



# The GEF Looking Forward



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**Global Environment Facility**

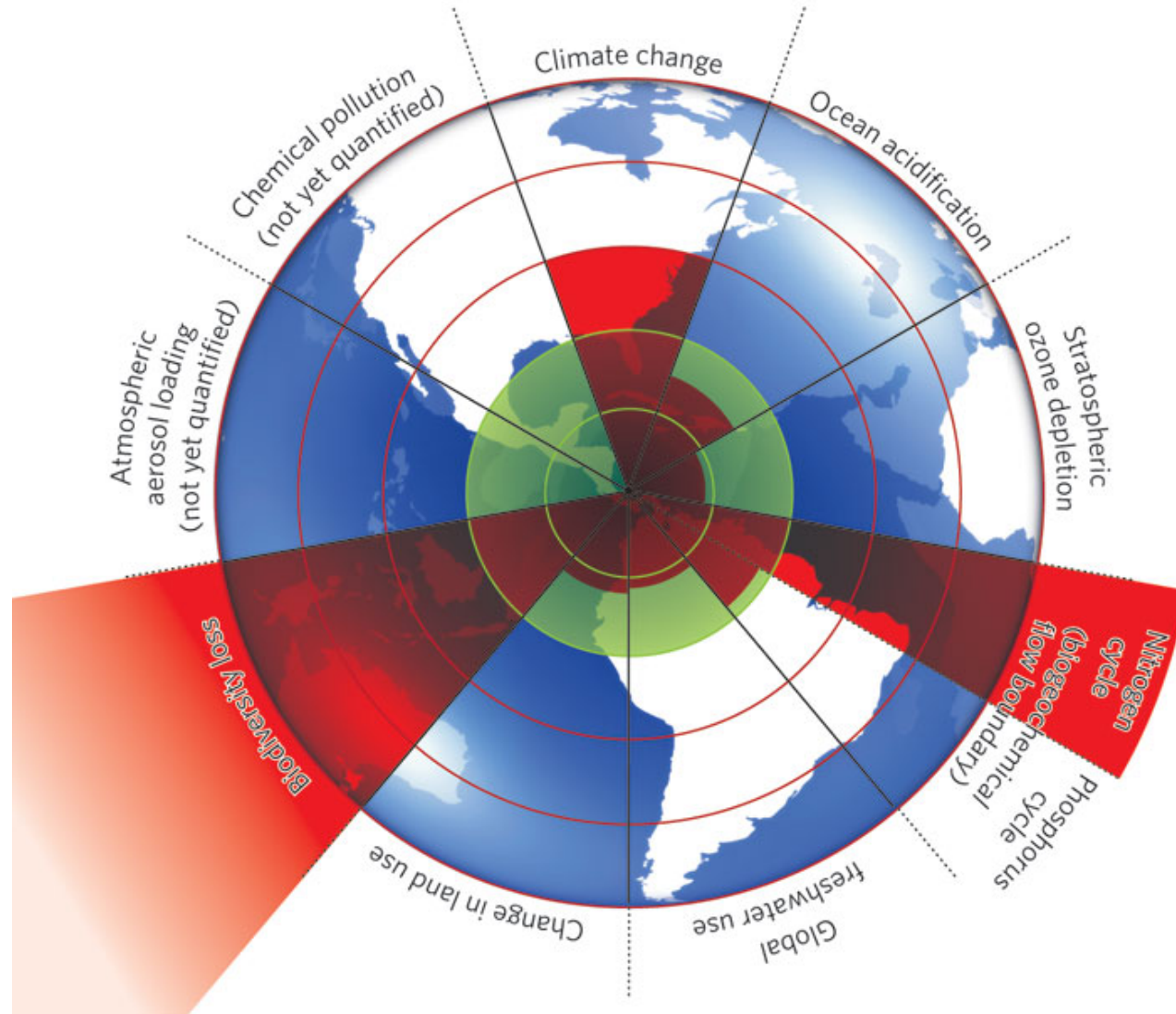
“Managing the Planet” Seminar  
May 20, 2013  
Washington DC



# Outline of Presentation

1. Big picture: Why is the Global Environment in crisis?
2. What is the GEF and how are we helping?
3. Looking ahead: How can we do better?

# Transgressing the Safe Operating Space



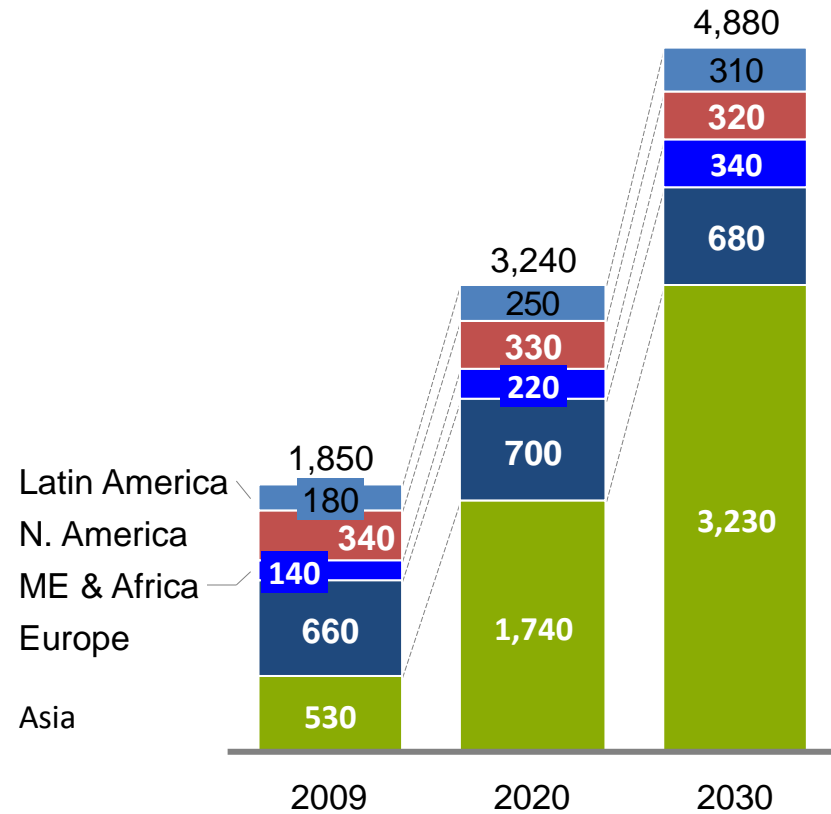
# Welcome to the Anthropocene



# An additional 3 billion people will join the global middle class and an additional 1 billion to be living in cities in the next two decades...

