Report to the 53nd Meeting of the GEF Council

STAP
SCIENTIFIC AND TECHNICAL ADVISORY PANEL
An independent group of scientists that advises the Global Environment Facility

Red Fox moving North into the range of the Arctic Fox

STAP Panel Members

Michael Stocking
Senior Advisor to Chair

Rosina Bierbaum
Chair, USA

Thomas Lovejoy
Senior Advisor to Chair

Blake Ratner
International Waters
USA

Brian Child
Biodiversity
South Africa

Ricardo Barra
Chemicals & Waste
Chile

Annette Cowie
Land Degradation
Australia

Ferenc Toth
Climate Change Adaptation
Hungary

Ralph Sims
Climate Change Mitigation
New Zealand

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Presentation Outline

- Integration
- Assembly Papers: Circular Economy - Food, and Plastics
- Other STAP Assembly Papers
- Work Program Screening

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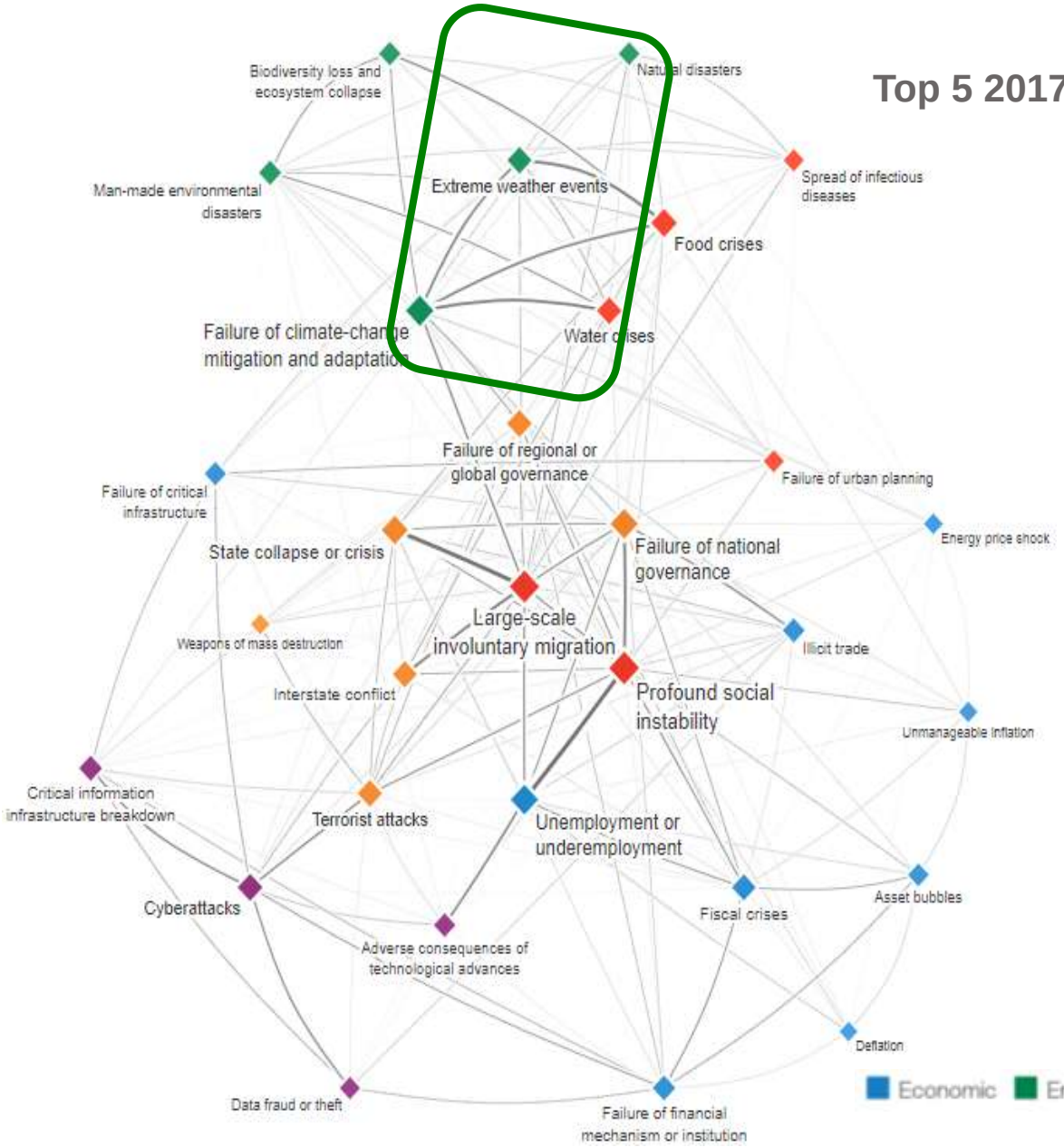
Integration in the GEF

