



# Scientific and Technical Advisory Panel

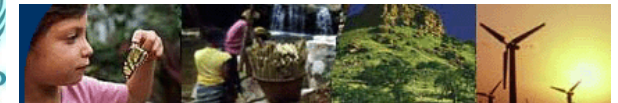
## Report to 40<sup>th</sup> Meeting of the GEF Council

**Thomas E. Lovejoy**  
Chair, GEF-STAP

Scientific and Technical Advisory Panel



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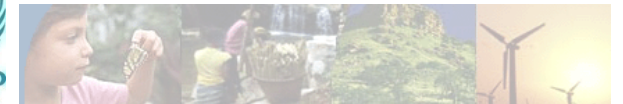
# Outline of Report

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- Update on **Operational Advice** - Project Cycle
- Recent **Advisory Products** and current work
- **Upcoming Initiatives** - STAP Work Program, & issues under consideration
- **Looking forward**

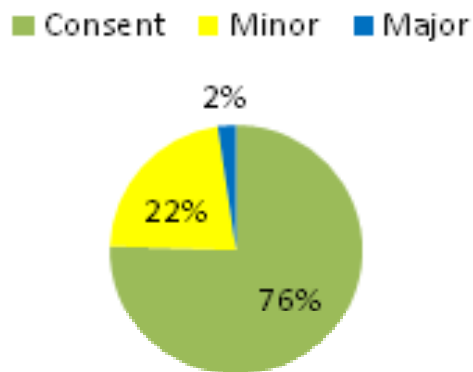


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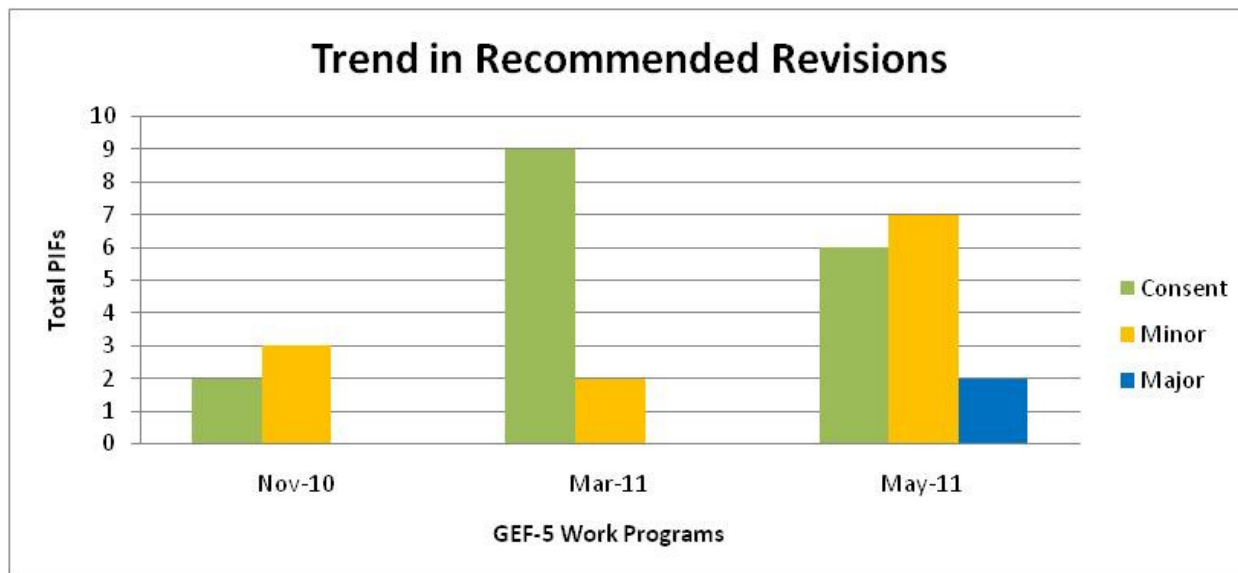
# Ongoing monitoring of scientific quality at entry

GEF 4 - Total



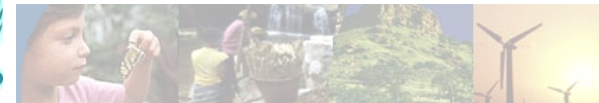
Total projects - 339

GEF 5 Work Programs to date



## Observation

- PIFs (& PFDs) are often conceptual, and generally do not include sufficient information to always fully assess scientific/technical rationale or GEBs



# Programmatic Approach

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- STAP supports ongoing GEF Secretariat efforts to increase efficiencies, reduce transaction costs



## Great Green Wall Initiative

- 1st PFD from qualified agency reviewed by Panel
- STAP provided detailed comments on the science – however conceptual nature of PFD creates challenges for comprehensive scientific review

### Recommendation:

Ensure comprehensive data collection, learning structures, and knowledge generation frameworks are embedded across GGWI country & regional programs.