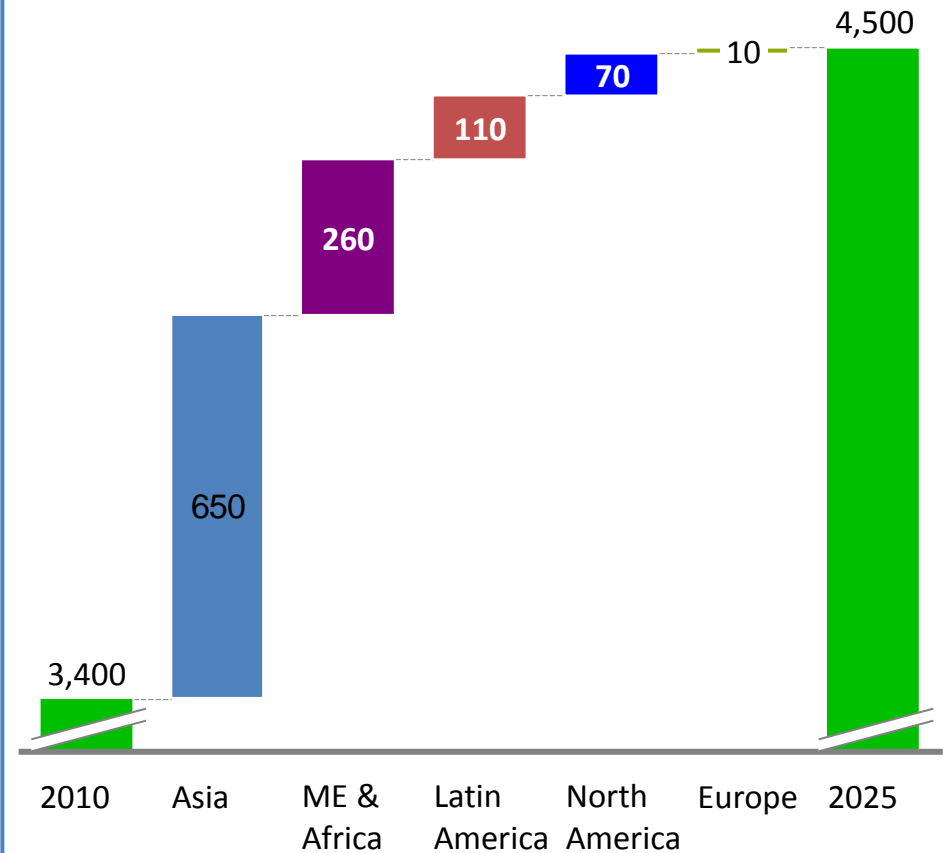
90% of the new global middle class<sup>1</sup> by 2030 will be in Asia...

Millions of people, in the global middle class



...with over a billion new urban citizens by 2025, mostly in Asia and Africa

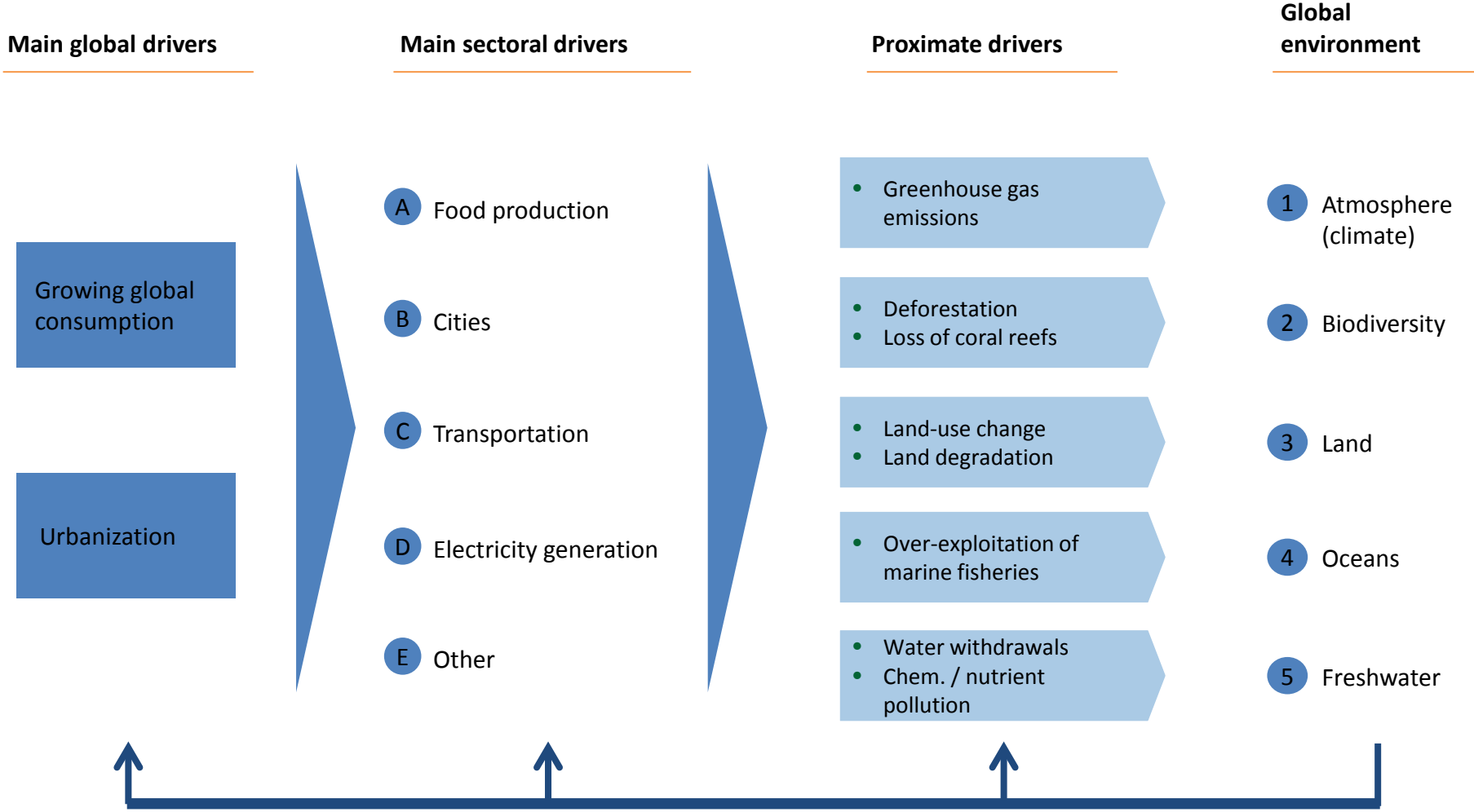
Millions of people, living in cities



<sup>1</sup> Based on daily consumption per capita ranging from \$10 to \$100 (in purchasing power parity terms)

Source: OECD, 'The Emerging Middle Class in Developing Countries,' 2010; McKinsey, 'Continuing Urbanization and the Rise of Megacities,' 2010

# Global consumption is affecting the environment through key sectoral drivers, reflecting increasing food, energy, and resource needs