- 1992: GEF established to support biodiversity, climate change, and desertification conventions
- 2000: OP 12 combined LD, BD, IW and CC
- 2002: multifocal area portfolio initiated
- 2014: Integrated Approach Pilot programs
- 2015: SDGs

Top 5 2017 Global Risks in Terms of Impact



Weapons of mass destruction

Extreme weather events

Water crises

Major natural disasters

Failure of climate-change mitigation and adaptation

Economic | Environmental | Geopolitical | Societal | Technological

Benefits of System Integration

- Understanding complexity
- Addressing multiple issues simultaneously
- Assessing feasibility of multiple goals
- Identifying policies and strategies
- Maximizing gains and minimizing costs

Source: https://www.thegef.org/council-meeting-documents/draft-stap-working-paper-why-scientific-community-moving-toward

OPS6: Examples of focal area integration

- Mainstreaming biodiversity associated with better outcomes & evaluations better ratings
- International waters - a catalyst for integration emphasizing learning & knowledge
- Land degradation delivers GEBs in multiple FAs, and socio-economic benefits

Source: http://www.gefieo.org/evaluations/ops6-gef-changing-environmental-finance-landscape

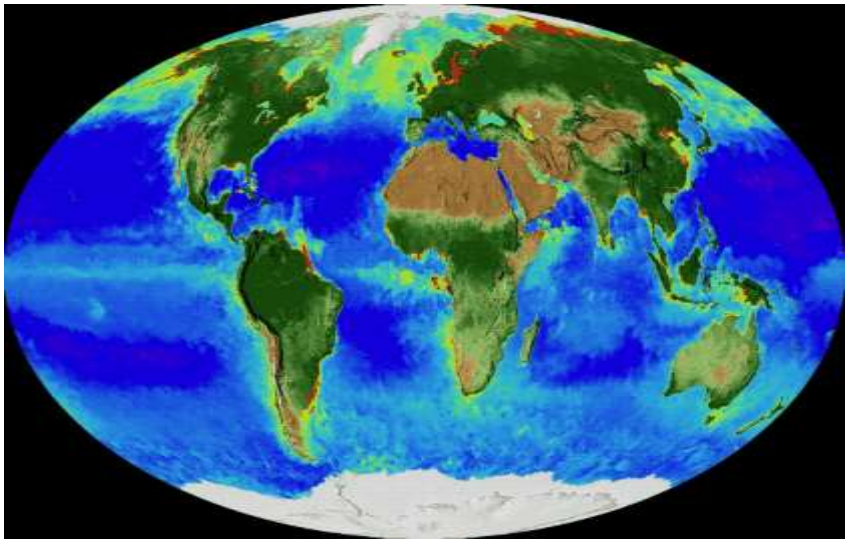
Essential characteristics of good MFA projects

- The project objective would not be achievable by addressing a single focal area.
- There are linkages and drivers of environmental degradation common to several focal areas.
- Integration maximizes global environmental benefits and minimizes trade-offs.
- A theory of change allows robust monitoring and assessment of outputs and specific indicators.

