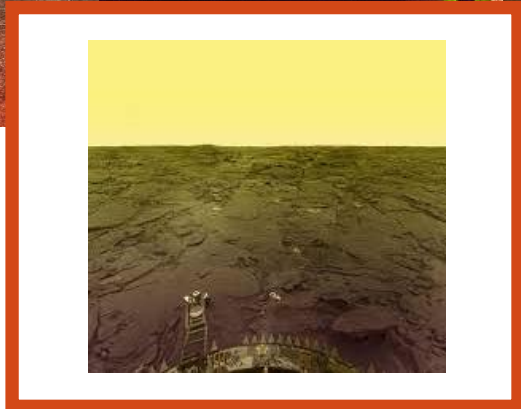
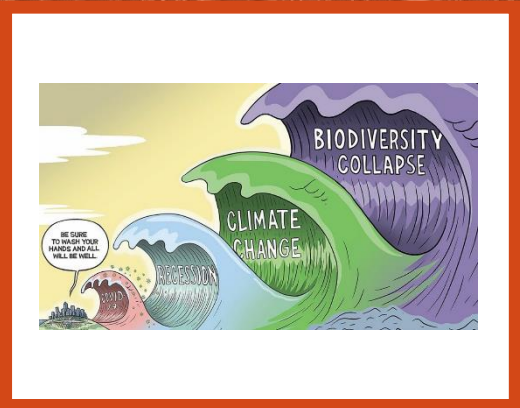
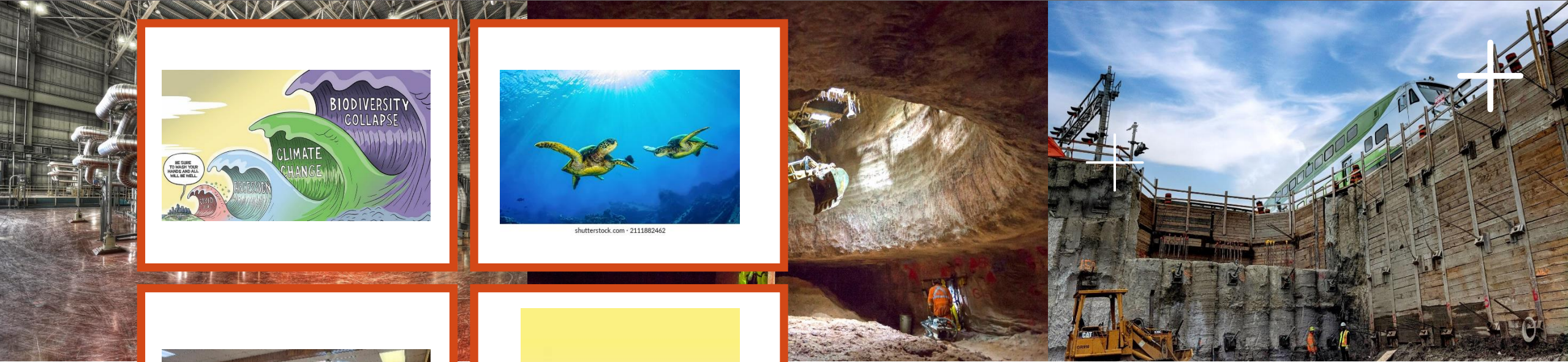


