Scientific and Technical Advisory Panel Report to the 56th Meeting of the GEF Council

"Shaun the Sheep" aired 2006-2016, and was broadcast in over 180 countries.

STAP Panel Members and Advisers

Thomas Lovejoy
Adviser to Chair

Rosina Bierbaum
Chair

Mark Stafford Smith
Adviser to Chair

Saleem Ali
Climate Change Mitigation

Rosie Cooney
Biodiversity

Jamidu Katima
Chemicals & Waste

Graciela Metternicht
Land Degradation

Blake Ratner
International Waters

Ferenc Toth
Climate Change Adaptation

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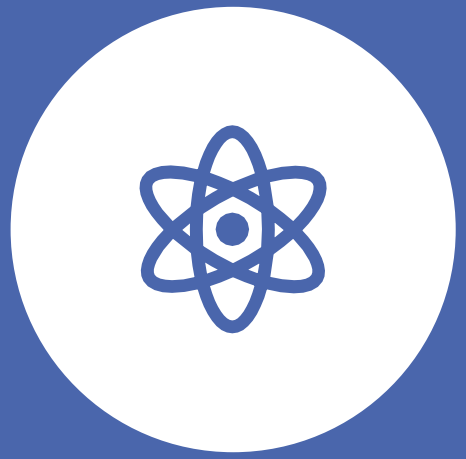
New science