# Recent STAP Initiatives and Advisory Products

Manual for  
Calculating Greenhouse Gas Benefits  
of Global Environment Facility  
Transportation Projects



Prepared by the  
Institute for Transportation  
and Development Policy

For the  
Scientific and Technical Advisory Panel  
of the Global Environment Facility

Scientific and Technical Advisory Panel

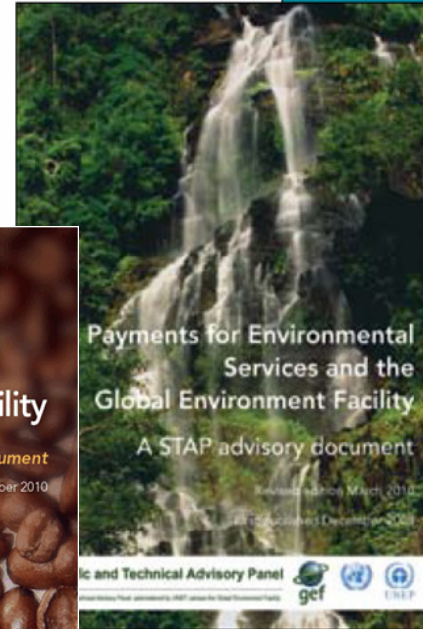
The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility



Environmental  
Certification  
and the Global  
Environment Facility

A STAP advisory document  
September 2010

Scientific and Technical Advisory Panel  
Advisory Panel, administered by UNEP, advises the Global Environment Facility



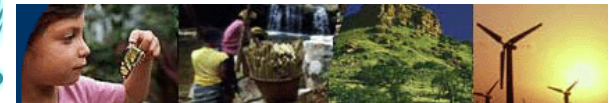
Benefits and Trade-Offs Between  
Energy Conservation and Releases of  
Unintentionally Produced Persistent  
Organic Pollutants  
A STAP advisory document



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# POPs Disposal Technology

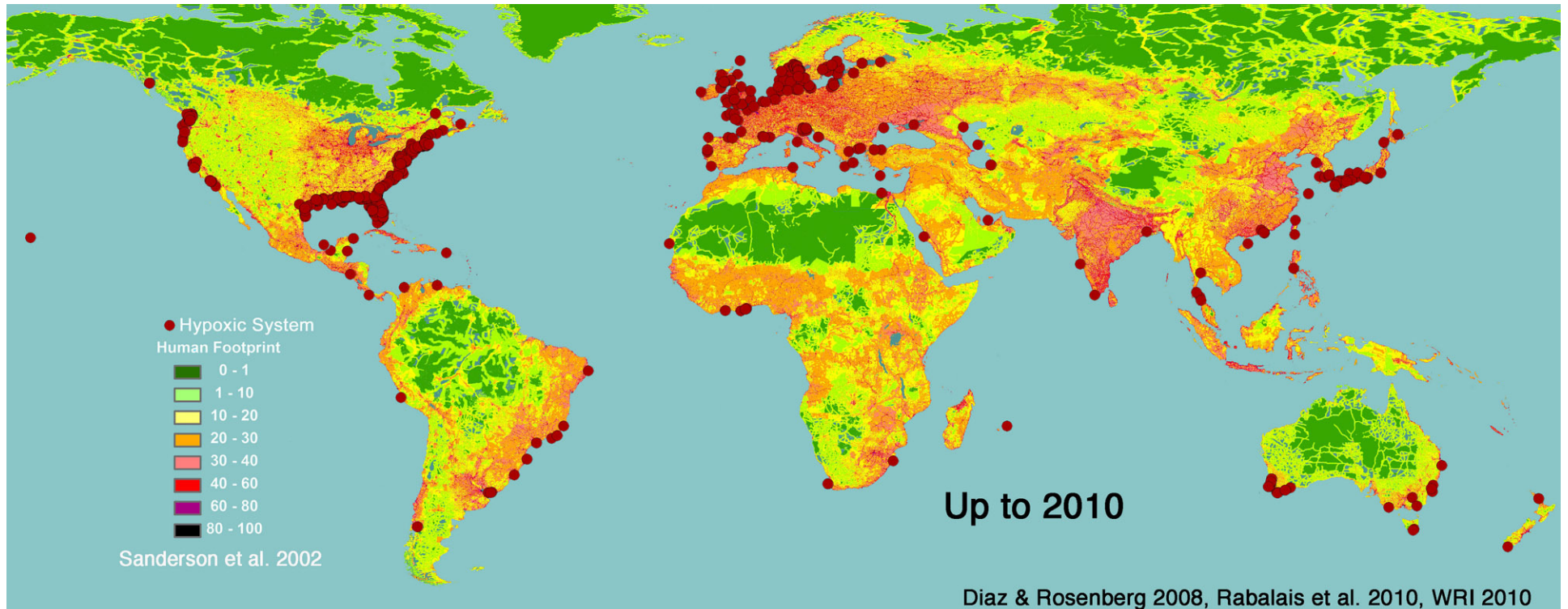
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- More than \$200 million spent in GEF-4 on stockpiles and waste disposal
- Guidance to developing countries on the selection and implementation of appropriate disposal technology
- Promotes common standards and approaches across countries
- Recommends upstream, comprehensive management for POPs – in addition to appropriate disposal options