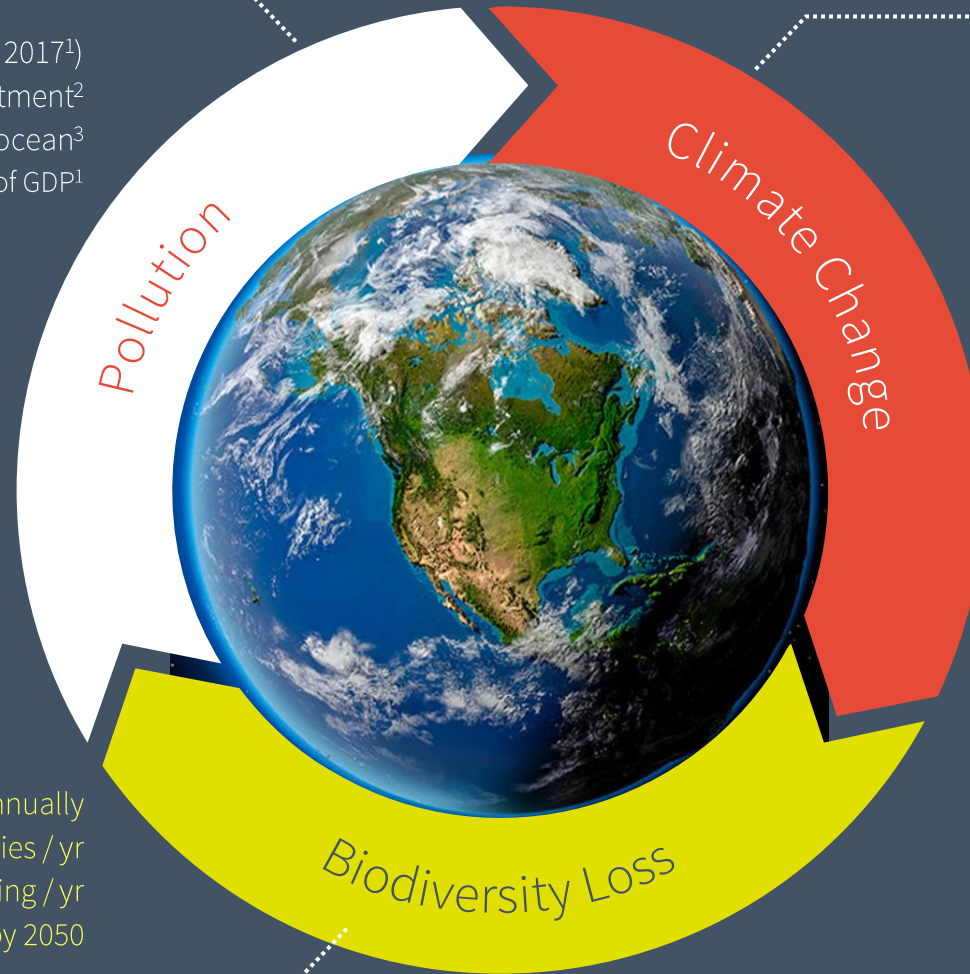
+ Transforming environmental governance to improve ESG Outcomes



International Association for Impact Assessment
Mellissa Winfield, Global Director Hatch Ltd
Kuching, Malaysia

Triple Planetary Threat

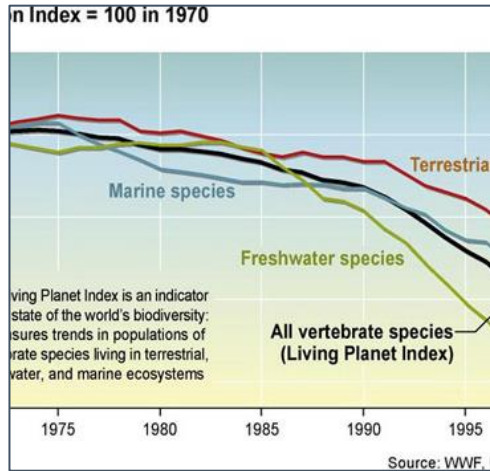
- 9M pollution related deaths (16% of global deaths in 2017¹)
 - ~80% of wastewater discharged with no treatment²
 - Est. 5.25 trillion pieces of plastic in the ocean³
- Economic losses due to pollution estimated at 1% of GDP¹



- 58 Gt of CO₂e emitted (2022)
- Canada has highest per capita rate of GHG emission – 3x's the global average
- \$165B in climate / weather related disasters in the USA – the third most costly year on record⁴

- 10M hectares of land deforested annually
 - \$10B – 23.5B illegal fisheries / yr
 - \$30B - \$100B illegal logging / yr
- Loss of ecosystem services: euro 14 trillion by 2050

