

Scientific and Technical Advisory Panel



Rosina Bierbaum, Chair



Mark Stafford Smith Advisor



Blake Ratner Advisor



Christopher Whaley
Advisor



Sandy Andelman Biodiversity



Jonathan Barnett Climate Adaptation



Miriam Diamond
Chemicals and Waste



Susanne Schmeier International Waters



Ngonidzashe Chirinda Climate Mitigation



Ermias BetemariamLand Degradation

Presentation order



New science



STAP activities and reports



Observations on the work programs

New science





Global mean temperature 1850 - 2024

Difference from 1850 - 1900 average

WMO



+0.6°C

+0.4°C

+0.2°C

0°C

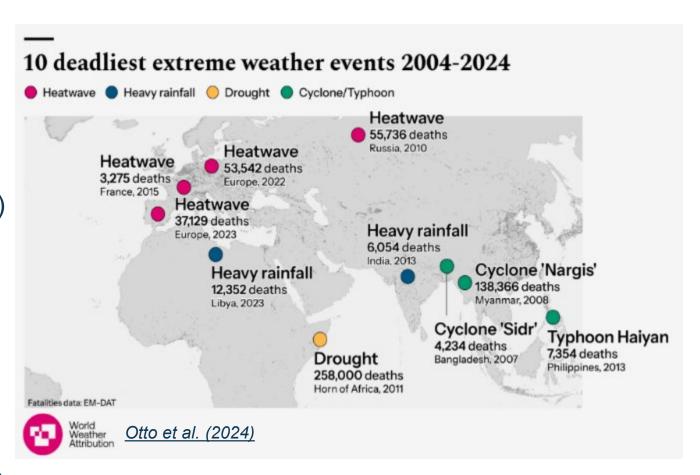
-0.2°C

-0.4°C



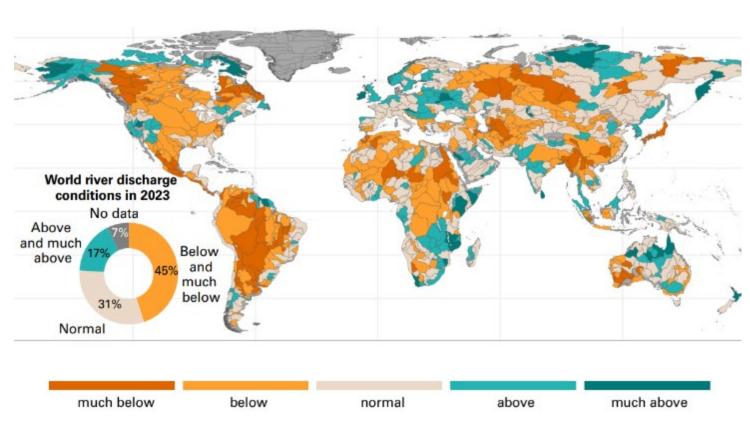
Climate change worsens weather disasters

- Advanced attribution methods explain that climate change worsened the ten deadliest weather events since 2004, contributing to more than 570,000 deaths.
- Climate change:
 - doubled likelihood of floods in India (2013)
 and increased the intensity by 11%
 - increased likelihood of Russian heatwave (2010) by a factor of 80
 - intensified Atlantic hurricanes, from category 3 to 4
 - hurricanes cost \$500 billion in damages to U.S. economy





WMO State of Global Water Resources 2023



Mean river discharge for 2023 compared to the period 1991–2020 (for basins larger than 10,000 km²)

 Severe stress on global water supplies; five consecutive years of below-normal river flows and reservoir inflows.

• 2023: driest for global rivers in the past 33 years.

 Erratic hydrological cycle due to climate change; for example, floods in the Horn of Africa

Source: <u>WMO (2024)</u>.