# Hypoxia in coastal marine ecosystems

- Hypoxic zones
  - Doubling worldwide every 10 yrs, now >500
  - Uncertain status in some areas
  - Primary driver is coastal eutrophication (nutrient overloading)
  - Causes major fisheries, biodiversity and livelihoods impacts
- STAP recommends that GEF supports more nutrient reduction initiatives
  - Building on its present leadership and experience, e.g., Danube and Black Sea



# Marine Debris – emerging global issue



Intl. Marine Debris Conference

- Both national & “global commons” issue
- **Multiple impacts:** marine biodiversity & human health, reservoirs & vectors for POPs and other chemicals, impacts to marine transportation and tourism

- CBD, UNEP, STAP exploring global significance & scope for action







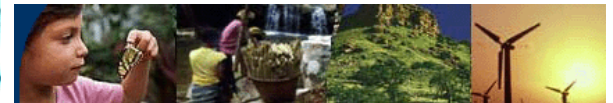
# Upcoming Initiatives

STAP FY 12 Work Program &  
Issues Under Consideration

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# Emerging Chemicals Management

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- Addressing chemical management needs of DC/CEITs – and SAICM priorities
- Challenges of long-range trans-boundary impacts
- Real and potential impacts to human health & ecosystems from increasing exposure
- Prioritizing issues regionally & globally, including ideas for possible GEF response



# Enhancing Climate Resilience

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## STAP will . . .

- Review current adaptation strategies amongst development agencies
- Assess project-based adaptation practices to reduce vulnerability to climate risks
- Prepare climate risk screening & assessment tools as necessary



# Targeted Research

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- 39 TR projects since GEF 1 (barely 1% of all GEF projects)
- Current Policy dates from 1997 – review & rationalization needed

## Is there a need for research in the GEF?

- There are still significant unknowns – We don't necessarily have all the answers
- Research can improve project design – and better define the impact of GEF investments
- Input from Council, Agencies, GEF Secretariat, and outside organizations will be sought in the review

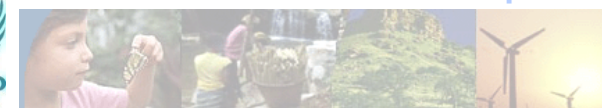




- **Objective** – advancing trans-disciplinary research and transformative partnerships
- Science and solutions for Earth systems
- Contribution to Rio +20 from intl. scientific community
- Joint STAP/GEF Secretariat sessions planned