Source: https://www.thegef.org/council-meeting-documents/draft-stap-working-paper-why-scientific-community-moving-toward

The GEF has two unique assets

1. Scale
2. Access to Governments



Credits: NASA

Integration: IAPs

Good Growth Partnership: Cultivating Sustainability in the Global Supply Chain

Sustainable Cities – Harnessing Local Action for Global Commons

Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa

6 key elements for successful integration

1. Apply systems thinking
2. Articulate a theory of change
3. Engage stakeholders
4. Assess resilience
5. Devise adaptive implementation pathways
6. Develop good quality KM and learning

Source: https://www.thegef.org/council-meeting-documents/draft-stap-working-paper-why-scientific-community-moving-toward

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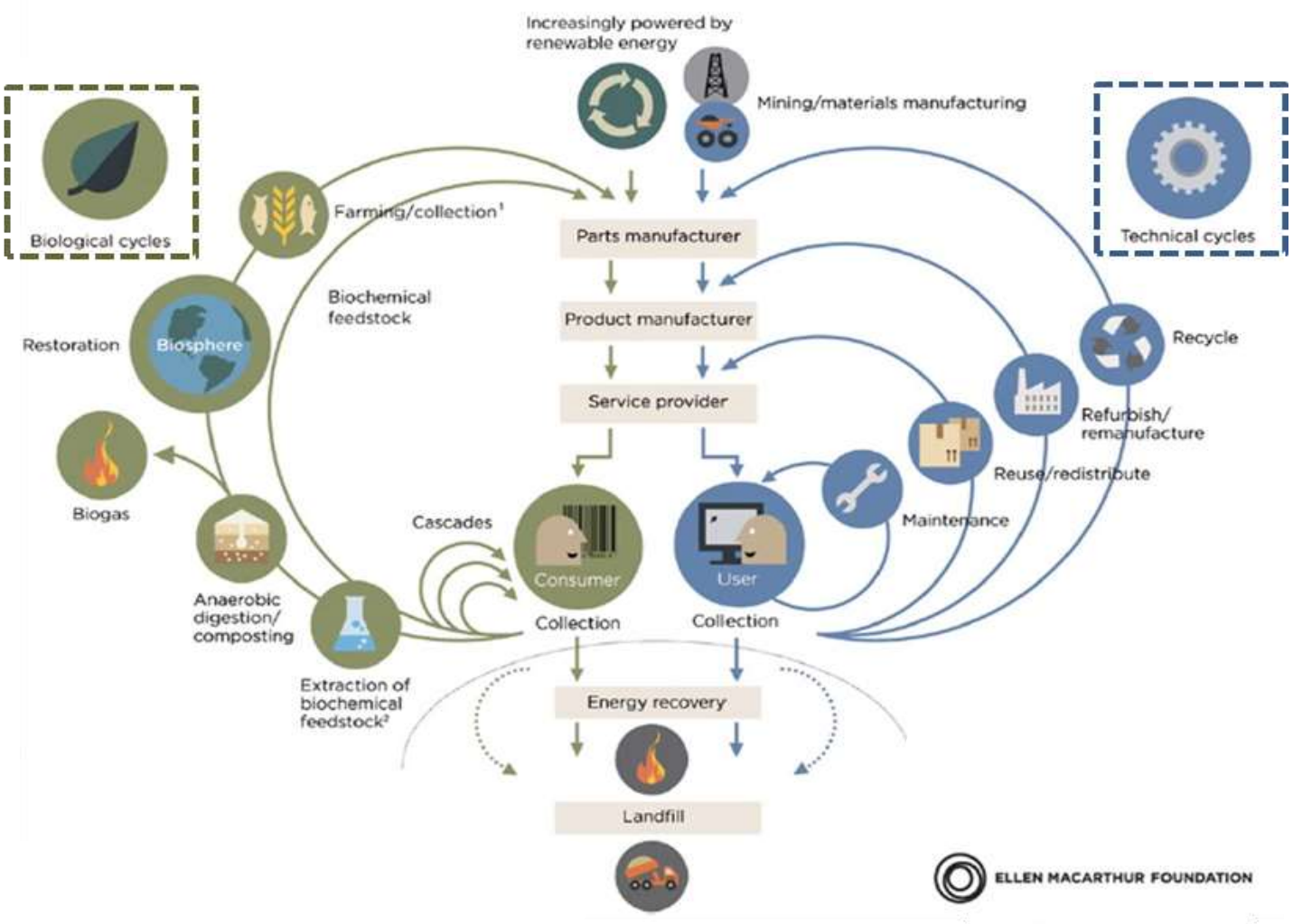
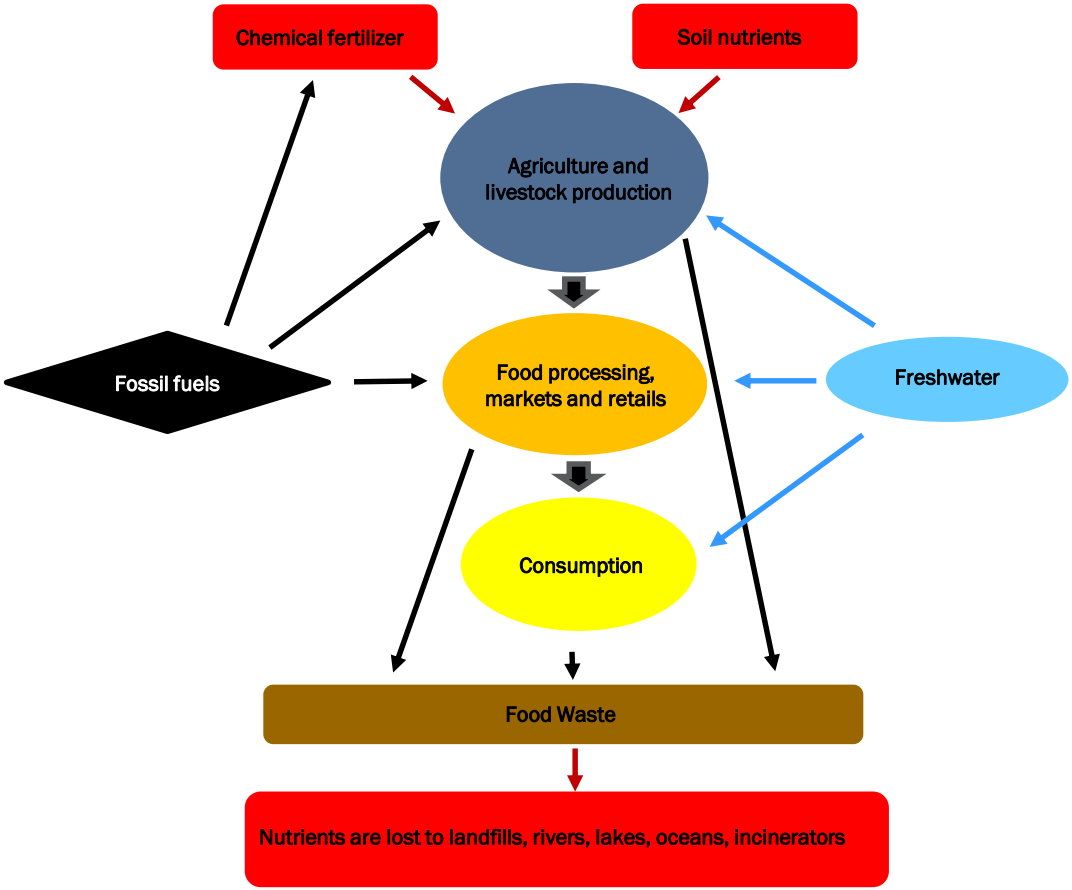
Circular Economy