The global environmental commons have upstream feedback effects on the drivers





# Countdown for the Global Environment

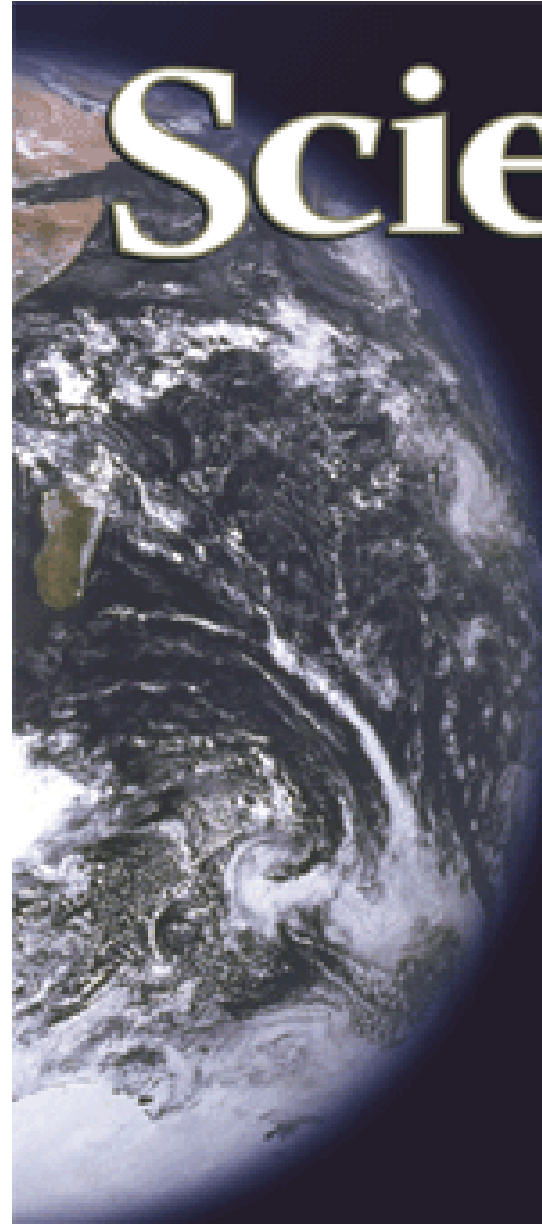




# Science

12 December 2003

Vol. 302 No. 5652  
Pages 1845-2016 \$10



TRAGEDY  
OF THE  
COMMONS?



AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



# The Global Environment Facility

*Born in the Spirit of the Earth Summit in Rio 1992....*

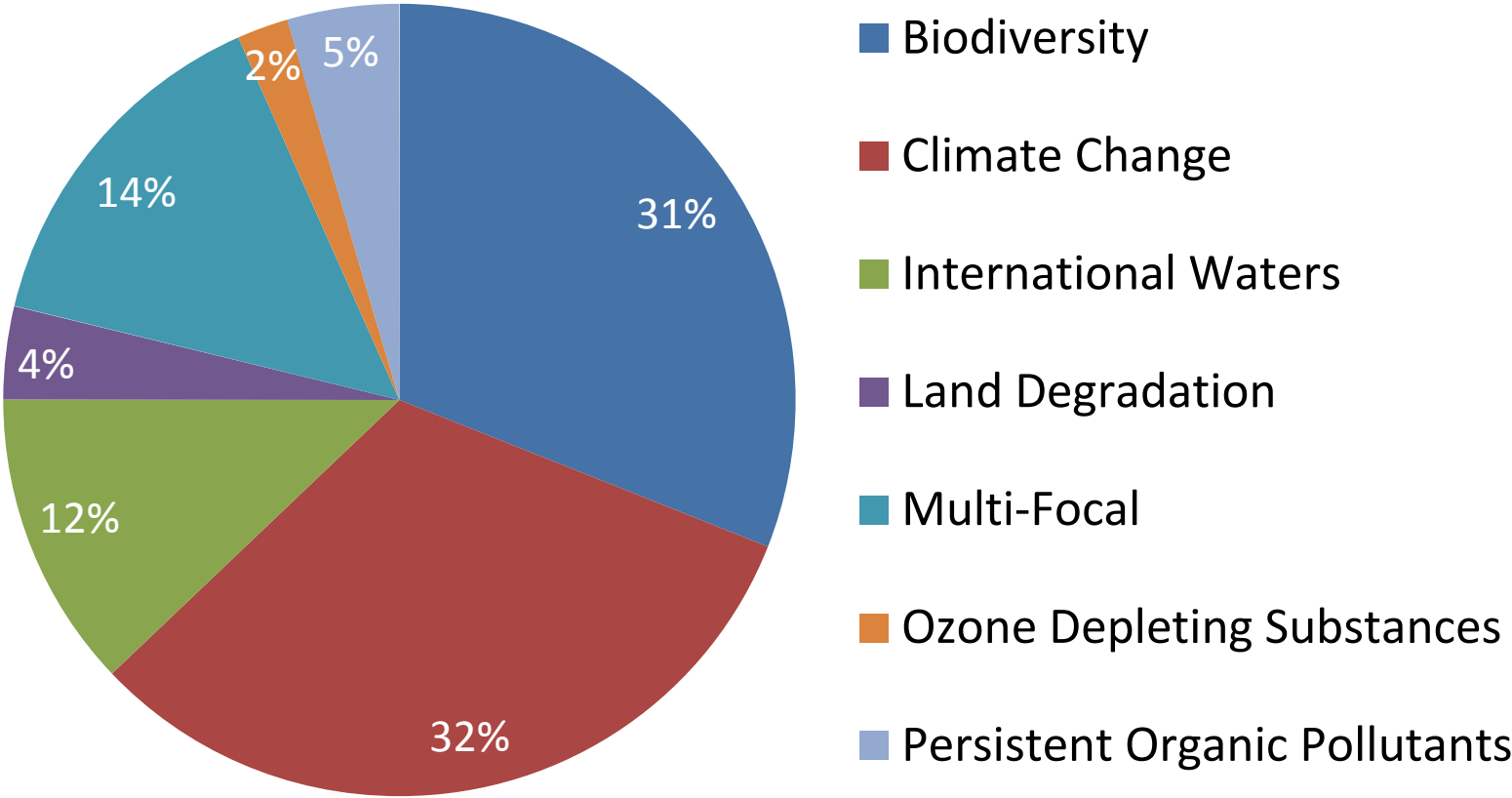
*Unites 183 countries*



# The Global Environment Facility (GEF)

- The financial mechanism of the “Rio” multilateral environmental agreements
- The largest public funder worldwide of projects aiming to generate global environmental benefits
- USD 11.5 billion allocated
- USD 57 billion in co-financing
- Over 3,215 projects
- GEF SGP: Over 16,030 small grants to CSOs, totaling USD 653.2 million

# GEF Funding by Environmental Focal Area



# Invest in green infrastructure

## Amazon Region Protected Areas Phase 1

### Safeguarding Amazon's biodiversity

\$30M of GEF grants to create and strengthen protected areas between 2002 and 2008

