and genuinely transformative – going beyond small tweaks and incremental changes to existing systems to comprehensive and holistic solutions that remodel complex societal, political, economic, and technical structures and incorporate innovations in technology, finance, business models, policy, behaviors, and institutions.

The report noted six key entry points to achieving transformation emerging from the literature and showed that GEF investments, especially the IPs, can contribute significantly, directly, or indirectly, to them (Figure 3).

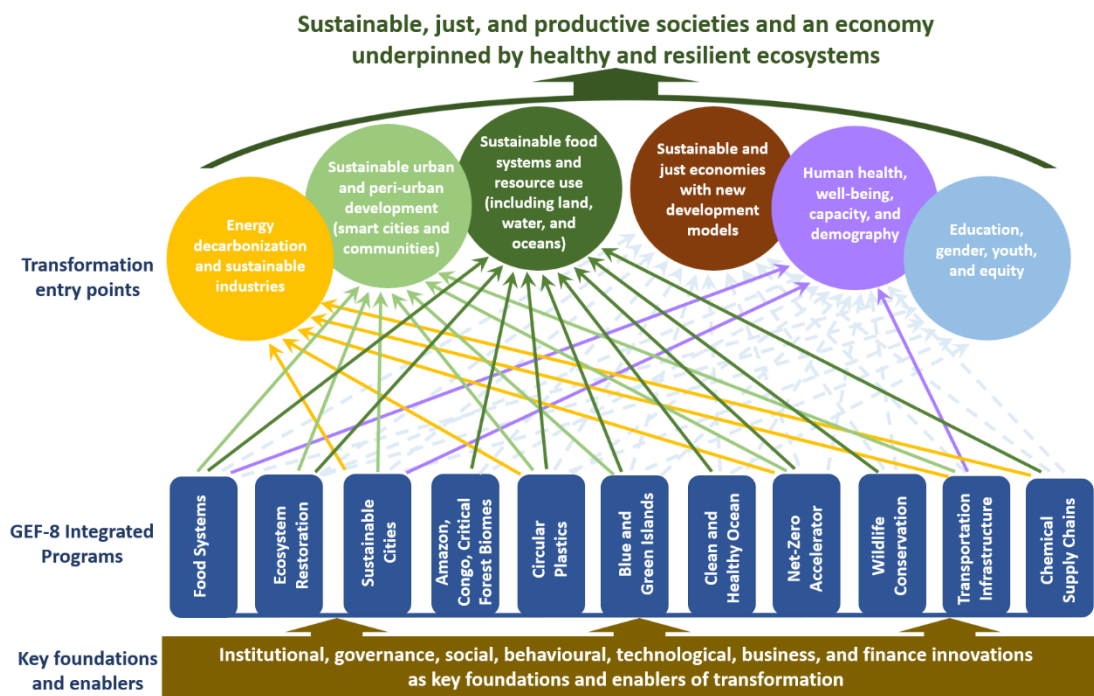


Figure 3: A mapping showing how GEF-8 Integrated Programs contribute to the key transformation entry points in the literature; heavy, solid arrows are the main direct contributions; light, dashed arrows suggest indirect contributions. The three transformations to the right are the core mission of the GEF; the other three contain changes necessary to underpin the enduring achievement of the GEF’s mission and represent potential co-benefits arising from the core mission. (Source: STAP Assembly Report 2022)

The three on the right transformation entry points are most closely aligned with the GEF’s mission as they focus on the environmental foundation necessary to achieve sustainable development, but the other three transformations are often central to achieving the three on the right, as well as potential co-benefits of achieving them; hence, they all require the GEF’s attention.

For the GEF, facilitating transformation will require coordination across the levels at which it operates to ensure that:

- GEF projects are integrated and deliver enduring outcomes within program and portfolio strategic directions.

- GEF integrated programming and focal areas support well-targeted innovation and system transformation.
- The GEF's internal portfolio provides strategies, tools, and systems that promote adaptive and integrated approaches to transformation and KM&L across programs and projects.
- The GEF's leverage is deployed to engage, support, and influence broader alliances to transform global economic systems and knowledge partnerships.

Since November 2022, STAP has provided the following guidance to help the GEF make progress on the recommendations in our Assembly report:

- Develop a clear [risk framework](#) for the GEF that underpins an implementation plan to ensure the framework's implications are reflected in all areas of the GEF's activities.
- Develop a more systematic approach to [innovation](#), based on the risk framework, with practical measures to give effect to this strategy across the GEF's operational levels in a coordinated way.
- Establish a GEF-wide strategy and implementation plan to address [policy coherence](#) across all operational levels, including catalyzing external partnerships that promote better policy coherence.
- Identify which [co-benefits](#) of GEF investments need to be tracked, and why, and establish systems to report on them.
- Establish a new [KM&L](#) system, which is everyone's business in the GEF, with culture change driven from the top down.

11. STAP Science Day event at the Seventh GEF Assembly

At the request of the Canadian government, STAP is organizing a Science Day on Tuesday, 22 August 2023, the first day of the GEF Assembly.

There will be a Youth Leaders Learning Exchange in the morning, where youth speakers will share their experiences and participate in a panel discussion to inspire an invited audience of youth leaders.