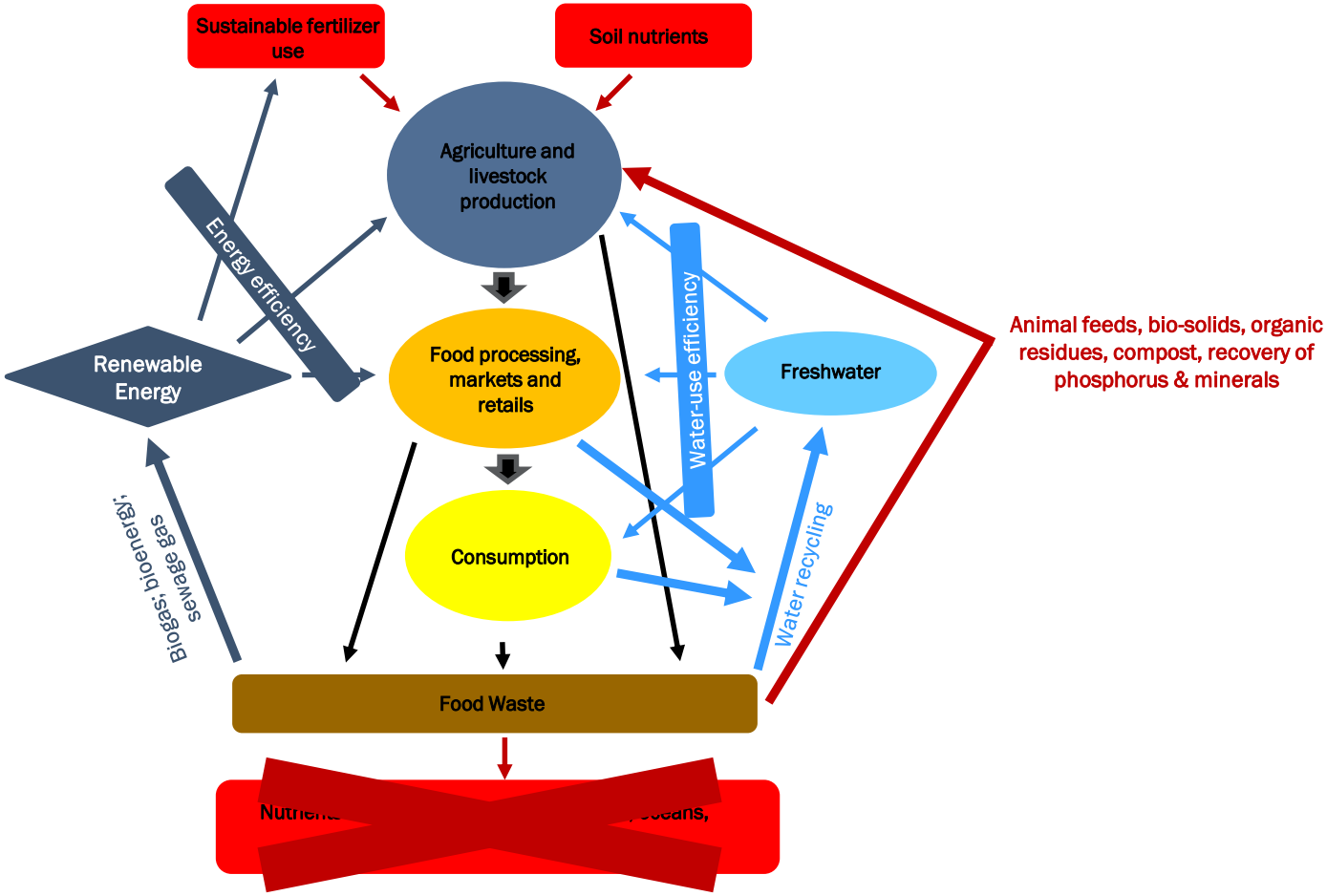
Agri-food Systems



What is the issue?

- 1/3 of total end-use energy
- 1/4 of total GHG emissions
- 2/3 of terrestrial biodiversity loss
- 1/3 of land degradation
- depletion of 2/3 of commercial fish stocks
- over-exploitation of 1/5 of the world's aquifers

Agri-food Systems – more sustainable



What is the solution?

- Closing the nutrient cycle
- Reducing competition for productive land
- Reducing chemical fertilizers
- Reducing freshwater use
- Maintaining sustainable agro-ecological systems
- Deploying low-carbon energy, waste for energy
- Producing food within the urban landscape