*Cofinancing: 1.7x*



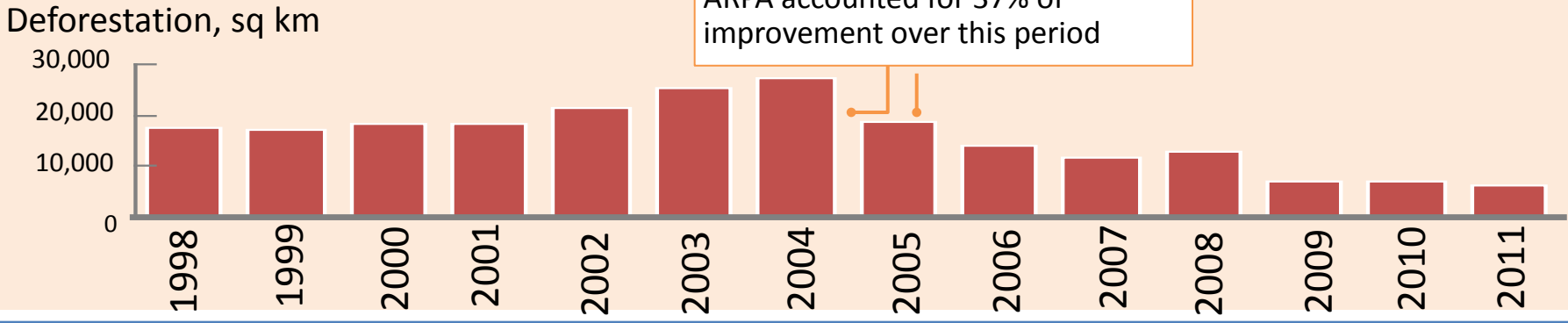
*Worked with major national and international NGOs*



### Catalytic impact

- Intervention linked with **~40% of Brazilian Amazon's total reduction in deforestation** between '04 and '06
- ARPA reserves are more than **double the size of the US National Park System**

### Annual deforestation in Brazilian Amazon



Source: Soares-Filho et al, "Role of Brazilian Amazon protected areas in climate change mitigation" PNAS 107 (2010); National Institute of Space Research data; GEF Evaluation Office, "GEF Impact Evaluation of the Phase-Out of ODS in CEIT: Volume I" (2009); GEF, "Investing in the phase-out of ozone-depleting substances: the GEF experience" (2010)

# Transform policy frameworks

## REDP and CRESP

### *Transforming China's renewable energy market*

\$76M grant over two major interventions drove key laws and regulations in Chinese electricity sector

**Cofinancing: 7.9x**



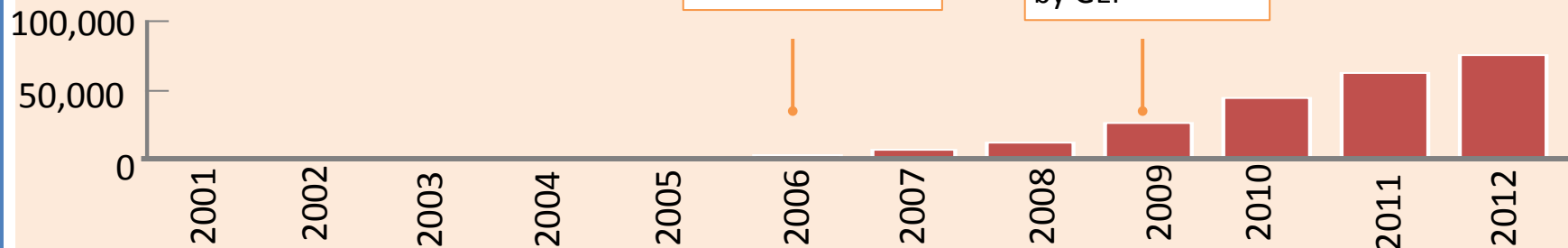
*Promoted policy dialogue with National Development and Reform Commission of China*

### Catalytic impact

- China's installed wind capacity **increased 100-fold** from 2006 to 2012, from just **760 MW** to over 75 GW, and is expected to reach **150 GW by 2015**
- In 2012, electricity produced from wind power grew at a rate faster than electricity from coal in China for the first time ever

### Installed wind capacity in China

Cumulative MW





# Supporting innovation/“early adoption”

## Concentrating Solar Power (CSP) in Egypt, Morocco, Mexico

\$142M in grants to support four large-scale projects in Egypt, Morocco, Mexico and India to push concentrating solar power down the cost curve

**Cofinancing: 7.7x**



*Engaged with different partners across countries depending on policy and market context*

### Catalytic impact

- According to an independent review, program **catalyzed development of an industry / technology** where there previously had been little global activity
- Sustained GEF commitment made **CSP ready for scaled-up investment** by CTF & others
- Even projects that were less than successful, **provided key lessons learned** for future GEF and industry investments



Source: MSNBC



# Mobilize diverse stakeholders

## Great Green Wall Initiative

### *Fighting desertification while enhancing resilience*

\$87M grant to support a pan-African proposal to “green” the continent from west to east in order to combat desertification and enhance climate resilience

**Cofinancing: 20.7x**

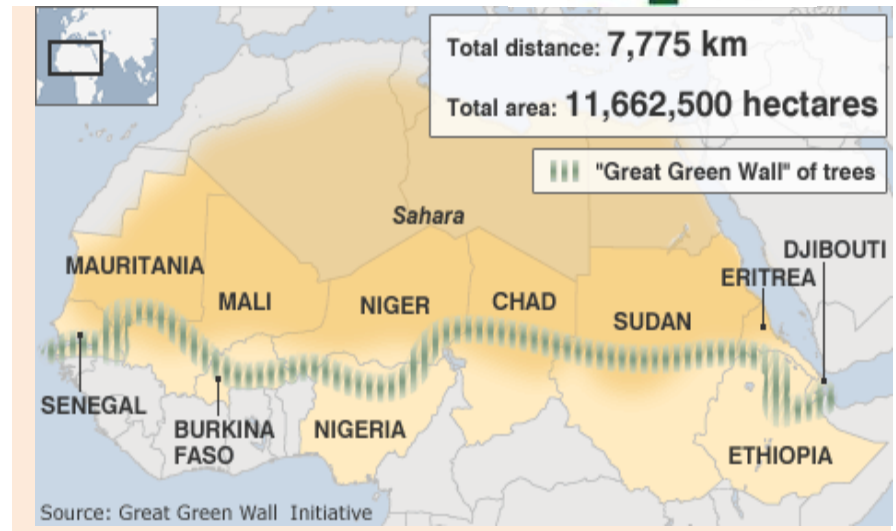


*Coordinated with LDCF and supported country cooperation through Pan-African Agency for the Great Green Wall*



### Catalytic impact

- By **linking national-level efforts across borders**, countries are coming together pursue development pathways that will increase resilience of ecosystem and human communities to climate change
- Innovative transboundary approaches** address threats from land & soil degradation, desertification, deforestation, water scarcity and biodiversity loss