Impact Programs

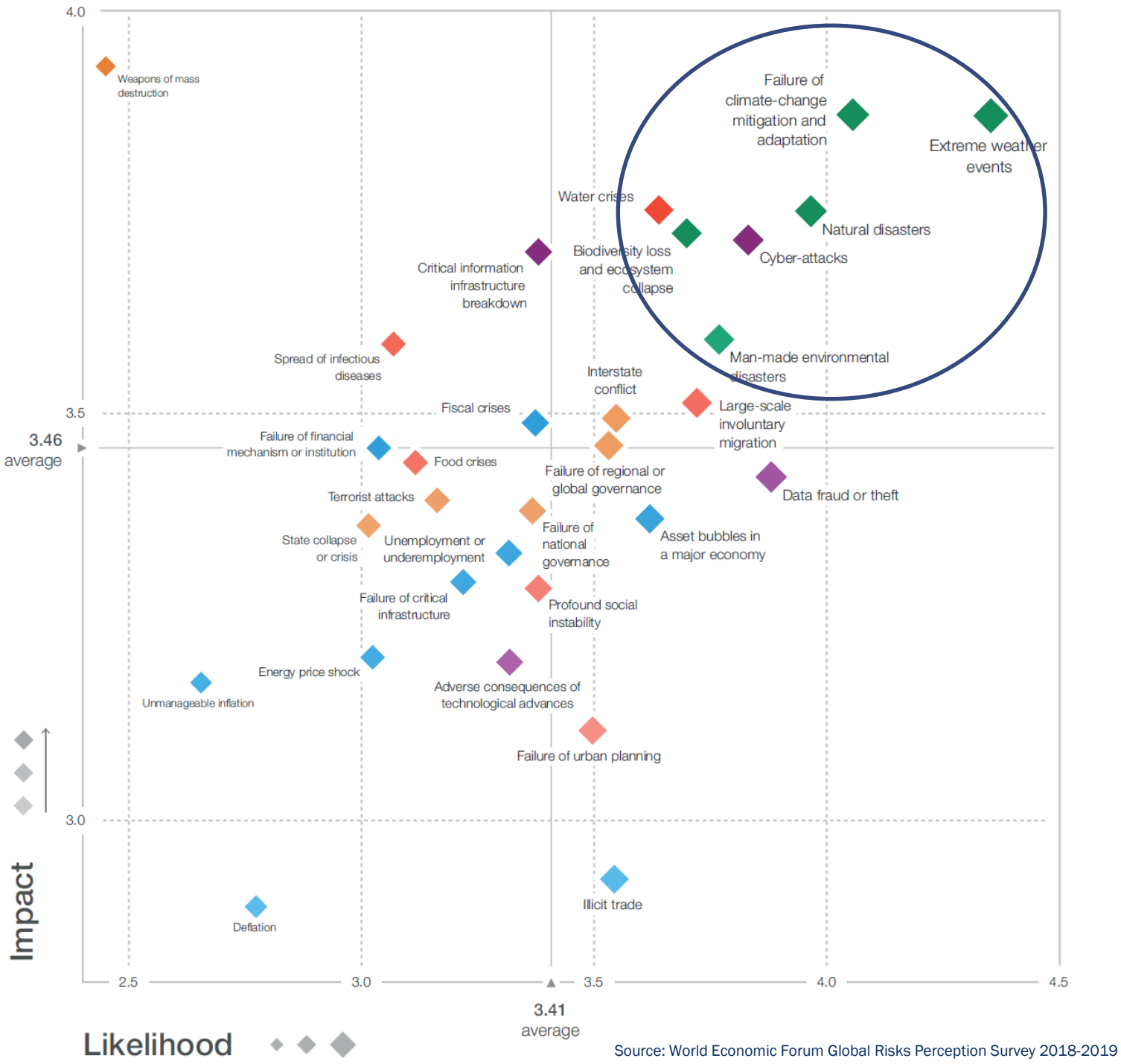
Four papers

STAP work program

Observations on GEF work program



NEW SCIENCE



Source: World Economic Forum Global Risks Perception Survey 2018-2019

The Global Risks Landscape 2019

IPBES: Key findings

- 1 million species at risk of extinction
- Key drivers : land/sea use change; exploitation; climate change; pollution, and invasive species
- As production of food, fiber, and energy increase, other services of nature (such as regulating climate) are decreasing
- 75% of land area and 66% of oceans significantly altered
- Indigenous Peoples and Local Communities important in the conservation and sustainable use of biodiversity