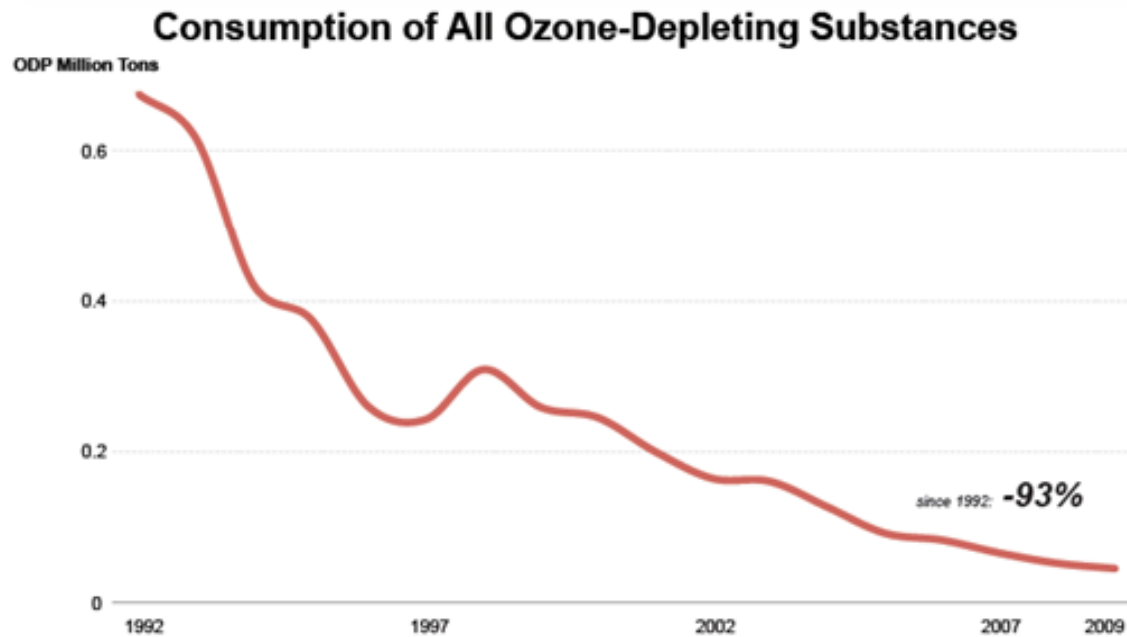


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## Looking back - there have been notable successes



Source: UNEP GEO Data Portal. Courtesy: UNEP

Consumption of all ozone depleting substances has fallen dramatically

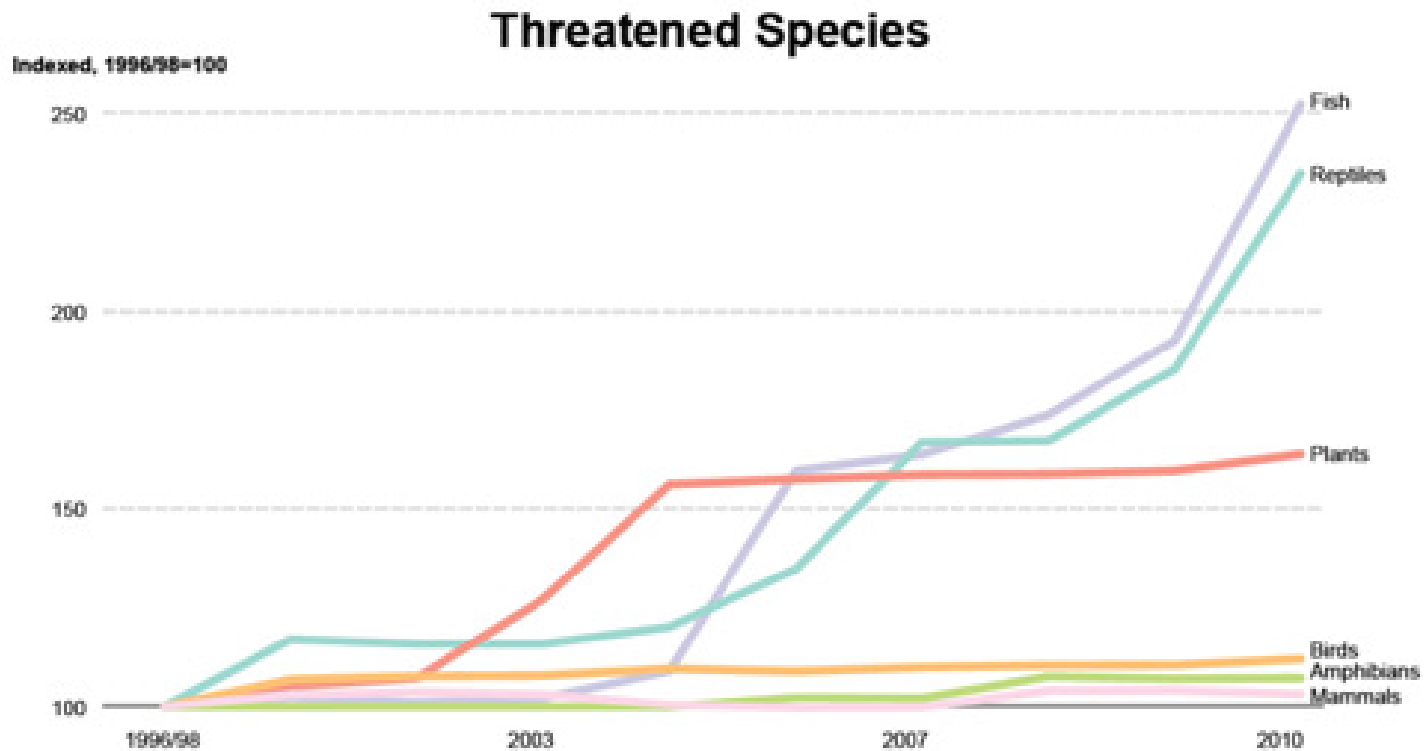
# 20 years ago we did not know . . .