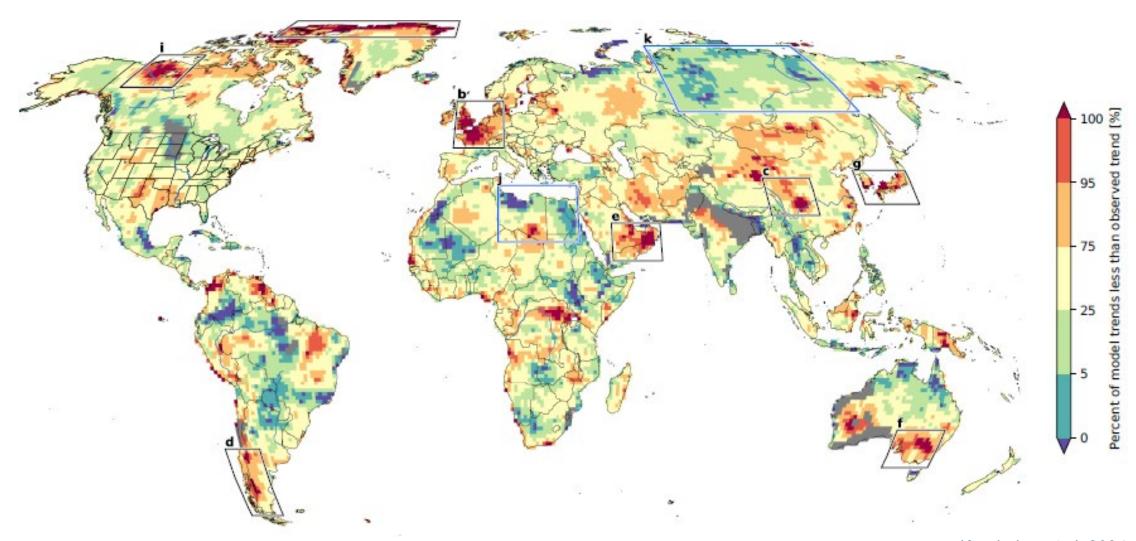
Climate impact on health: 2024 Lancet report



- Heat-related mortality of people older than 65 years increased by a record-breaking 167%, compared with the 1990s.
- Increasing risk from life-threatening extreme weather events, e.g., >60% land area experienced extreme precipitation between 2014-23 leading to floods, more infectious disease spread, and water contamination.
- Only one-third of the global population, are covered by early warning systems for health.
- More broadly, one-third of the global population, mainly in LDCs and SIDs, are not covered by early warning systems for weather hazards.

Consistent with recent research: extreme heat is increasing faster than predicted by climate models!

Heatwave hotspots outpace climate models



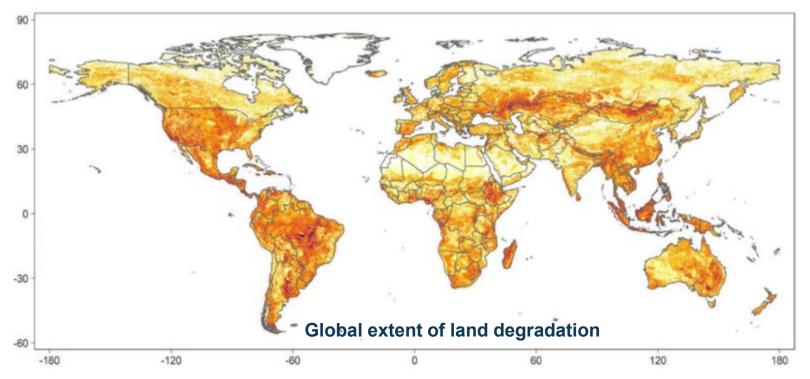
Are land-based sinks reaching breaking point?

- A new concern about the climate change
- Unprecedented 86% increase in annual growth rate of atmospheric carbon at the Mauna Loa Observatory
- But fossil fuel emissions grew less than 1% in 2023
- Land-based carbon sinks decreasing, caused by feedback loop from past warming
- Largest Iosses in the Amazon (drought), Canada (extreme fires), and South-East Asia (drought)



Unprecedented rate of land degradation

- 15m sq km of land already degraded; rate of land degradation estimated at 1m sq km per year
- Drought costs > \$300 billion a year; projected to affect 75% of the world by 2050



At COP-16, drought received increased attention, which included a STAP/GEF side event where three GEF-supported countries featured drought initiatives (Argentina, Namibia, Mauritania).