Biodiversity Assessments

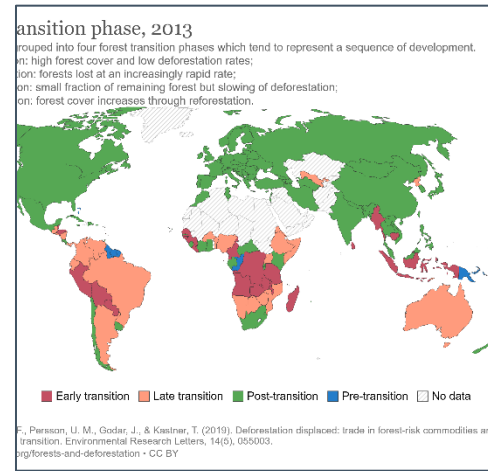


Species Extinction Rates

ESIAs under-estimate impacts

Mobility of wildlife populations and habitat use under-predicted

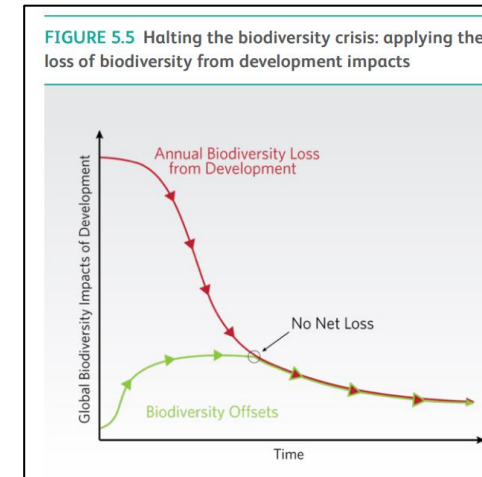
Multi-season / critical life history stage field baseline studies for specific species may not be undertaken



Habitat Loss

Loss of wildlife habitat / impacts evaluated as 'Not Significant'

Cumulative loss / impacts not meaningfully considered



Offsetting

Offsetting not always required

Offset habitat may not be of equal productivity value

time lag delays not considered

Pollution

Issues within ESIA's:

- Lack of baseline data
- Waste Discharges – Under predictions
- Inadequate monitoring of performance and mitigation
- Accidents and Malfunctions
- Scoping – e.g., shipping routes; supply chains not considered