# Set standards to shift markets

## En.lighten

### *Transitioning to energy-efficient lighting*

\$5M grant to support development of harmonized technology standards **to** speed the transition to efficient lighting in developing countries and emerging economies



*Created expert task forces of private sector, government, civil society and academia*

**Cofinancing: 3.0x**

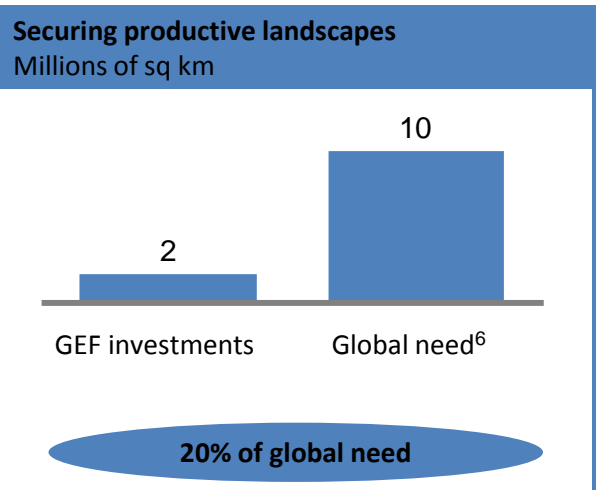
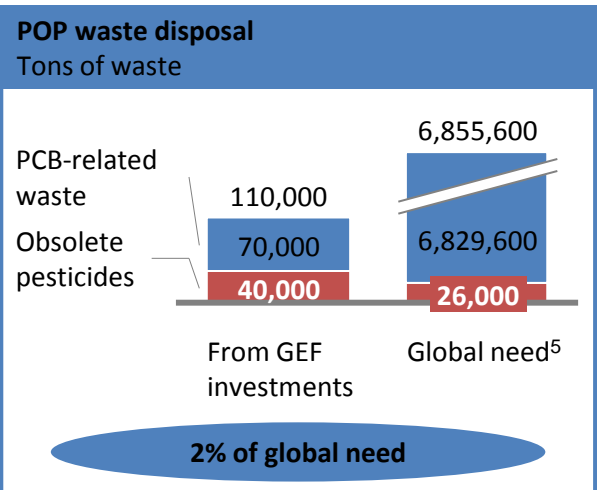
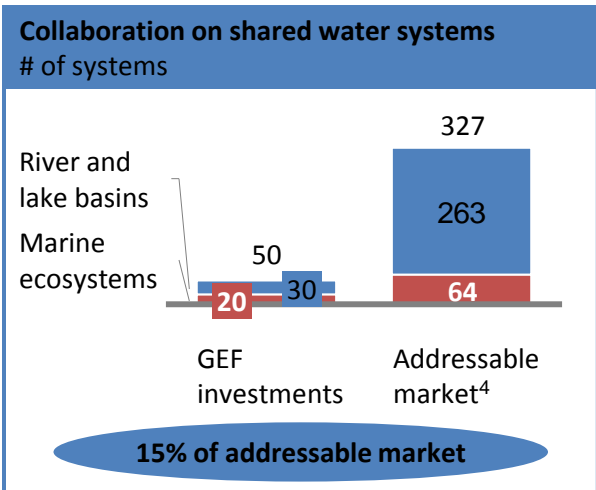
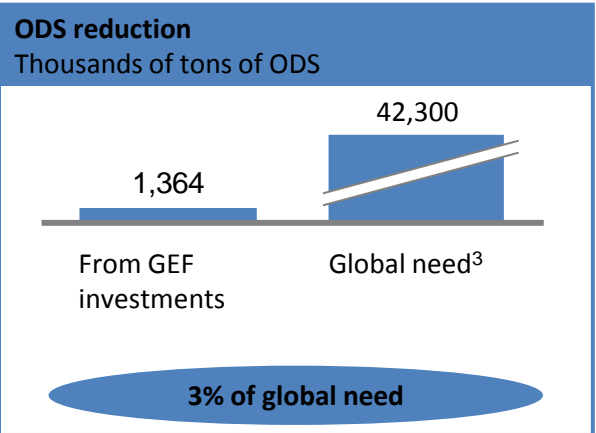
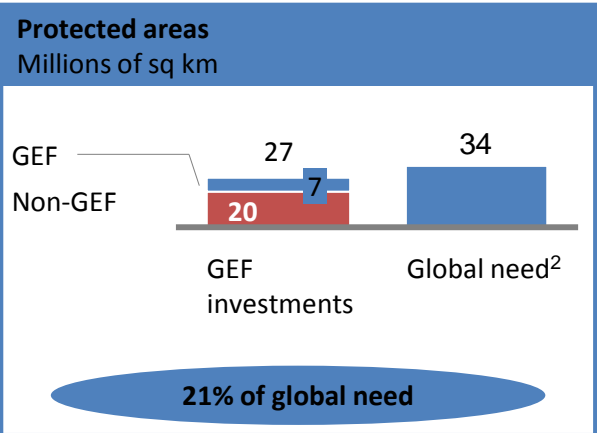
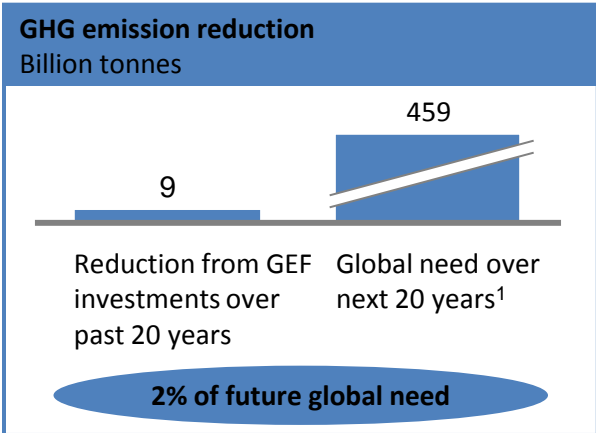


### Catalytic impact

- Global transition to efficient lighting could reduce CO<sub>2</sub> emissions by 1% - equivalent to **taking 61M cars off the road**
- Success with residential lighting has laid foundation for **expansion to commercial and street lighting**
- Market entry for high performance technologies, such as LED, is **benefiting from stakeholder expertise and policy development**



# Despite progress, global need remains great



Note: Global need figures represent need across all countries, while GEF's mandate extends only to developing countries and CEITs

1 Emissions reductions required against business as usual scenario (2013-33) to achieve an emissions trajectory that is likely to limit warming to below 2 degrees C

2 From Aichi Target 11, that 17% of the surface of the planet should be protected by 2020

3 Montreal Protocol phase-out targets, combined Phase I and Phase II; in metric tons

4 UNEP / GRID – Arendal data on international river and lake basins

5 Estimates from national implementation plans submitted to the Stockholm Convention Secretariat

6 UNCCD estimates of area affected by human induced land degradation

# The Slaughtering of Forests



**Cattle is the largest driver of tropical deforestation in the world, responsible for 1 in 8 hectares destroyed globally**