Photo: Mossy frog (Theloderma corticale) by mgkuijpers

Photo: Blue Seastar on Seagrass" by ead72

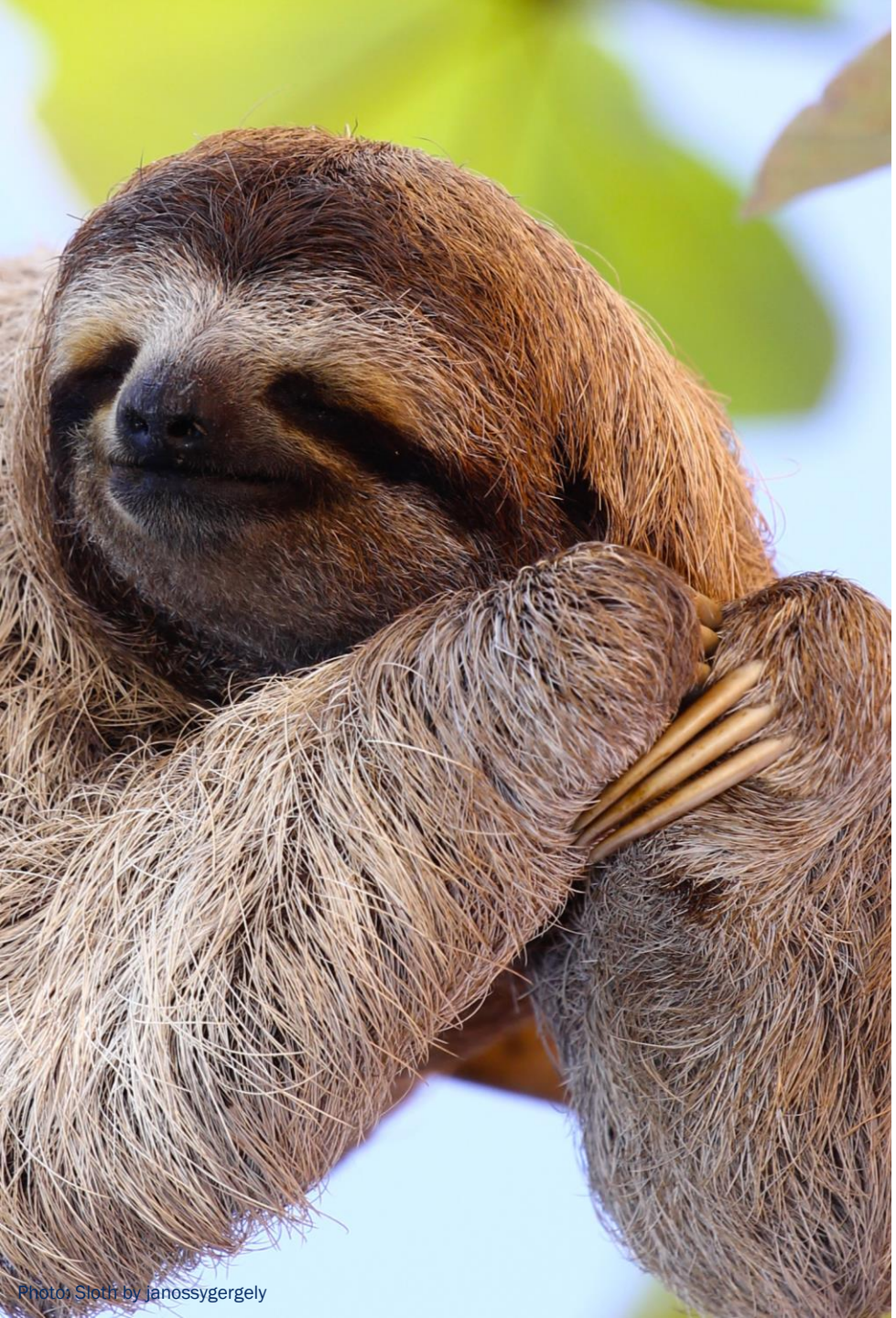
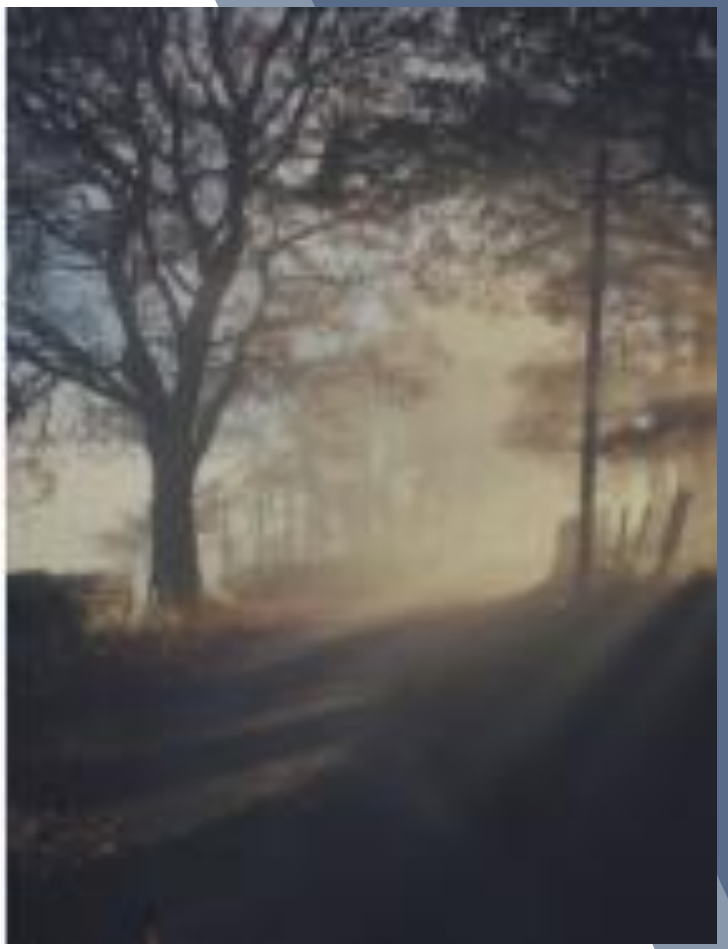


Photo: Sloth by janossygergely

IPBES: Key findings

- Most of the Aichi Biodiversity Targets likely to be missed
- Continuing loss of biodiversity, coupled with climate change, threaten achieving most of the UN SDGs
- Business-as-usual scenarios show worsening loss of biodiversity
- Nature-based solutions for climate change can be beneficial for biodiversity (e.g., restoration with native species), but can be detrimental (large scale bioenergy replacing native vegetation)
- Transformative changes need inclusive governance systems, evolution of economic systems, multi-sectoral planning, incentives for sustainable production and consumption, etc.