The Ridayh Global Drought Resilience Partnership was also launched with an initial investment of \$2 billion with a goal of supporting 80 of the most vulnerable drought-hit countries.

Continuing biodiversity decline



WWF Living Planet Report 2024

- 73% decline among studied wildlife populations since 1970
- Freshwater species suffered most decline (85%); terrestrial (69%), marine (56%)
- Faster decline in Latin America and the Caribbean (95%), Africa (76%), Asia & the Pacific (60%)
- Direct exploitation and habitat loss remain the biggest threats



IUCN Global Tree Assessment 2024

- First assessment of trees
- 38% threatened with extinction
- Trees now account for more than one-quarter of species on the IUCN Red List
- Extinction threats in 192 countries
- Highest proportion in islands



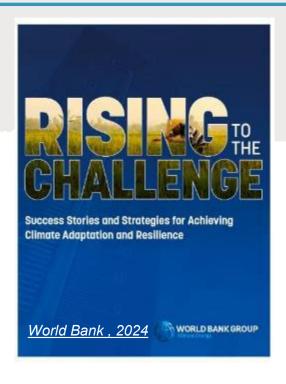
Progress in conservation efforts



- But the **Protection Planet Report 2024** shows some progress...
- First official Global Biodiversity Framework 30x30 target progress review
- About 17% of land and inland waters and 8% of ocean and coastal areas are protected – an increase since 2020
- 51 countries and territories already surpass the 30% target for land and 31 countries for marine areas.



More progress...



The World Bank's report on "Success Stories and Strategies for Achieving Climate Adaptation and Resilience"

- Development, climate adaptation, and resilience are interlinked: essential to mainstream adaptation and resilience into economic and development policies
- Good examples of effective adaptation practices across sectors, regions, and income levels - provide lessons and offer opportunities to replicate and scale up proven solutions
- For example, the Ahmedabad Heat Health Action Plan (India),
 Bangladesh farmers end-to-end hydromet services, and Vanuatu's climate and disaster-resilient development

STAP activities and reports



STAP at GEF partnership events

- CBD COP 16 in Cali, Colombia
- UNCCD COP 16, Riyadh, Saudi Arabia

 KM&L workshops on food systems integrated programs (Panama, Rome, Kenya); Forest IPs (Guatemala, Liberia); Net Zero (Geneva); Chemical Supply Chains (Paris); Policy Coherence (Costa Rica)











STAP reports to the Assembly

- STAP Assembly Report, 2014: integration within and across FAs to achieve GEBs
 - STAP Assembly Report, 2018: systems thinking, learning, transformation
- STAP Assembly Report, 2023: transformation and durability in key systems

STAP GEF-9 expert workshop

The two-day workshop in June 2024 after Council

 Discussed 3 priority issues: whole of society, policy coherence, transformation - and how to translate them into GEF practice

High-level expert conclusions:

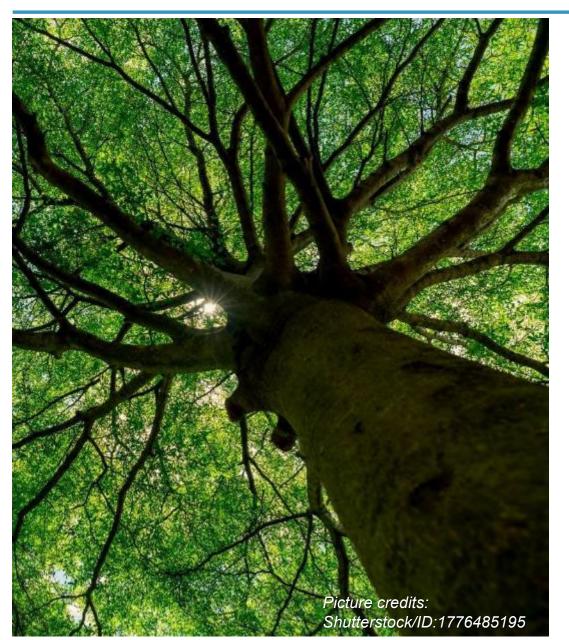
- Establish and articulate a clear goal
- Need for many different partnerships: finance, science and tech, civil society, IPLCs, YOUTH
- Work more closely with other institutions, e.g., IMF
- Address equity and power dynamics in stakeholder engagement
- Utilize new tools to mine past experience







