Youth Leaders Learning Exchange
Rosina Bierbaum, Chair
Scientific and Technical Advisory Panel of the GEF
GEF Assembly, Vancouver, August 2023

J. Hennessey, Black Bear, Kitasoo/Xai’xais Nation
Welcome to STAP Science Day

Morning:

Youth Leaders Learning Exchange -
- to inspire action

Afternoon:

Indigenous and Local Knowledge for greater GEBs
- case studies from the Arctic and Amazon

Photo: Sue Chin

Douglass Neasloss and Coastal First Nations, Spirit Bear, Kitasoo/Xai’xais Nation
What is STAP?

STAP provides independent scientific and technical advice to the GEF Council on GEF projects, policies, and programs.
STAP has two main roles in the GEF Partnership

1. Provide advice
   - State of science
   - Horizon scanning
   - GEF programming priorities
   - Technical guidance

2. Screen projects & programs
   - GEF full-sized projects
   - Integrated programs

M. Calcari Campbell, Dungeness Crab, Kitasoo/Xai’xais Nation
Drivers

Growing Human Pressure

Climate change

Ecosystem decline

Surprise

Source: Modified from J. Rockstrom
Climate change futures

https://interactive-atlas.ipcc.ch/
Extreme weather can be attributed to climate change

https://www.carbonbrief.org/mapped-how-climate-change-affects-extreme-weather-around-the-world
Intensifying ecological trends

**Land use change**
- Loss of ecosystem services, such as filtration of air and water, climate regulation, cultural values

**Biodiversity loss**
- Continued decline in species number and composition of ecosystems, intactness, connectivity

**Pollution**
- Waste generation, anthropogenic water, land and air pollution, human health effects…

Images: top to bottom:
- Shutterstock/WHO African Region
- Deforestation in Indonesia; Ulet Ifansasti/Greenpeace
- Toxic water discharge in Russia; James P. Blair/National Geographic
Biodiversity loss

Risk of species losses

Percentage of animal species and seagrasses exposed to potentially dangerous temperature conditions

Includes 30,652 species of birds, mammals, reptiles, amphibians, marine fish, benthic marine invertebrates, krill, cephalopods, corals, and seagrasses.

1.5°C

2.0°C

3.0°C

SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT REPORT (AR6) – March 20, 2023

Pollution creates unjust outcomes

Source: Gupta et al. (2023) Earth system justice needed to identify and live within Earth system boundaries. Nature Sustainability
Environment is “natural capital”

$44 trillion of economic value generation – more than half of the world’s total GDP is dependent on nature

WEF, 2023
Nature-based solutions can assist reach goals

Source: “Early systems change necessary for catalyzing long-term sustainability in a post-2030 agenda”

Source: “Getting the message right on nature-based solutions to climate change”
Great momentum to take climate, nature-positive actions

- Drumbeat of science
- Impacts are being felt and are expensive
- Attribution of climate change impacts on extreme events
- Climate change can’t be solved without nature; biodiversity can’t be preserved without slowing climate change
- Cost of clean energy and renewables dropping
- Cities, states, & countries are taking action
- Businesses are responding and taking risk seriously
- Investment community is activated!
### World Economic Forum Global Risk Reports

Global risks ranked by severity over the long term (10 years)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
<td>Extreme weather</td>
<td>Climate action failure</td>
<td>Natural disasters</td>
<td>Biodiversity loss</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>Extreme weather</td>
<td>Climate action failure</td>
<td>Human environment damage</td>
<td>Infectious diseases</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>Climate action failure</td>
<td>Extreme weather</td>
<td>Biodiversity loss</td>
<td>Social cohesion erosion</td>
</tr>
<tr>
<td><strong>2023</strong></td>
<td>Failure to mitigate climate change</td>
<td>Failure of climate change adaptation</td>
<td>Natural disasters</td>
<td>Biodiversity loss</td>
</tr>
</tbody>
</table>

*Global risks ranked by severity over the long term (10 years)*

The 3 inter-dependent facets of sustainability

Source: J. Rockstrom
The world is responding…

Increased attention to nature-based solutions, equity, gender, youth, IPLCs, behavioral change, improved livelihoods, policy coherence…

Source: J. Rockstrom
Science doesn’t have all the answers!

- Behavior towards sustainability
- Erosion of social cohesion
- Environmental activism
- Polarization
- Youth influence
- Backlash on equity, diversity, & inclusion
- Emerging role of women,
  Indigenous peoples/local knowledge
Behavioral Change

- Many GEF projects assume behavioral changes, but this is often implicit.
- Projects are more likely to succeed if communities are deeply engaged from the beginning to define goals and outcomes.
- Changes must be rooted on social and gender values and norms.

“...I think you should be more explicit here in step two.”

Source: Google image search
Policy coherence

GEF is committed to “policy coherence” because it:

• creates synergies
• helps manage trade-offs
• avoids damaging behaviors
• ensures environmental benefits are not undermined

https://www.youtube.com/shorts/dKIrblnpLoo
Involvement of communities in decision making

Initial analysis suggested:
1. Focus is on land degradation
2. Natural resource management (NRM) pursued

With community involvement:
1. Scales to weigh sheep
2. Form farmer empowered co-operatives
3. Have access to microfinance for the co-operatives
4. Link co-operatives/sellers directly to buyers

Livestock market, Ethiopia. www.icarda.org
Knowledge management – adding it all up!

• Is more than information management

• Is part of a continuum from learning $\rightarrow$ uptake $\rightarrow$ impact

• Need a ‘learning culture’ and ‘systems thinking’
Great Bear Rainforest Agreements

• Established in 2006, Great Bear Rainforest Agreements first Project Finance for Permanence!

• Brings together First Nations of the North Pacific Coast, federal and provincial governments

• Led to conservation, employment, empowerment of youth, food security, and more
You are agents of change!

From macroeconomics to opera: Here’s the Young Global Leaders Class of 2023

Meet the YGL Class of 2023

20-21 April 2023

Key Takeaways from the Youth & the SDGs Online Consultation
Young People’s Proposals for the 2023 SDG Summit

United Nations Department of Economic and Social Development

Youth Innovation Challenge

[HLPF 2023 Side Event] Youth engagement for systemic transformation at the SDG-Summit: Implementing the Global Sustainable Development Report call to action

Water Solutions for Sustainable Development

The 2023 Youth Innovation Challenge, hosted by the Commission for Environmental Cooperation and the Government of Mexico, aims to promote innovative solutions that address and respond to critical issues related to water.

STAP
SCIENTIFIC AND TECHNICAL ADVISORY PANEL
An independent group of experts advising the Secretary-General for Global Development Facility
Thank you!