IPCC: May 2019: Refinement to the 2006 Guidelines for National Greenhouse Gas Inventories



Mainly an update of the 2006 guidelines. Examples relevant to the GEF:

- calculation of soil carbon stock and storage under different management regimes, emission factors for rice cultivation
- methane emissions estimation from landfills at solid waste disposal sites
- methane, nitrous oxide and CO_2 from incineration and open burning of waste

The IPCC agreed to develop methodologies for short-lived climate forcers like black carbon and other air pollutants

IPCC: Climate Change and Land; Ocean and Cryosphere in a Changing Climate

- August 2019: Climate Change and Land
- September 2019: Ocean and Cryosphere in a Changing Climate

GCA Commissioners met May 21; Next meeting July 9-10

GCA MESSAGE:

Adaptation is about integrating climate risk into growth and development

It is about pursuing growth and development differently and better

GCA MESSAGE: The economic case for adaptation is clear and compelling

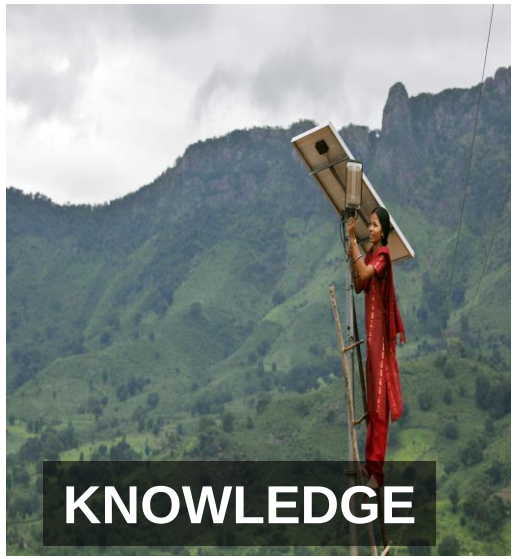
- DISASTER RISK REDUCTION: $1 in investment saves $6 in avoided loss (U.S. study)
- NATURE-BASED SOLUTIONS: Mangroves 2-5x more cost-effective than engineered solutions
- INFRASTRUCTURE: Upgrading infrastructure has a benefit cost ratio > 4 (developing countries)

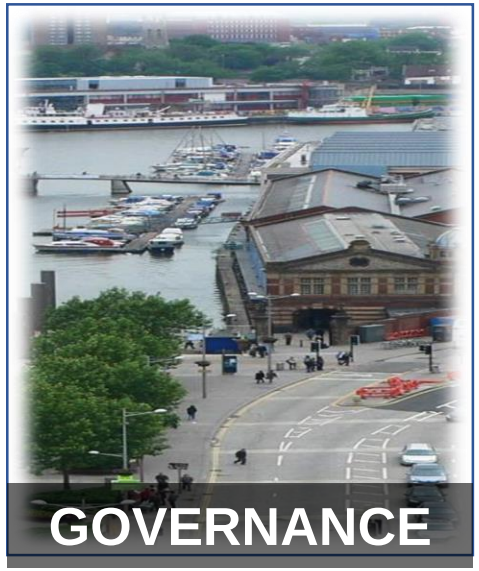
GCA Products

- 50 p. Synthesis (high-level document for policymakers); UNGA September 2019
- 150 p. Technical document, delivered at the UNFCCC COP, November 2019

Synergy with GEF directions:

- **nature-based solutions, cities, water, food, and an increased focus on knowledge, Innovation, governance, and finance**





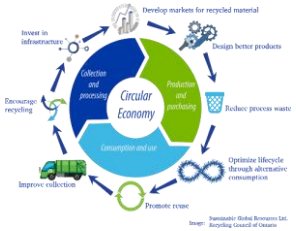
Global Chemicals Outlook II (GCO-II)

Suggested GEF Actions

Support projects that address regulatory and institutional gaps

Promote the integrated approach in GEF investments

Increase engagement with the private sector



Invest in projects focused on the life cycle and circular economy


Photo: Pascal Maitre


Photo: Thomas Mangelsen


Photo: Camilo Bruno

Impact Programs

6 STAP Criteria to promote innovation, integration, and transformation in the IPs

- Innovation
- Barriers to transformation
- Maximize GEBs, manage trade-offs, including climate risk
- Multi-stakeholder processes
- Theory of change
- Monitoring, evaluation, learning, and knowledge management

6 IP Criteria: innovation; and barriers

- **Innovation**
  - + All IPs identified innovations
  - - More types of innovation? How to scale? All scalable?

- **Barriers to transformation**
  - + Barriers usually described
  - - Implications for program design? Vested interest barriers?