Overview: 7 possible foci for GEF-9



- Build a GEF theory of change to drive portfolio-wide investment
- 2. Invest in innovation and manage risk
- 3. Support policy coherence
- 4. Enable civil society
- 5. Work to influence market transformation
- 6. Revisit the GEF results framework
- 7. Foster early, adaptive learning, and networked knowledge management



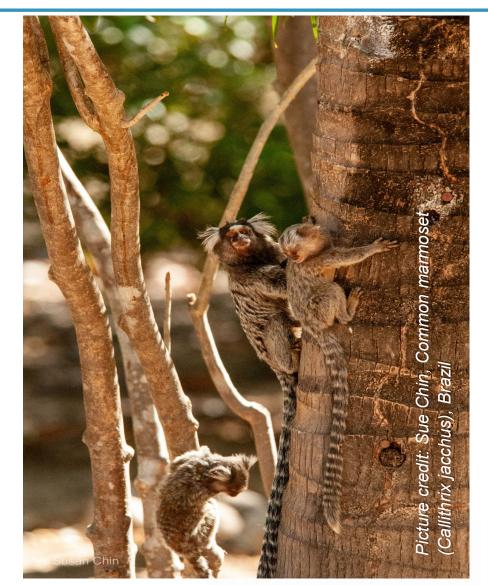
1. Build an overarching GEF-9 theory of change to drive portfolio-wide investment



- To guide coordination across all the operational levels of the GEF
- To show how the GEF can contribute to transformation in key systems, e.g. food, cities, and forests
- To identify levers for systems transformation GEF-8 ones good, but could e.g., add behavior, capacity.

2. Invest in innovation and manage associated risk at the portfolio and program levels

- Define the GEF's role in delivering innovative solutions
- Identify problems requiring innovation, and commission solutions from diverse sources
- Embed innovation in the project and program design cycle
- Be clear about how innovation risks will be managed



3. Support policy coherence at multiple levels



- A clear definition of policy coherence that emphasizes environmental outcomes
- Strengthen dialogue, e.g. through the Country Engagement Strategies
- Partner with other institutions, like the World Bank, IMF, and regional development banks
- Support interministerial and intersectoral coordination for policy coherence



4. Enable civil society to strengthen the social foundations for transformation

- "Whole of society" approach
- Role of civil society in project design
- Capacity building for civil society
- Empowering IPLCs





5. Work to influence market transformation in targeted sectors



- Strengthen national policy and the regulatory environment
- Build capacity to attract private finance
- Work more closely with other funding sources
- Ensure that blended finance projects give equal weight to environmental and financial benefits



6. Revisit the GEF results framework

- Capture socio-economic and adaptation co-benefits
- Adopt lead indicators for transformation to measure the GEF's contributions
- Consider whether core indicators are sufficiently focused on environmental outcomes





7. Foster early and adaptive learning, and networked knowledge management



- Need to know what works and what doesn't, why, how, and in what context
- Assess how current integrated programs are performing to inform future strategy
- A different and more dynamic system of monitoring, evaluation, and learning
- Learn from past projects
- KM&L systems should be integrated, open and networked.