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- About ocean acidification
- That human society would quickly become primarily urban
- That 1 language in the world would be going extinct every 2 weeks (Source: Terralingua)
- That summer Arctic sea ice will likely be gone within 4 years (Source: Arctic Council)
- That solid waste and other debris would accumulate in the world's oceans (*marine debris*)
- Or the significance of endocrine disrupting chemicals



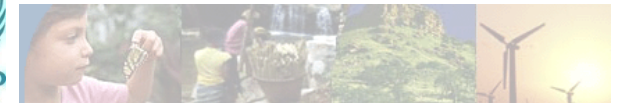
# Rates of change are accelerating



Source: IUCN Red List (2010). Courtesy: UNEP



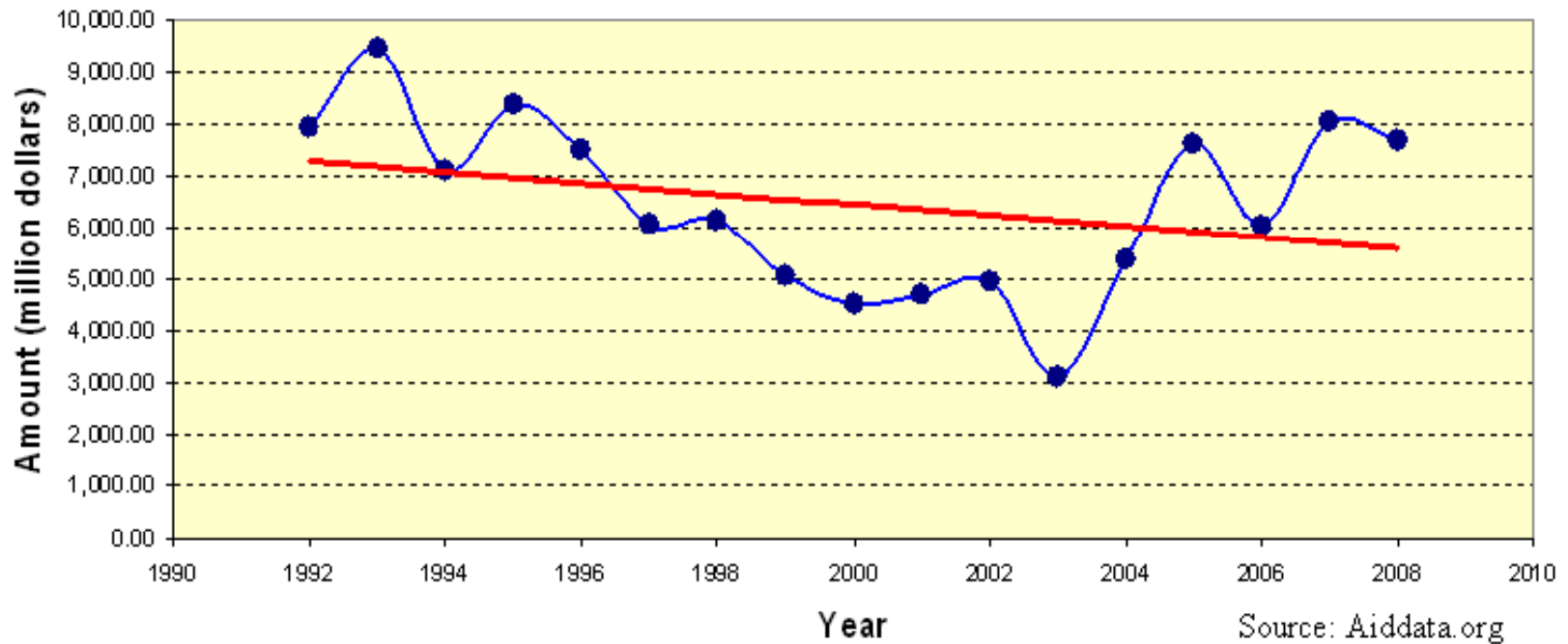
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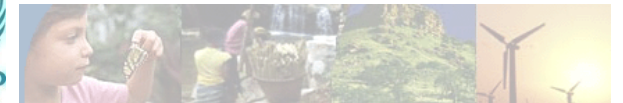