6 IP Criteria: risks; and stakeholder engagement

- **Maximize GEBs, manage trade-offs, including climate risk**
  + Risks usually well-described
  - Explicitly addressed? How to manage trade-offs? Implications for design?
- **Multi-stakeholder processes**
  + All had a strong emphasis on multi-stakeholder processes
  - Child projects engaged? Barriers to engagement?

6 IP Criteria: theory of change; and MEL/KM

- **Theory of Change**

  + TOCs generally strong on goals

  - Causal links clear? TOCs for value chains, child projects? Pathways identified? Assumptions spelt out?

- **Monitoring, evaluation, learning, knowledge management**

  + Central element of all IPs

  - Metrics and indicators? How will learning support adaptive management? How to track M&E outcomes to KM?

FOUR PAPERS

Durability
Climate risk screening
Local commons
Land degradation neutrality

Achieving More Enduring Outcomes From GEF Investments

- A request from the GEF secretariat
- Build on STAP's findings on 'integration' and climate risk screening.
- A comprehensive analysis of the literature is on the STAP website.

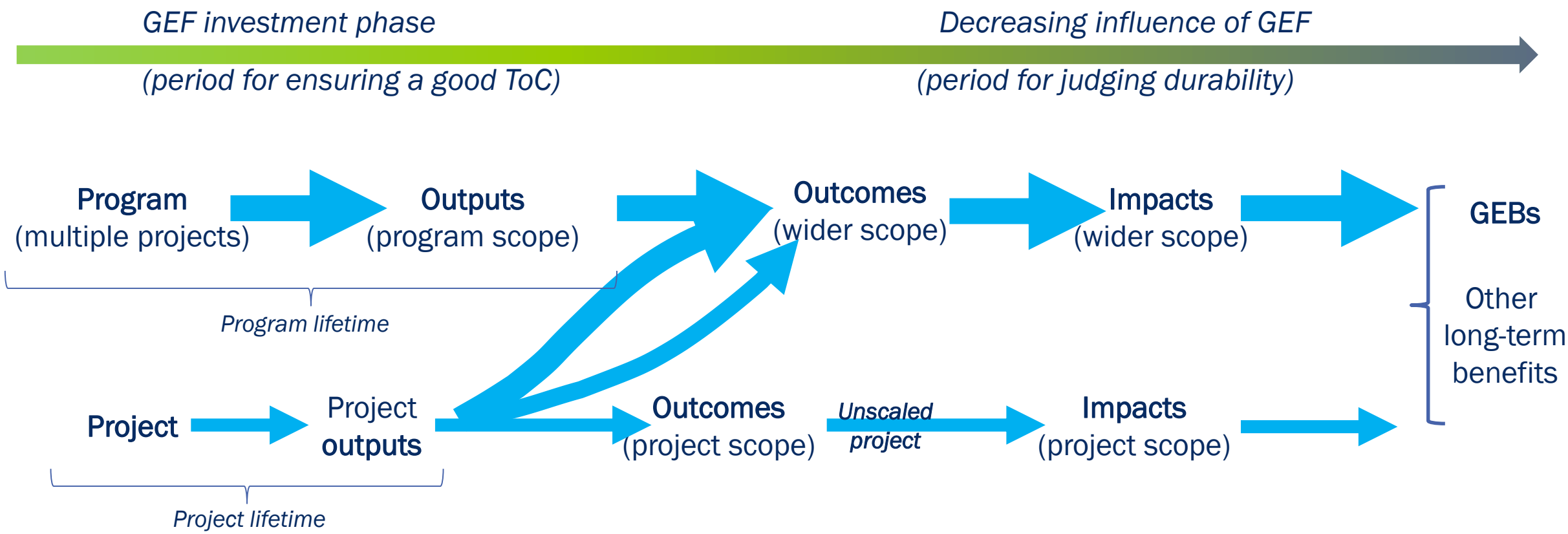
Photo: Shawn W.