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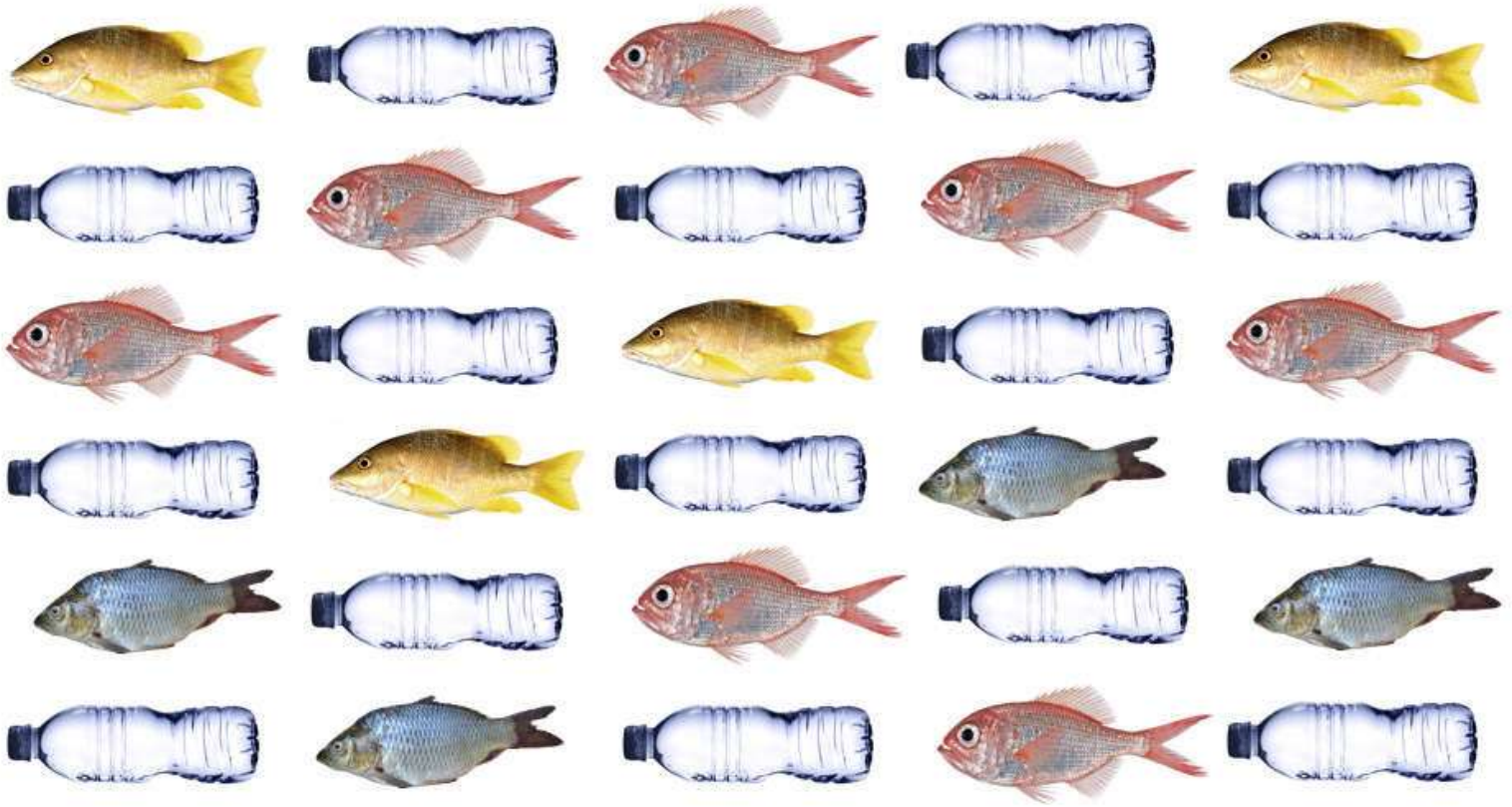