A

# The main food production drivers of environmental impact are cattle, palm oil, fish, and rice

■ Low impact   
 ■ Medium impact   
 ■ High impact

Environmental impact<sup>12</sup>

	Land-use	Water Use	CO <sub>2</sub>	Land degradation and water pollution	Land and ocean biodiversity
	Hectares affected in 2030 / Size of habitat impacted by 2030	Km3 withdrawals in 2030	tCO <sub>2</sub> e in 2030 (includes direct factors such as deforestation, as well as indirect, such as fertilizer)	Qualitative assessment (expert interviews)	Qualitative assessment (expert interviews)
Cattle	High impact	High impact	High impact	Medium impact	High impact
Palm oil	Medium impact	Low impact	High impact	Medium impact	High impact
Fish	High impact	Medium impact	Low impact	High impact	Medium impact
Rice	Medium impact	High impact	High impact	Medium impact	Low impact
Wheat	Medium impact	High impact	High impact	Medium impact	Medium impact
Biomass	Medium impact	High impact	Medium impact	Medium impact	Medium impact
Corn	Medium impact	High impact	Medium impact	Medium impact	Medium impact
Soy	Medium impact	Low impact	Medium impact	Medium impact	Low impact
Sugarcane	Low impact	Medium impact	Low impact	Medium impact	Medium impact

1 The order of magnitude of impact determines whether it is categorized as low, medium, or high. Impacts categorized as high tend to be >5 times as strong as one classified as medium, which tend to be >5 times as strong as ones categorized as low impact