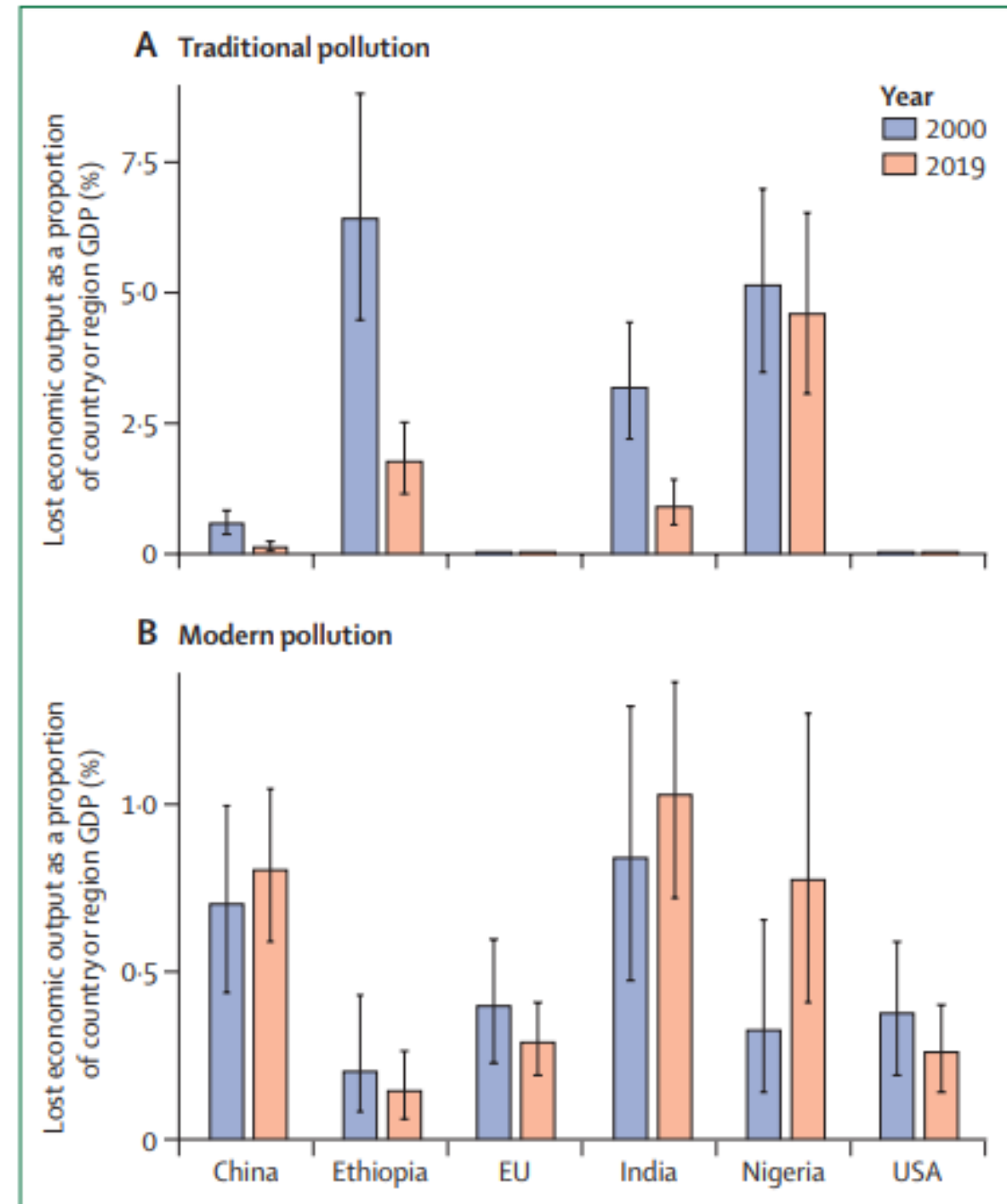


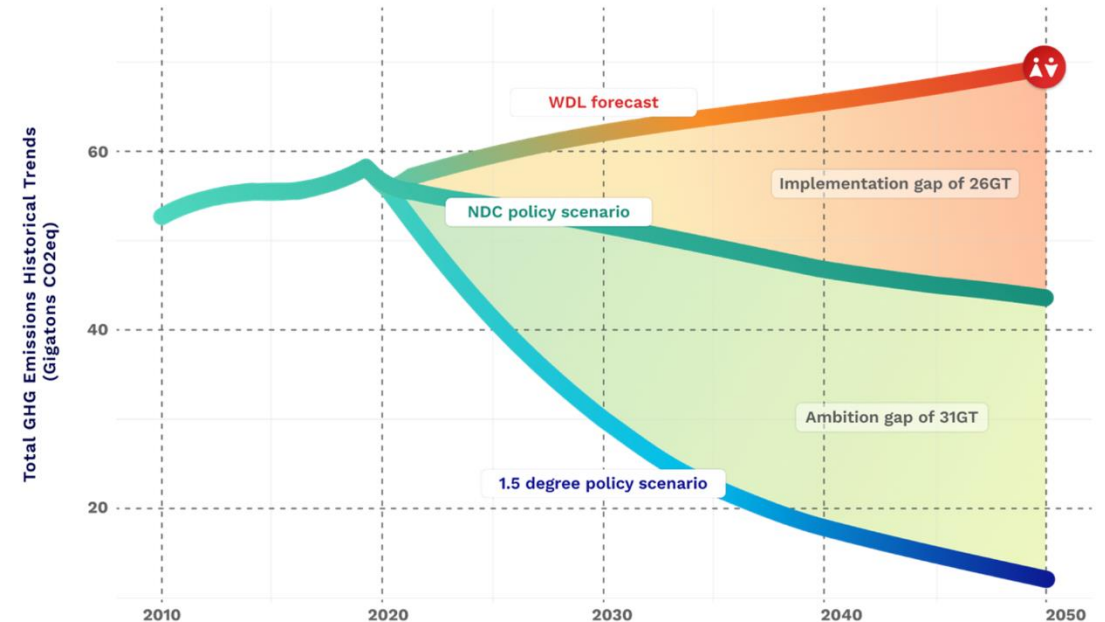
Figure 5: Lost economic output as a proportion of country GDP due to deaths

Climate Change: GHG Emissions

Issues within ESIA's:

- Focus on quantifying Scope 1 /2 emissions, with less emphasis on Scope 3
- Carbon capture does not offset full emission load

With no change, the implementation and ambition gaps will keep growing (Brookings, 2023)



Sustainable Development Paradigm

- Trade-offs: environment vs. social vs. economy
- ‘Justified in the circumstances’ - Socio-economic benefits used to justify significant environmental impacts

What happens when the socio-economic benefits don't materialize?

e.g., only 59% of the estimated 583 jobs predicted for 3 coal mine projects in BC from 1999 – 2019 actually materialized (Collard et al., 2023)

Are we focusing on the right priorities?