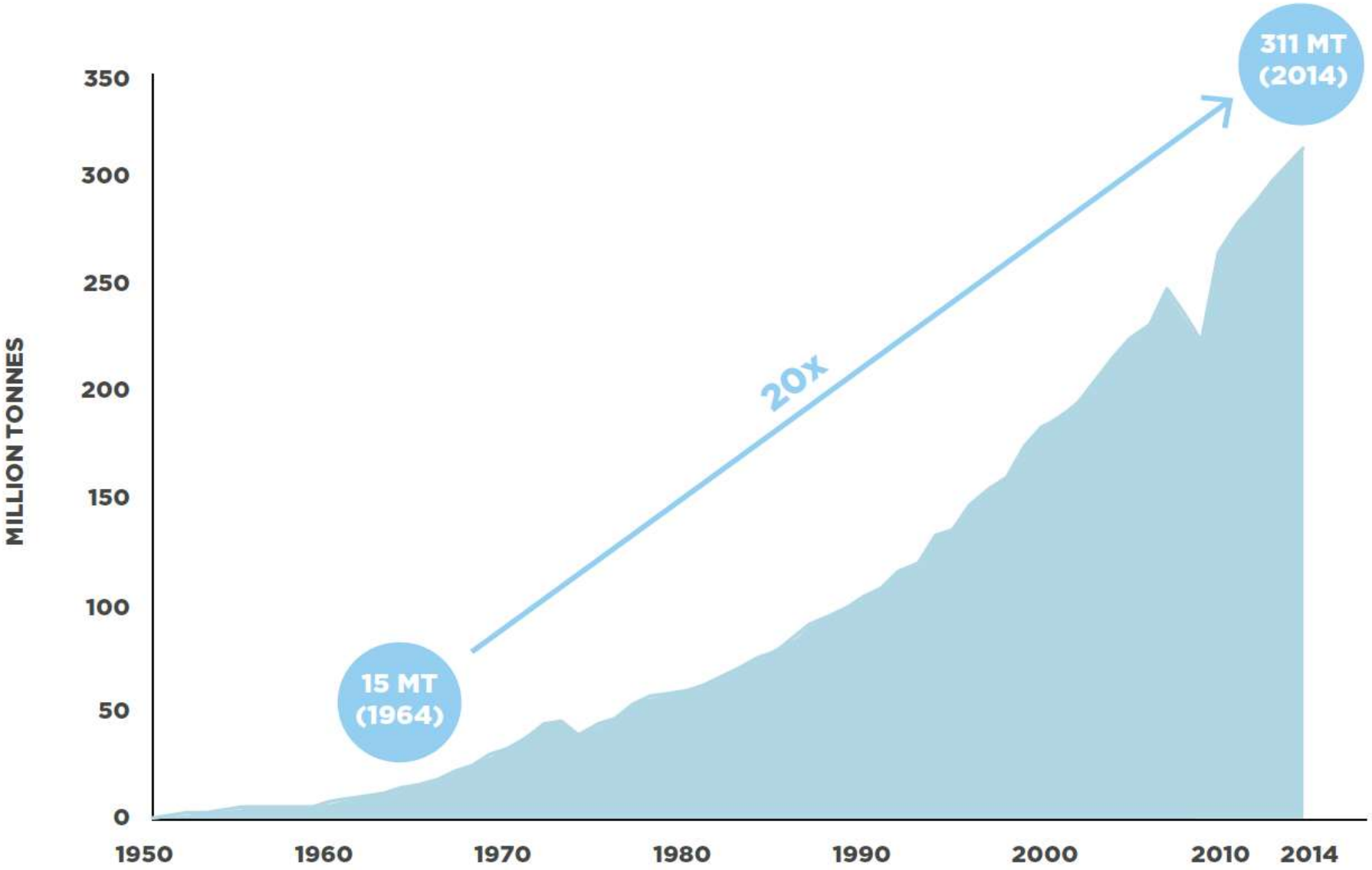
Plastics