The afternoon will feature a discussion on how Indigenous and Local Knowledge could help the GEF deliver GEBs, including a keynote address by a leading scientist and a series of case study presentations from the Arctic and the Amazon.

STAP member updates

Rosina Bierbaum gave a plenary presentation on 24 January at the UN Evaluation Group Annual General Meeting on, "Environmental dimensions of sustainable development". On 25 April she made a virtual presentation on climate adaptation at the GEF regional programming and strategy workshop for LDCs, in Dakar, Senegal. In May, Dr. Bierbaum was elected as one of 33 new members to the American Philosophical Society (<https://www.amphilsoc.org/blog/american-philosophical-society-welcomes-new-members-2023>).

Ed Carr published two papers and a book chapter: "[Adaptation rationales and benefits: a foundation for understanding adaptation impact](#)"; "[Climate services and transformational adaptation](#)"; and "We are not doomed to climate chaos", in *[Not Too Late: Changing the Climate Story from Despair to Possibility](#)*. Dr. Carr also presented at two events: the American Association of Geographers Annual Meeting and the United Nations Environment Programme/Busara Institute Behavioral Science Workshop.

Ngonidzashe Chirinda was appointed to the Technical Working Group of the Climate Bonds Initiative, focusing on the crop and livestock sectors. In April, he participated in an agrivoltaics workshop at Biosphere 2, University of Arizona, which explored approaches to bringing agrivoltaics to scale. Dr. Chirinda was a coordinating lead author on the *[Integrated Assessment of Air Pollution and Climate Change for Sustainable](#)*

Development in Africa report, the decision summary of which is available [online](#). He co-authored peer-reviewed scientific articles on [harnessing domestic biowaste](#), [methane emissions from tropical beef cattle](#), and [methane mitigation from irrigated rice systems in Latin America and the Caribbean](#).

Miriam Diamond participated in the Open-ended Working Group meeting on the Science-Policy Panel to contribute further to the sound management of chemicals and waste and to prevent pollution, held in Bangkok, Thailand. She was a panellist in the deep dive session on the possible scope and functions of the new Science-Policy Panel. Dr. Diamond also delivered an invited lecture, “Solutions and why we need them now to address the global threat of chemical pollution”, at the 9th Annual Richard L Valentine Distinguished Lecture at the University of Iowa. She also co-authored several peer-reviewed papers on chemicals, waste, and pollution, including on [chlorinated paraffin](#), [chemical pollution and biodiversity](#), [per- and polyfluoroalkyl substances](#), and [chemicals and waste governance](#).

John Donaldson was appointed an extraordinary professor in the Department of Plant and Soil Sciences at the University of Pretoria in March 2023. He co-hosted a workshop with southern African conservation scientists and practitioners, exploring models for conserving small but significant populations of threatened species outside of large protected areas. Dr. Donaldson worked with colleagues to extract key science-policy messages from the recent *IPBES Assessment Report on the Sustainable Use of Wild Species*. This work included three publications: “[Status, challenges and pathways to the sustainable use of wild species](#)”; “[The sustainable use of wild species benefits biodiversity and human well-being in South Africa](#)”; and “[Prioritizing sustainable use in the Kunming-Montreal global biodiversity framework](#)”.

Graciela Metternicht published “[Exploring the contribution of geopedology to the implementation of national frameworks for land degradation neutrality](#)”, in *Geopedology: An Integration of Geomorphology and Pedology for Soil and Landscape Studies*, Second Edition, which she co-edited with Joseph Alfred Zinck, Héctor Francisco del Valle, and Marcos Angelini.

Mark Stafford Smith contributed to facilitating a workshop which brought community and Indigenous Peoples together with all levels of government to address challenging possible futures in the Illawarra-Shoalhaven regional plan in May 2023. The workshop asked how to make the region’s growing population resilient to plausible increased threats from bushfires, flooding, landslides, and coastal inundation.” He also published two papers: “[Pragmatic cost–benefit analysis for infrastructure resilience](#)” and “[Climate change adaptation guidance: clarifying three modes of planning and implementation](#)”.

Blake Ratner will complete his term as STAP member for international waters at the end of June and will continue as an advisor working on risk appetite and other priorities. Collaborating for Resilience, the nonprofit he leads, is co-leading design of a new initiative addressing systems barriers to landscape regeneration in India, with support from Co-Impact and the Skoll Foundation.

ⁱ See GEF IEO (2022).

ⁱⁱ See GEF (2021a).

ⁱⁱⁱ <https://www.gefio.org/sites/default/files/documents/evaluations/msme.pdf>, https://mdpi-res.com/sustainability/sustainability-12-03225/article_deploy/sustainability-12-03225.pdf?version=1587037574, <https://www.gefio.org/sites/default/files/documents/evaluations/multiple-benefits-2016-v1.pdf>, <https://openknowledge.worldbank.org/handle/10986/7137>, <https://www.gefio.org/documents/cw-study-2017-article-health-co-benefits-gef-chemicals-and-waste-focal-area>

^{iv} GEF. 2022. “[GEF-8 Integrated Programs lead agency terms of reference and selection process](#)”. Global Environment Facility, Washington, DC.