# Are resources declining?

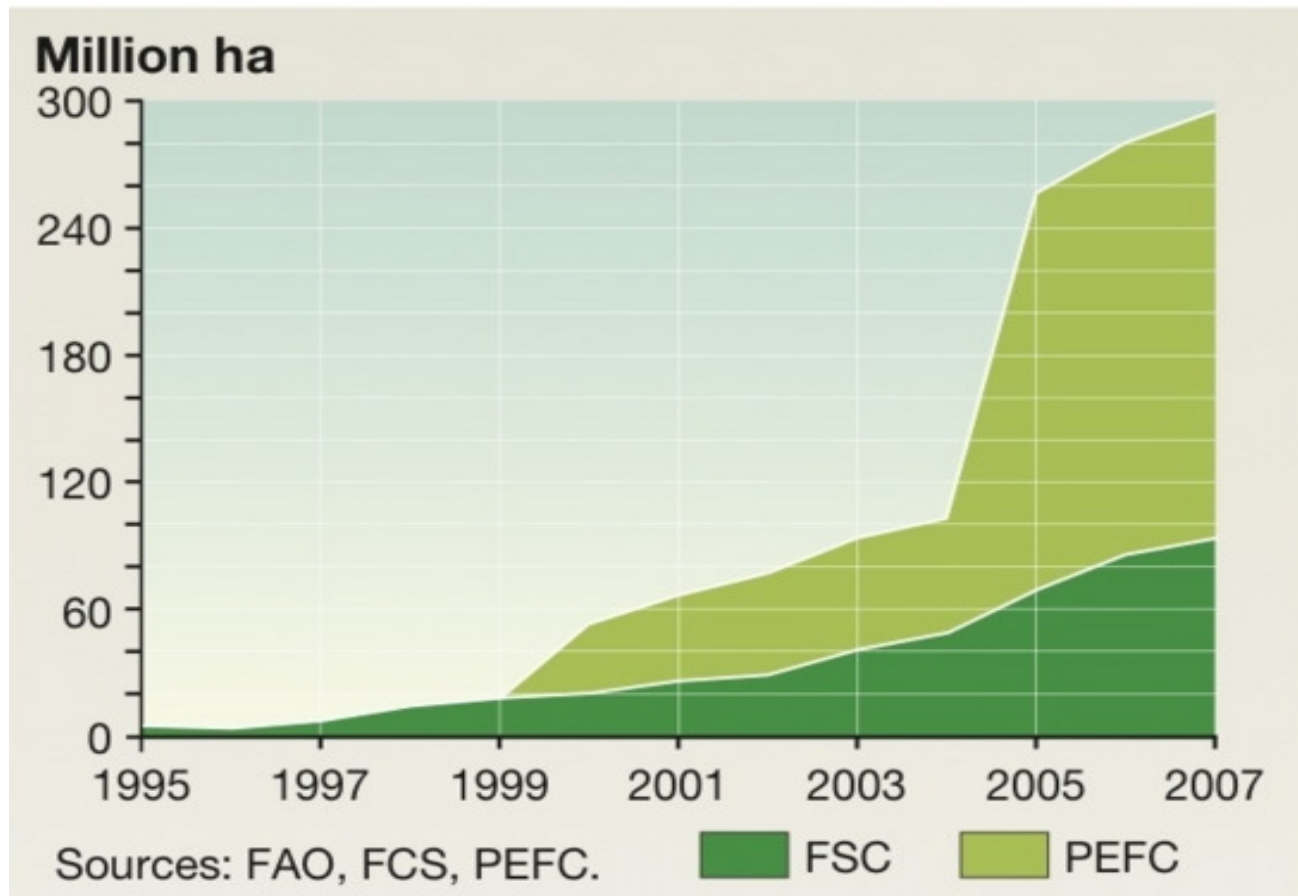
Bilateral and Multilateral Environmental Aid from 1992 to 2008