Source: World Economic Forum: http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf

What is the issue?

- Plastic production increased 20x 1964 -2015
- Expected to double in 20 yrs; quadruple 2050
- Some contain toxic chemicals (POPs)
- Stay in environment for up to 500 yrs
- End up in the food chain
- Projected to use 1/5 of oil by 2050

Photo credit: Justin Hofman

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What is the solution?

Design for longevity, reusability, waste prevention

- Encourage production from biodegradable materials
- Use waste as a resource
- Recover for reintroduction back to the economy
- Provide incentives for recycling and reuse
- Support innovative research
- Create a supportive policy environment

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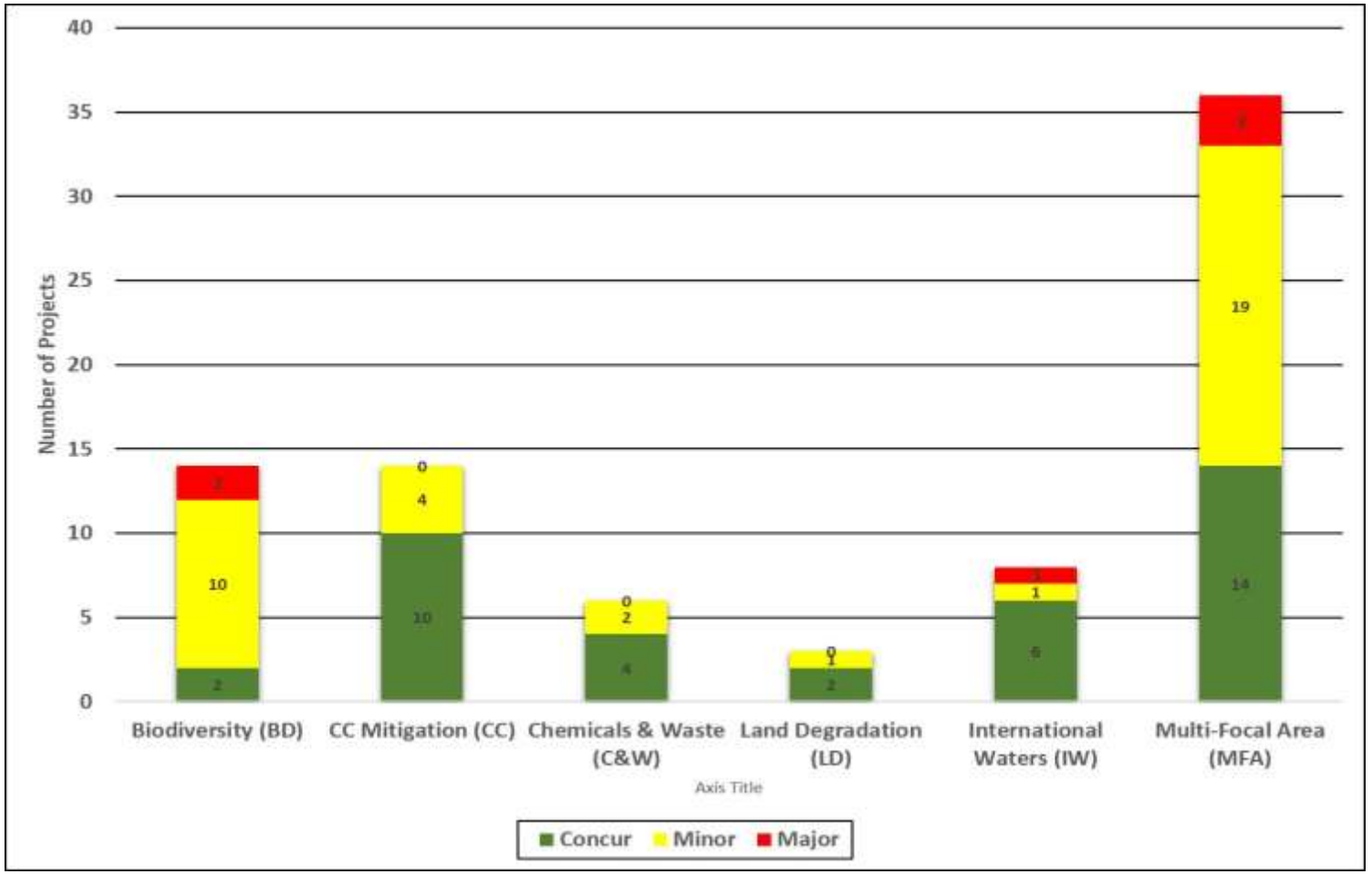
2018 STAP Assembly Papers

Five other papers for GEF Assembly:

1. Environmental Security
2. Novel Entities
3. Innovation
4. Local Commons/Global Benefits
5. Key interactions between MEAs and SDGs
6. Science of integrated approaches
7. Knowledge Management
8. Circular Economy: Food and Plastics

Observations on the GEF Work Program



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Observations from Work Program

- 82 projects screened representing about $500m.
- 6 majors (7%), slightly lower % than usual.
- **Good projects**: clearly described, with a good theory of change; demonstrate strong understanding of the social-ecological system; build on strong baselines; well-designed interventions; engage all stakeholders; and capture learning.
- **Some projects would benefit from**: a clearer logic; assumptions substantiated; clearly defined strategies to address key drivers; resilience and adaptive management.

Questions?