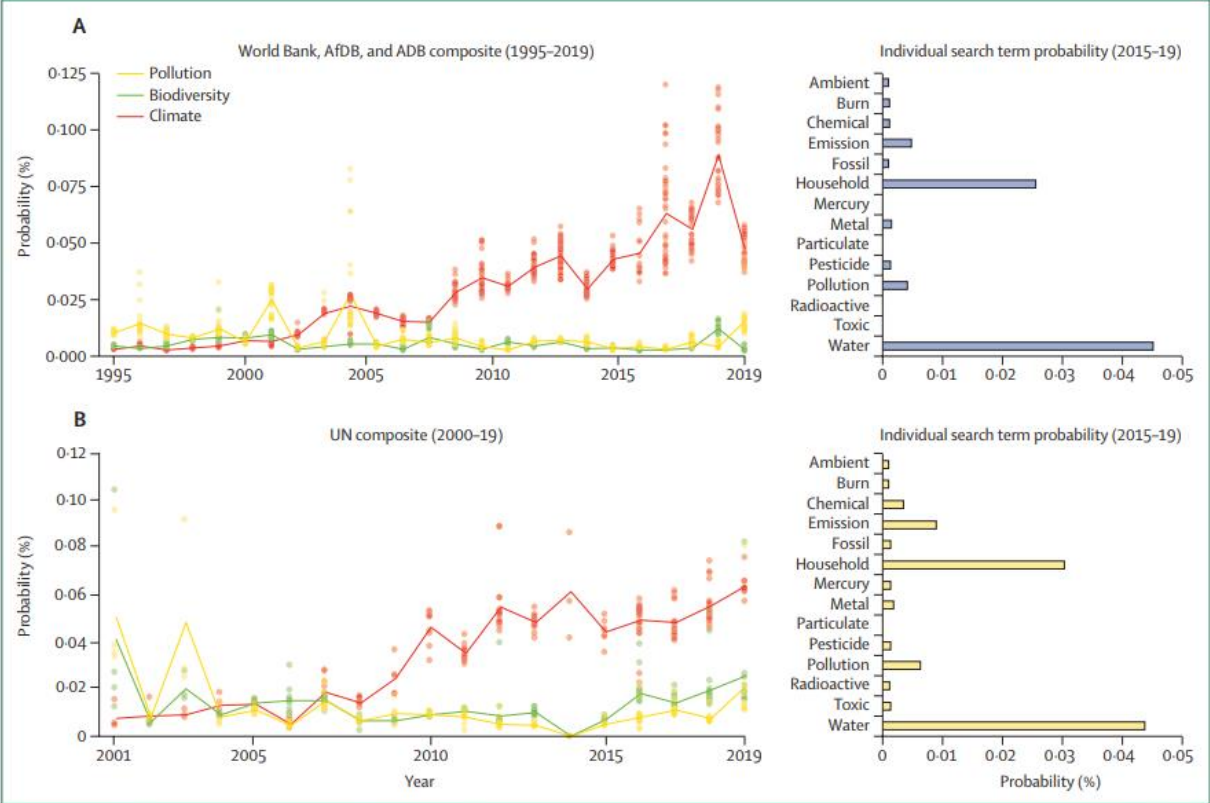
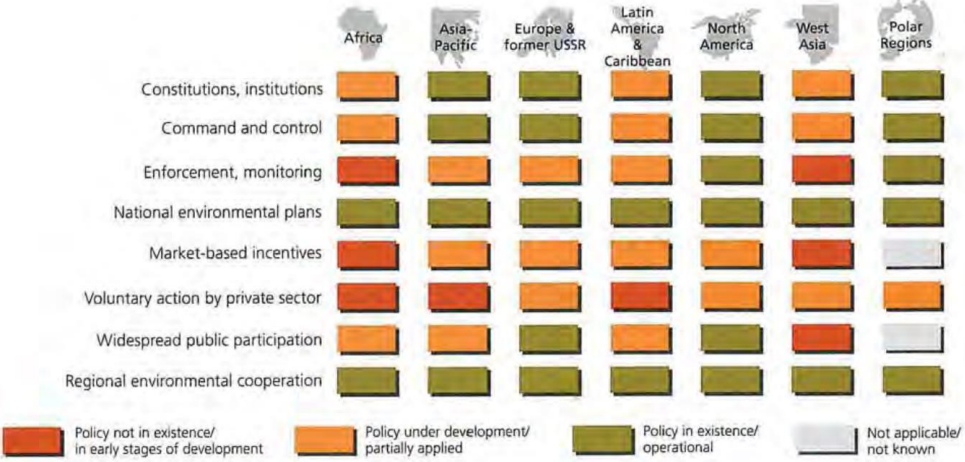