http://www.stapgef.org/achieving-more-enduring-outcomes-gef-investment

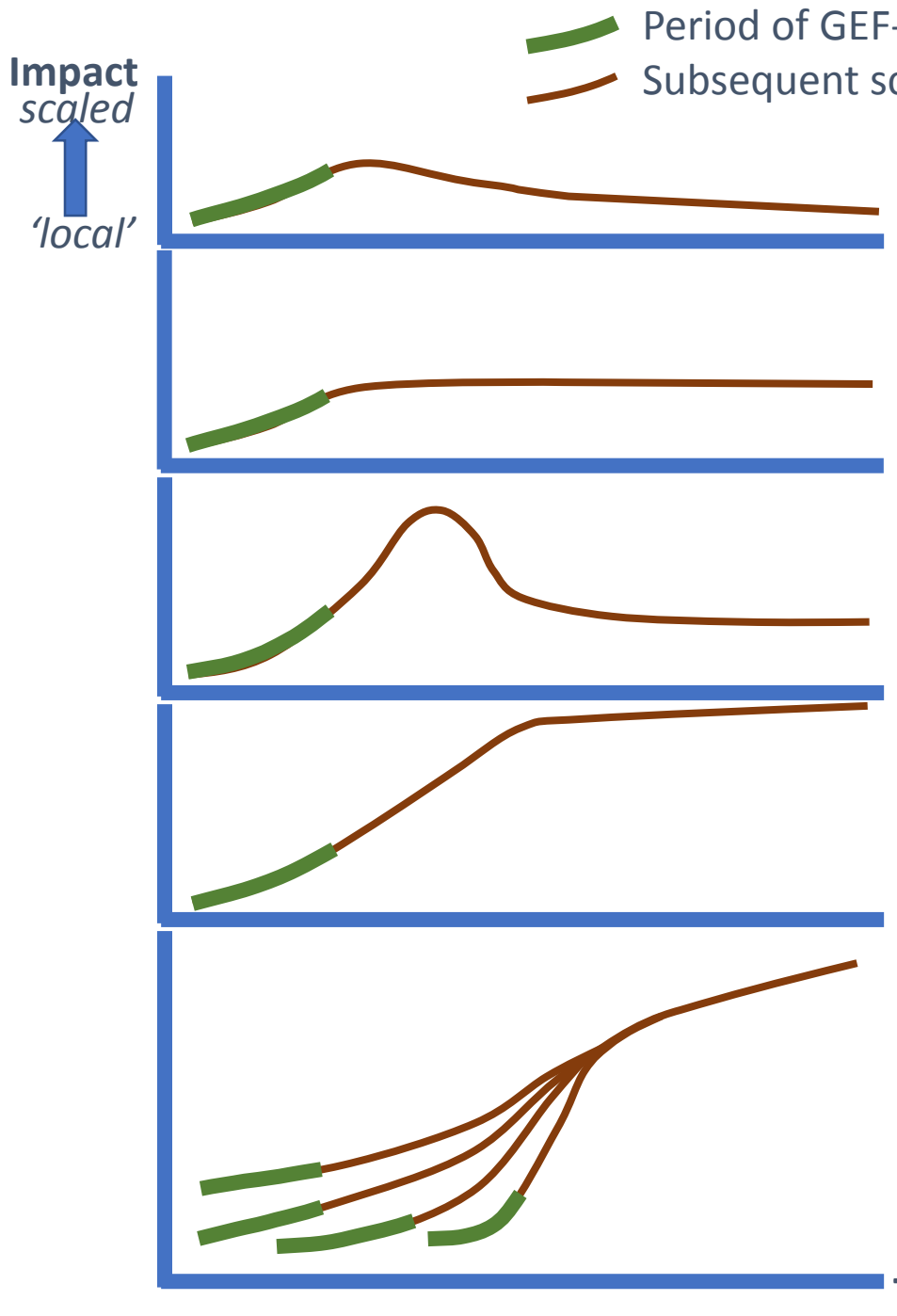
Why a focus on Durability is warranted

- Enduring impacts need to persist in the face of long-term external changes, e.g. climate
- Transformational change does not necessary imply greater durability
- Larger investments do not necessarily guarantee transformational success
- Transformation needs to be embedded in planning from the outset
- Systems change for transformation requires innovation
- Greater innovation brings the likelihood of higher failure rates