Work to explore a more dynamic system of monitoring, evaluation, and learning

- The need for more effective and responsive monitoring and learning
- Analyze how current IPs are performing
- Early assessment of emerging outcomes and more rapid adaptation
- assumptions in the TOC
- How to do this? Monitor against key



Use PIRs and MTRs

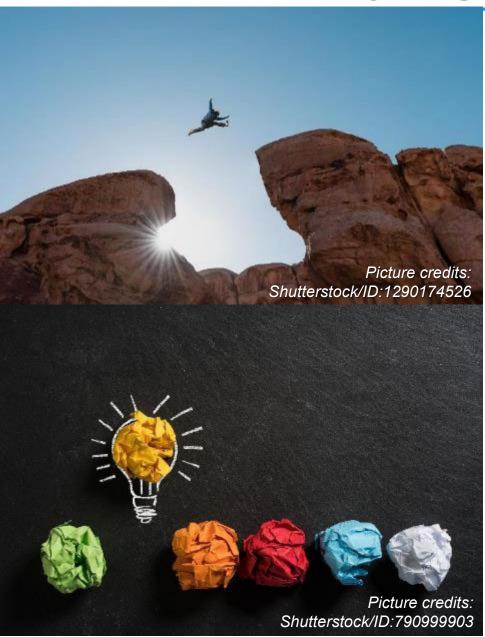


Community-based approaches

- STAP's contribution following an IEO recommendation
- CBAs useful for projects that involve ecosystem change, where people have rights
- Factors to consider in designing CBA projects
- How to assess if CBA elements have been successfully incorporated



Clarifying risks in GEF projects



In February, the GEF adopted a Risk Appetite which differentiated between three types of risk – context, implementation, and innovation.

The Council signalled a higher appetite for innovation risk in return for higher expected rewards in pursuit of transformational change.

To help guide project developers, STAP's note explains how to address risks in project logic, and the risks that remain despite good project design; and how to interpret, describe, and assess innovation risk.



Target 18 convening

- Target 18: to reduce harmful subsidies(by \$500m a year by 2030), and to scale up positive incentives for nature
- Key messages:
 - Policy coherence
 - Behavior change
 - Public-private partnerships
 - More appetite for innovation and risk
 - Co-benefits
 - Capacity building
 - Leadership at all levels

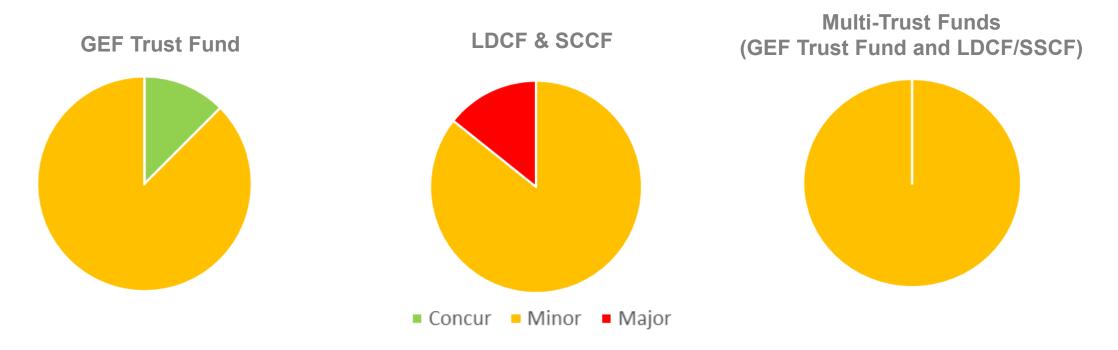




Observations on the work programs



Observations on the work programs I



Strengths

- Good initial theories of change
- More uptake of future narratives
- Good use of systems thinking

Areas for improvement

- Linking assumptions to outcomes in theory of change
- Differentiating between project design risk and residual risk
- Embedding gender in project design

Observations on the work programs II

Montenegro/UNDP (GEFID 11533) "Integrated management of multiple-use landscapes/seascapes":

- Built on a good theory of change with a strong focus on governance and policy coherence
- Incorporates future narratives that consider policy and governance, financial uncertainties, and climate change
- Holistic approach to managing biodiversity across land and seascapes





Global/UNIDO & ADB (GEFID 11681) "Chemicals and Waste Financing Partnership Facility":

- Innovative financing facility
- Embeds gender with a focus on women becoming agents of change
- Components include gender-specific indicators