Figure 6: Probability of subject matter coverage of pollution, biodiversity, and climate change (composite terms and key phrases) in country framework documents

Environmental Regional Policy Responses



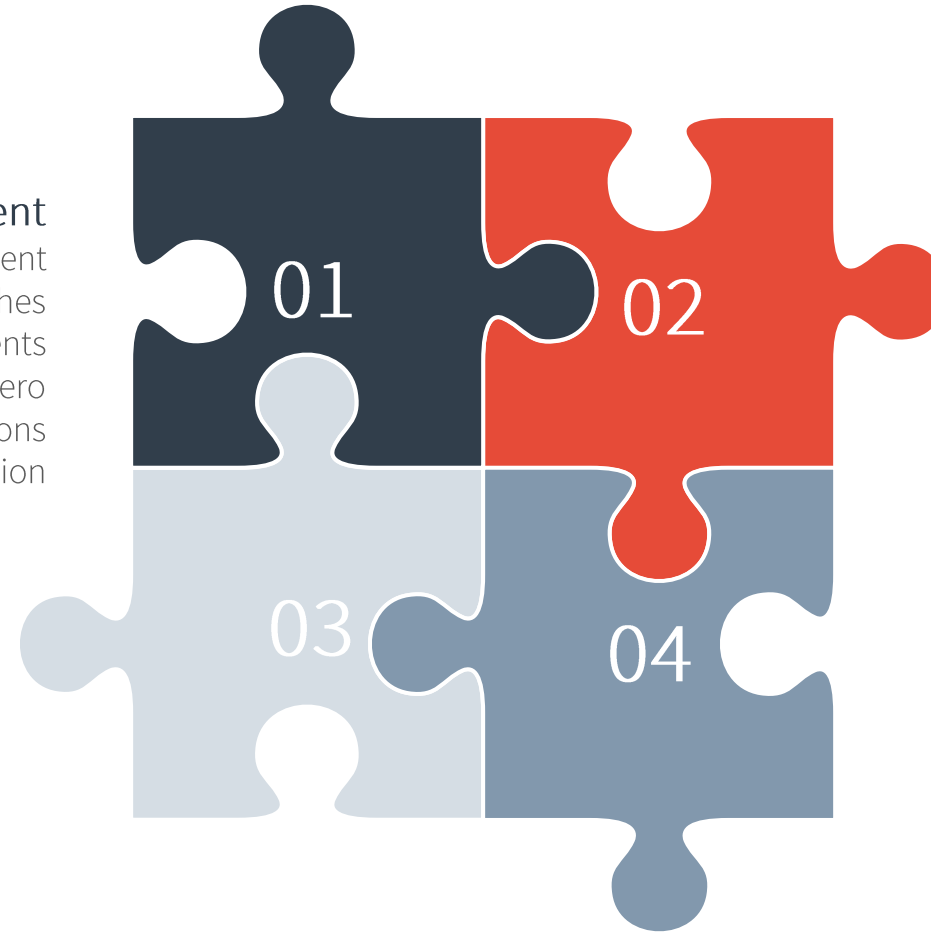
Transformational Progress – every piece counts

Impact Assessment

- Enhanced use of quantitative assessment approaches
 - Technology investments
- Improved mitigation performance (net-zero habitat loss; GHG emissions)
 - Implementation

Reform

- Centralized authority: IEPA
- Affirmative cross-sector policies
- Harmonized / consistent standards
 - Political will
 - Leadership



Participatory Democracy

- Process legitimacy
- Multi-stakeholder / multi-scale
- Global to regional linkages and networks
- Voluntary initiatives

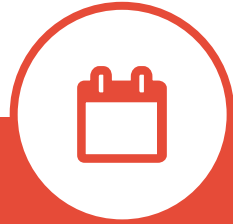
Funding

- Appropriately scaled
- Committed long-term investment of the annual US \$3-6 trillion needed to tackle planetary threats
- Increased use of market mechanisms
- Green financing (Tax credits, subsidies, bonds etc)

A Possible Solution?