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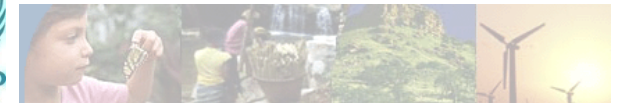
# Some of that change has been positive



Forest certification has gone from 0% to 10% of all production forest



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# Looking ahead . . .

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**Ensuring food and water security for 10 billion (by 2100)**

**Sea level rise consistently underestimated**

**Enhancing the resilience of our growing cities to climate change**

**Shifting the global economy to a sustainable path – and lifting people out of poverty**



# Implications for the GEF?

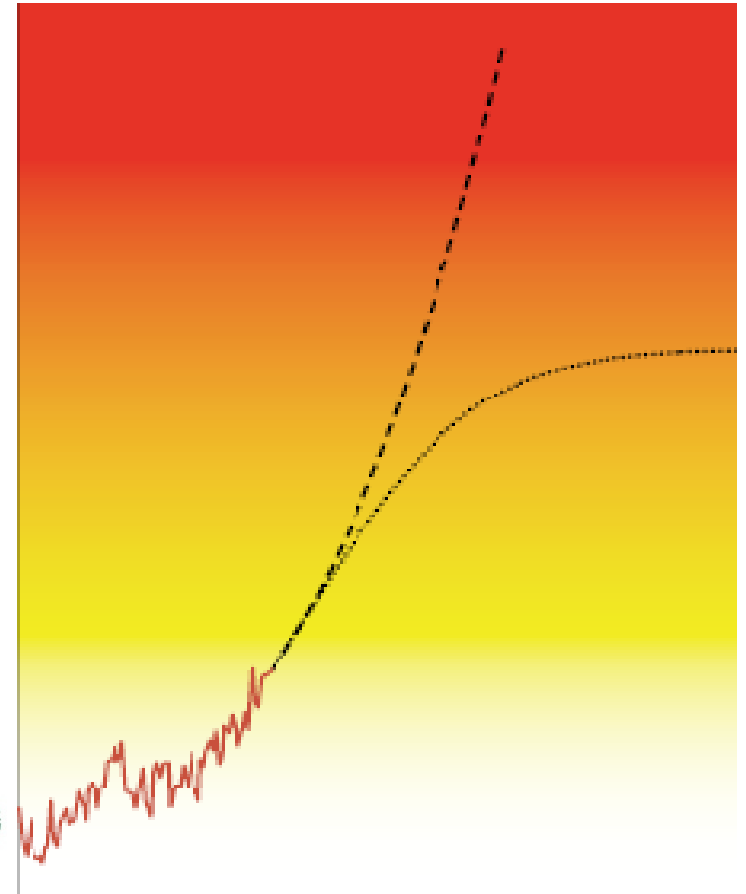
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**How do we know we are having an impact?**

**Learn by doing -  
Experimental project design**

**We will need to do more within  
an increasingly complex world . . .**

**. . . and ensure that our efforts  
are transformational**



# Questions and comments welcomed

Thomas E. Lovejoy

Chair

GEF Scientific and Technical Advisory Panel

[www.unep.org/stap](http://www.unep.org/stap)

Upcoming STAP regular session: October 13-14, Washington

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