Relationship between some terms



From outputs to enduring impacts and delivery of GEBs



(a) Project achieves local impacts but fails to endure

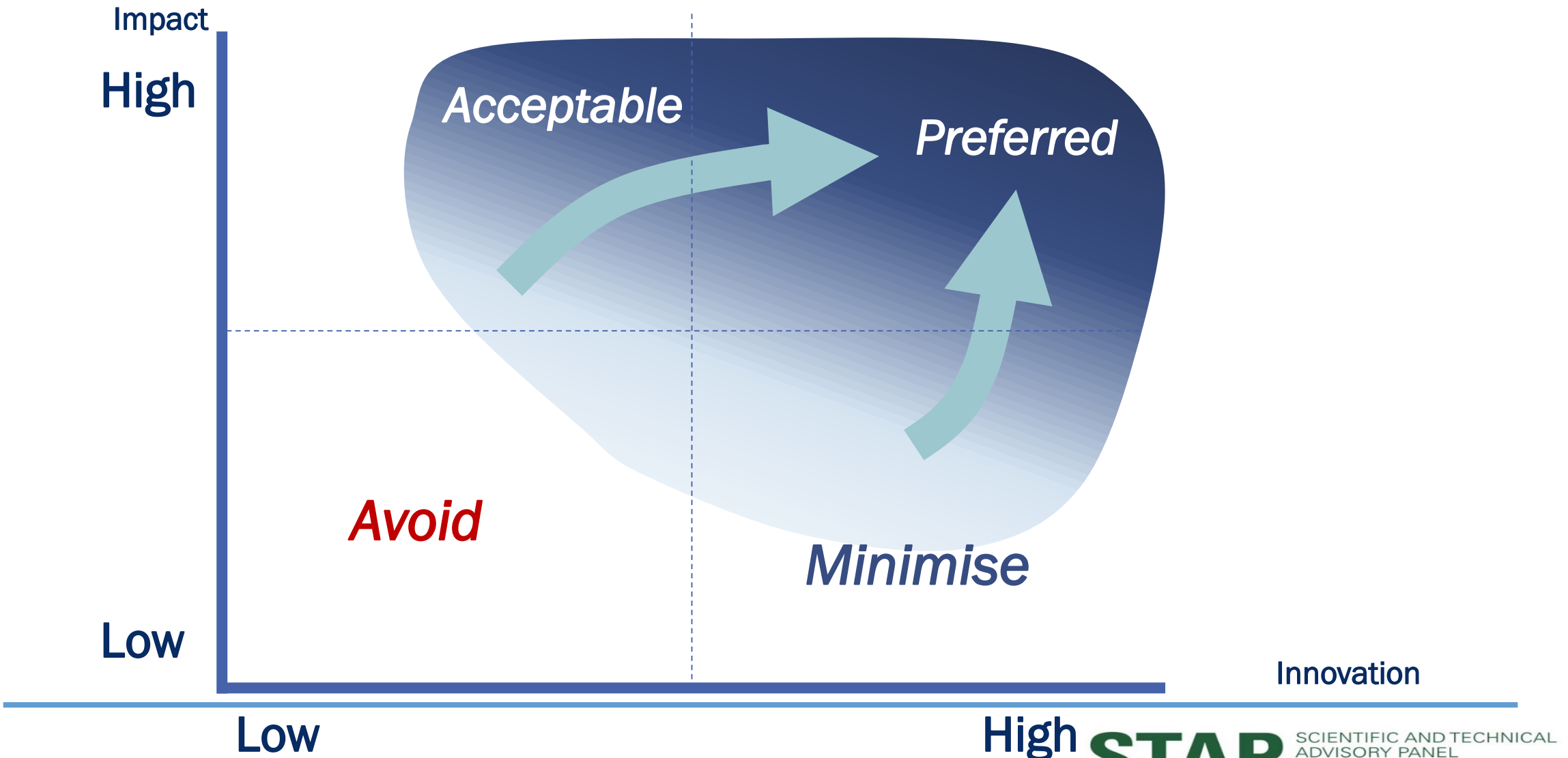
(b) Project achieves enduring local impact only

(c) Project scales, but scaling does not endure (due to poor design or unforeseen changes)

(d) Project scales durably (e.g. success demonstrated and private sector or policy self-interest takes over)

(e) Multiple projects integrated in a program to wide impact durably (e.g. major part of value chain affected or multi-country policy change achieved)

Council needs to decide on its appetite for risk



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STAP's recommendations on Durability

1. Council needs to articulate an explicit risk appetite
2. Apply systems thinking
3. Develop a clear rationale and robust theory of change
4. Choose the innovations
5. Analyze the barriers to, and enablers of, transformation
6. Maximize GEBs, manage trade-offs, including climate risk
7. Develop multi-stakeholder platforms
8. Establish a monitoring, evaluation, learning, and knowledge management process

NOTE: Most of these amplify the Integration and Climate Risk Screening papers!