2 The analysis looks very similar whether we look at 2030 or today

Source: McKinsey analysis

# Signature Program

## Taking Deforestation Out of the Supply Chain



**Agricultural  
inputs**

**Agricultural  
production**

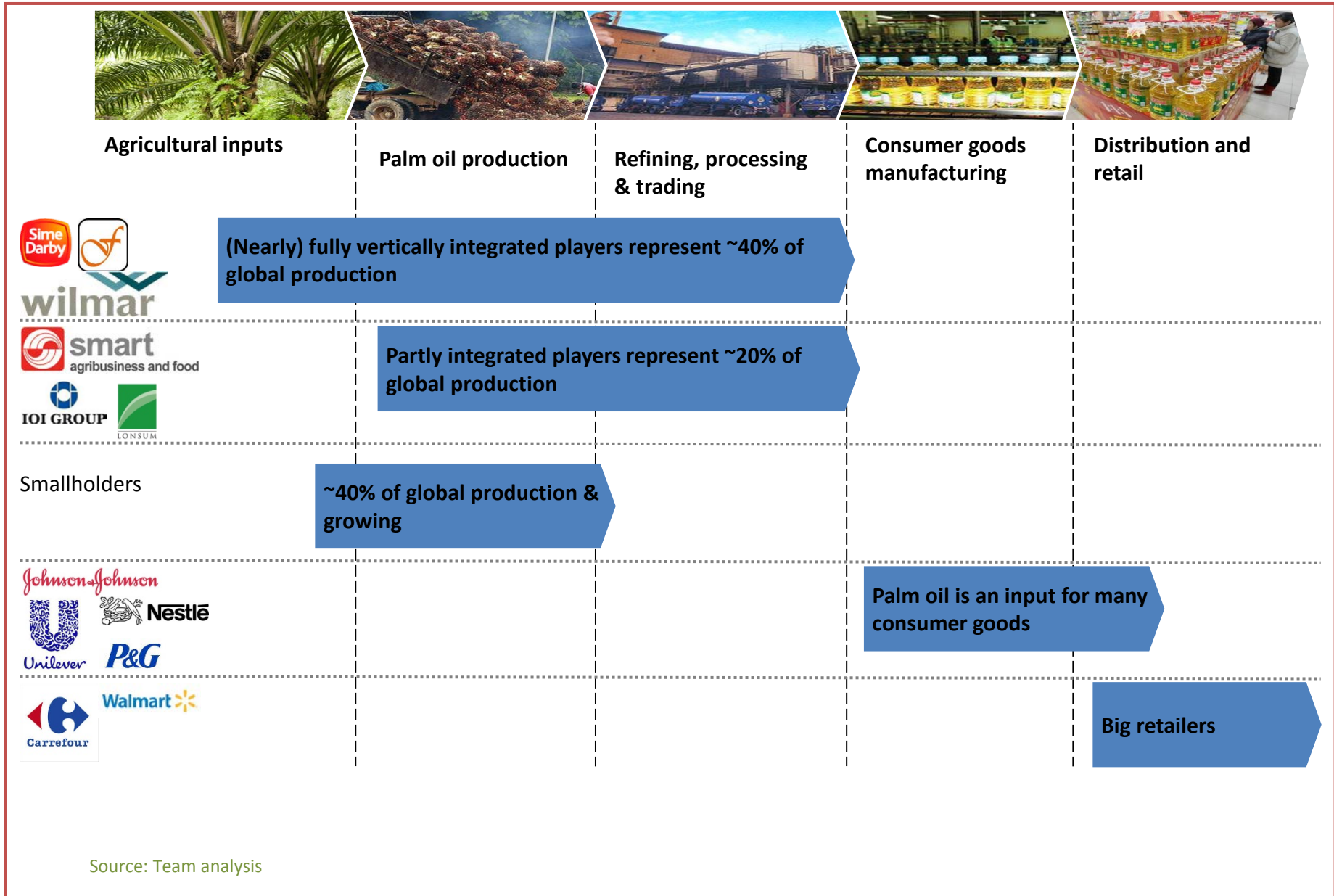
**Refining,  
processing &  
trading**

**Consumer  
goods  
manufacturing**

**Distribution  
and retail**



# Important players along the palm oil value chain

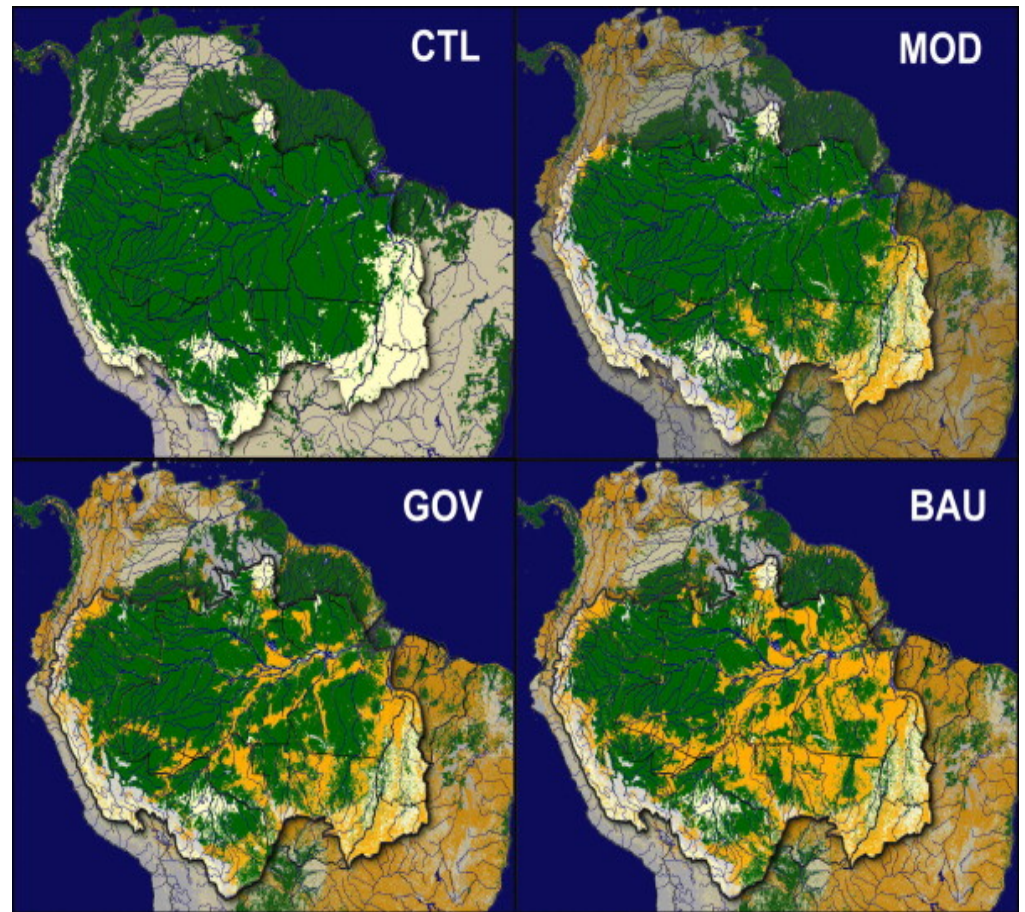


# Signature Program

## Avoiding the Amazon Dieback



Roads, hydrovias and energy infrastructure



CTL = Potential vegetation (Green = Forests, White = Savannas)  
MOD = Actual vegetation in 2000 (Yellow = Agriculture)  
GOV = Estimated vegetation cover with strong governance in 2050  
BAU = Estimated vegetation cover with weak governance) in 2050



# Signature Program

## Joining with the Alliance for a Green Revolution in Africa





# Countdown to Fisheries Depletion



# Countdown to Fisheries Depletion





# Countdown to Fisheries Depletion







# Signature Program

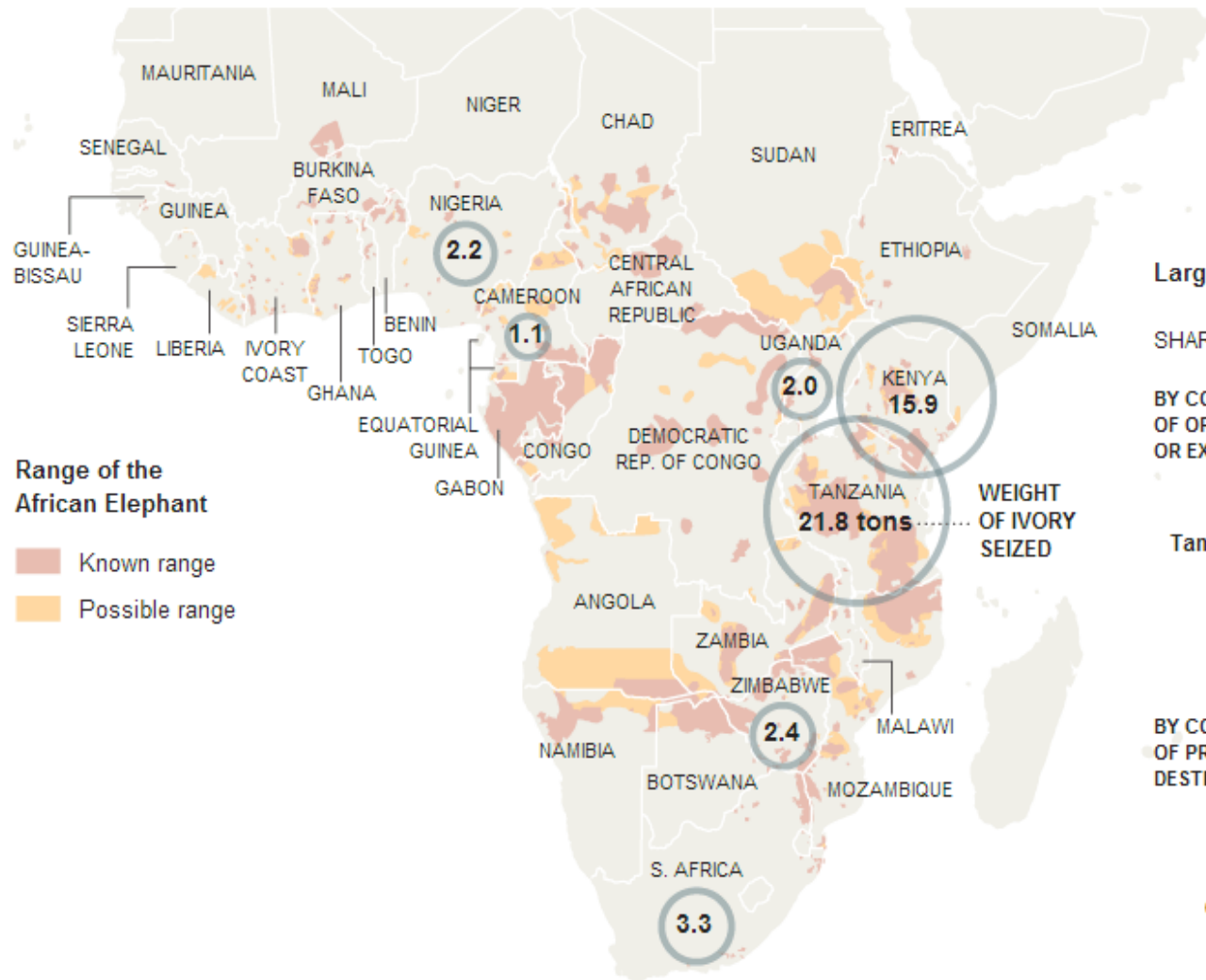


**A 10-year target to bring 50% of fisheries  
under sustainable management while  
increasing economic benefits by US\$20B  
annually**

# Anthropocene Megafauna Extinctions



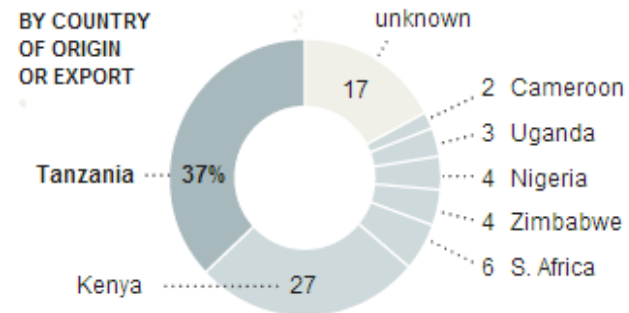
# Fighting Against Wildlife Poaching and Illegal Trade in Africa