Establish International
Environmental Protection
Agency



Fund IEPA



Harmonize Standards



Enforce Member Agreements

Statute with International
Authority

Member State Consent
Agreements

Democratic decision-
making structure

Statutory Budget Allocation
from every Member State

Polluter pays / Cost Recovery

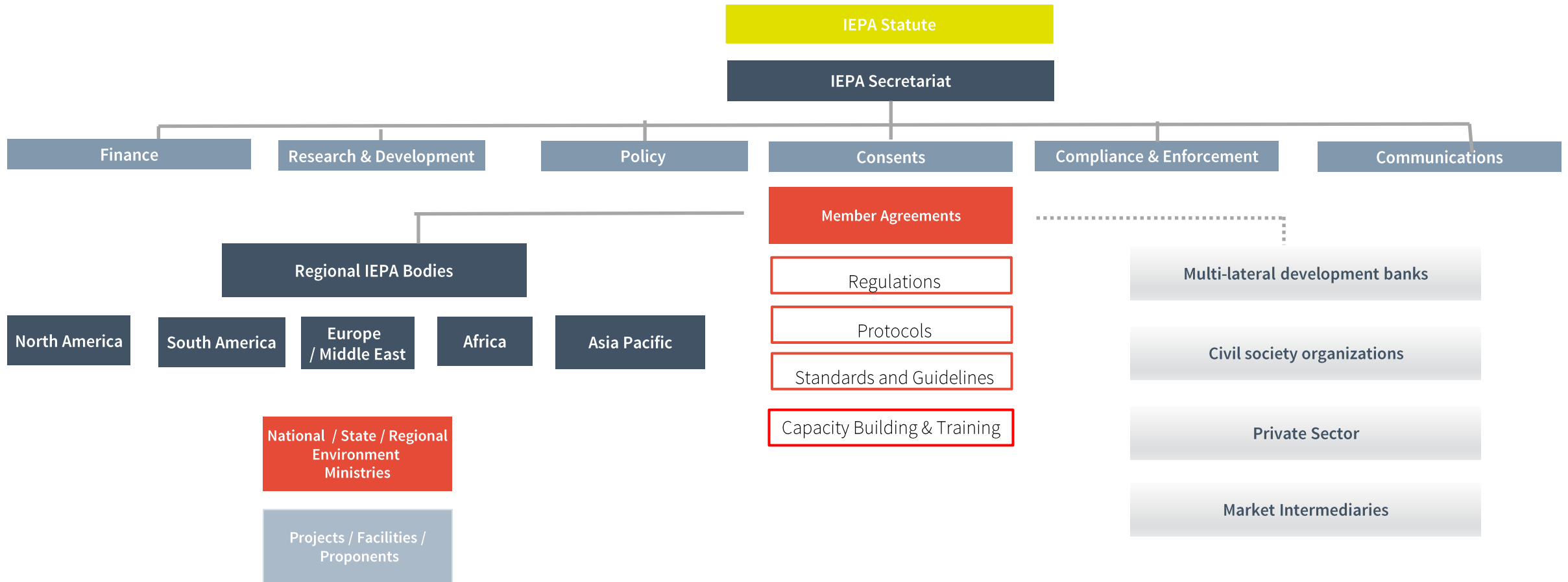
Protective requirements to
reduce offshoring /
competitive advantages

Provide certainty of
requirements

Motivate technological
innovation

Inspections / audits
Follow-up Monitoring
Offsetting req'ts
Restoration
Polluter fines & penalties
Environmental crimes
Continuous improvement

IEPA Structure



Let's continue the conversation!

Post questions and comments in the IAIA23 app.

Melissa Winfield

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