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STAP guidance on climate risk screening

- The importance of addressing climate risk was recognized by the GEF Council in 2010

- In December 2018, the Council approved a new safeguard policy which said that, “short- and long-term risks posed by climate change …[should be]… considered systematically in screening, assessment and planning processes…”

- This guidance builds on climate questions in STAP’s screening guidelines (June 2018)


Photo: Mauricio Lima

Climate risk screening: review of GEF agency methods

STAP review indicates that risk screening is variable across GEF agencies

	Criteria		
Agency	Identifies climate risks	Considers how risks might affect project's objectives	Recommends action to ameliorate climate risk
1			
2			
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Climate risk screening: 4 steps

Four steps in a climate risk assessment (IPCC):

N.B. Assessing climate risk is an integral part of designing a project, not a risk treatment post-design, after which options are likely to have narrowed

Examples of climate risks

- **Water:** ranges of marine organisms shifting to higher latitudes (up to 40 km per year) creating novel ecosystems
- **Chemicals**: +1°C estimated to increase the volatility of POPs by 10-15%, e.g. polychlorinated biphenyls (PCBs)
- **FOLUR:** significant reductions in global production of wheat, rice, maize, and soybeans, for each 1°C increase in global mean temperature
- **Amazon**: global warming of 3° – 4°C may result in a significant dieback of the forest

Climate risk screening: next steps

- Environmental and social safeguards: June and December 2019 GEF Secretariat will assess agencies against new policy
- STAP will convene a workshop with the GEF Secretariat and agencies to promote learning, compare screening efforts, and discuss best practices
- STAP will be reporting on climate risk screening for each work program.

Local commons for global benefits: indigenous and community-based management of wild species, forests and drylands

- A discussion at the International Dialogue on the Global Commons in 2016
- Based on an extensive review of literature related to outcomes of community-based natural resource management and environmental outcomes

Photo: Child from Tupi Guarani tribe by filipefrazao

http://www.stapgef.org/local-commons-global-benefits-indigenous-and-community-based-management-wild-species-forests-and

Local commons for global benefits

- A large portion of the Earth's land area is communally - managed or used by local communities
- Governance is often weak
- Lack of legally recognized tenure
- *De facto* "open access" areas susceptible to destruction and degradation
- Strengthening community rights to manage land and resources is a promising approach

STAP's recommendations

- Assess the presence of IPLCs and current rights to use and manage land resources
- Problem analysis should pay particular attention to tenure issues driving negative environmental outcomes
- Consider how shifting rights, incentives and capacity could be transformative
- Some fundamental design characteristics including: encourage secure land and resolve tenure for IPLCs; enable communities to gain from sustainable use of wild resources; and, support inclusive, equitable and effective community governance

Photo: Community meeting at Mumbwa Game Management Area by Virginia Gorsevski

http://www.stapgef.org/local-commons-global-benefits-indigenous-and-community-based-management-wild-species-forests-and

Land Degradation Neutrality:

- Fundamental aim for LDN is to ensure no net loss of healthy and productive land
- LDN will be achieved through a combination of avoid, reduce, reverse land degradation
- 122 countries have committed to LDN
- GEF supporting countries on LDN
- Offer practical guidance for LDN projects
- Guidelines at UNCCD COP 14 Delhi


Photo: Guillaume Nadeau /ECOTIERRA


Photo: Peter Minang

Land Degradation Neutrality: draft guidelines

Support of LDN in the land degradation focal area and the IPs for FOLUR and Drylands. STAP agreed with the GEF secretariat that guidelines should be developed

Guidelines will be presented at the UNCCD COP 14th in September 2019

STAP’s work program

STAP's work program

- Land degradation neutrality guidelines: September 2019
- Remote sensing
- Climate risk screening workshop
- Blockchain workshop
- Multi-stakeholder dialogues
- Theory of change
- Implications of the Global Commission on Adaptation for the GEF

Observations on the GEF's work program

Observations on the June work program

On climate risk:

- Some projects contained preliminary climate risk screening
- Some projects did not consider how future climate change would affect project objectives or durability
- Some projects considered climate risk only in terms of hazards or extreme events
- Some identified climate risks, but did not present ameliorative measures
- In LDCF/SCCF projects, there is scope to build adaptive (natural resource and livelihood investments), absorptive (disaster risk management), and transformative (improved governance and enabling conditions) capacity

The End! Questions?

Photo: Jurgen Otto