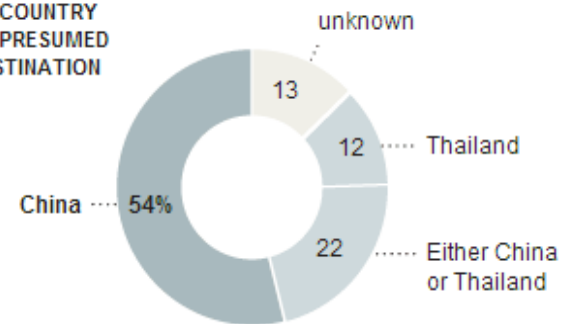
## Large-scale ivory seizures, 2009-11

### SHARE OF SEIZED SHIPMENTS BY WEIGHT

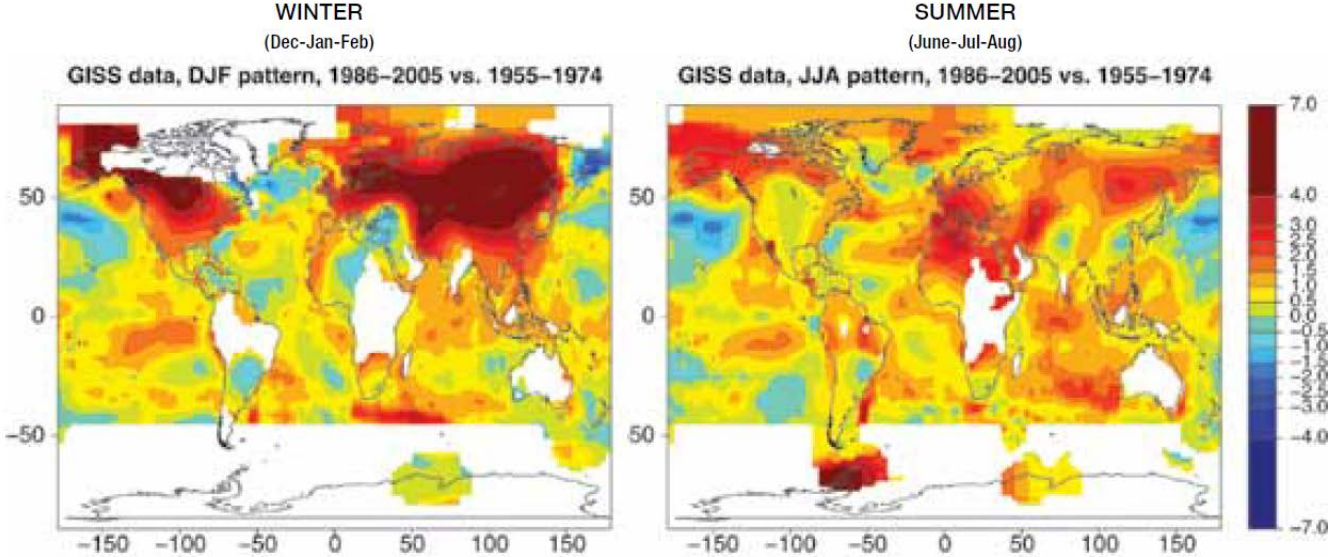
#### BY COUNTRY OF ORIGIN OR EXPORT



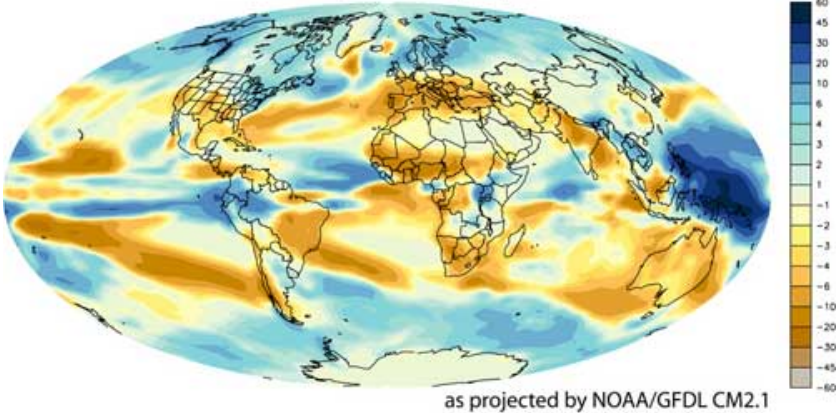
#### BY COUNTRY OF PRESUMED DESTINATION



# Climate Change: Planetary Tipping Point



**CHANGE IN PRECIPITATION BY END OF 21st CENTURY**  
inches of liquid water per year





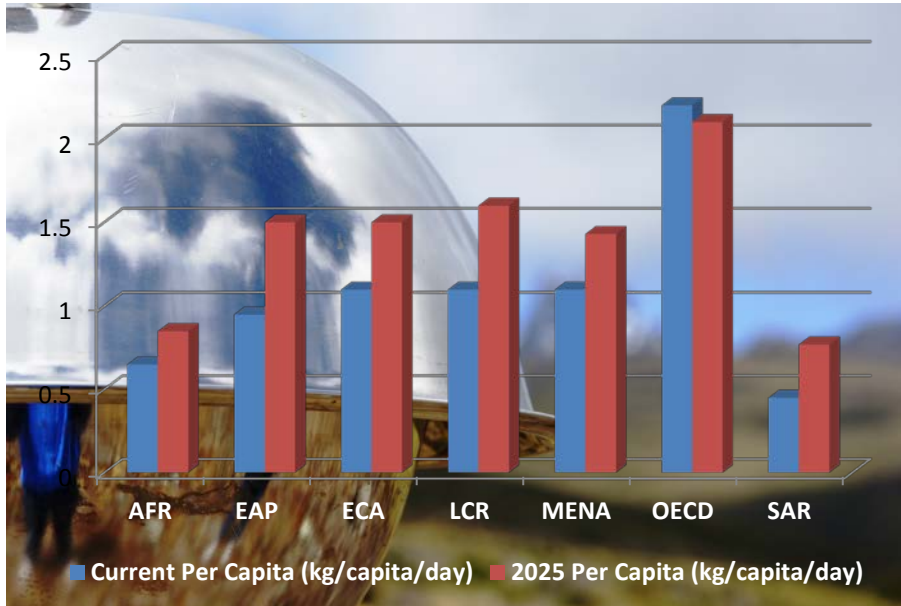
# Anthropogenic Drivers of Climate Change







# Toxic Chemicals and Waste Poison the Global Environment



# Mercury Contamination Poisons Humans and the Global Environment



# Thank You!

## Questions?

*Please visit us at: [www.thegef.org](http://www.thegef.org)*