



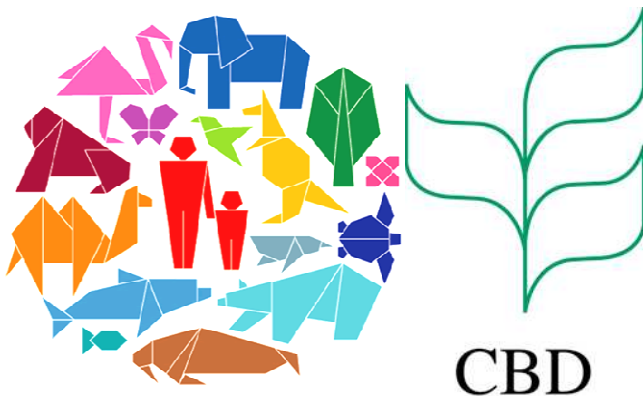
Positive incentive measures for conservation and sustainable use of biodiversity

Andrew Seidl, IUCN

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Africa Regional workshop on Updating NBSAPs

Addis Ababa, Ethiopia, 29 Feb-2 March, 2012



International Union for Conservation of Nature

Secretariat of the
Convention on
Biological Diversity

CBD Technical Series No. 56



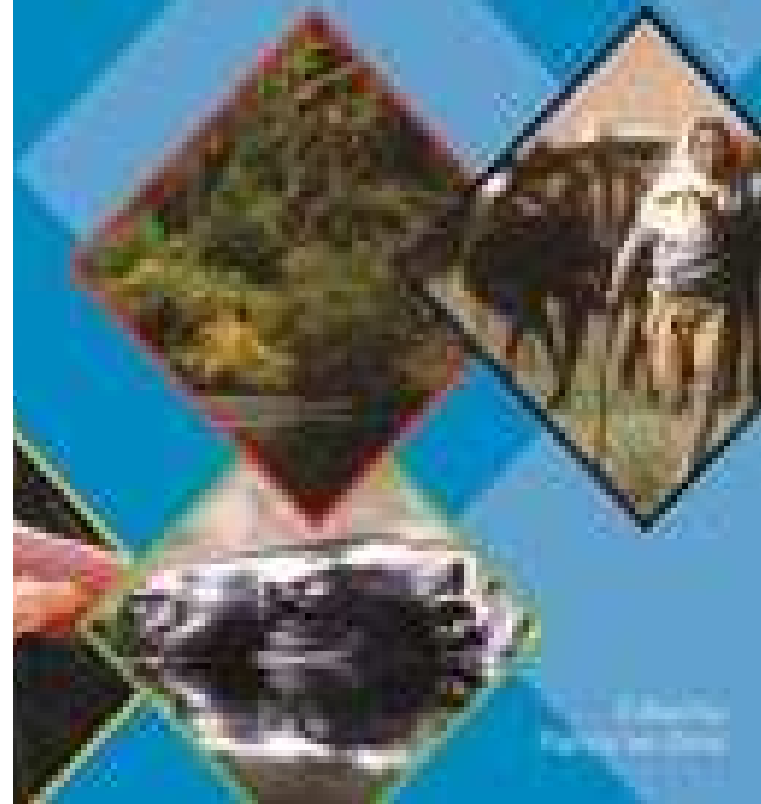
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Incentive measures for the conservation and sustainable use of biological diversity

Case studies and lessons learned



The Economics of Ecosystems and Biodiversity National and International Policy Making



International Union for Conservation of Nature

X/44. Incentive measures



“By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and **positive incentives for the conservation and sustainable use of biodiversity are developed and applied**, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.”

What are incentives?



Incentives:

the opportunities and constraints that influence the behaviour of individuals and organisations in a society, deriving from a wide range of societal factors, including, but not limited to, from measures taken by governments

Incentive measures:

“...economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.” (Article 11 CBD)

A specific inducement designed and implemented to individuals to conserve biological diversity or to use its components in a sustainable manner

CBD (2011). Incentive measures for the conservation & sustainable use of biological diversity: Case studies & lessons learned, Technical Series No. 56



1. Direct approaches - ‘paying’ relevant actors to achieve biodiversity-friendly outcomes or to not achieve biodiversity-harmful outcomes

- payments for ecosystem services, incl. market creation
- taxes and user fees and exemptions to encourage activities beneficial for conservation and/or sustainable use
- long-term retirement (or set aside) schemes, conservation leases or easements

2. Indirect approaches - support activities or projects that are not designed exclusively to **conserve or promote the sustainable use of biodiversity, but which contribute to these objectives**

- **development or commercialization of biodiversity-based products or services (eco-tourism, biotrade)**
- **community based natural resource management**

From ecosystem decline to ecosystem incentives



“Enhanced”

Crops
Livestock
Aquaculture
Carbon sequestration

“Degraded”

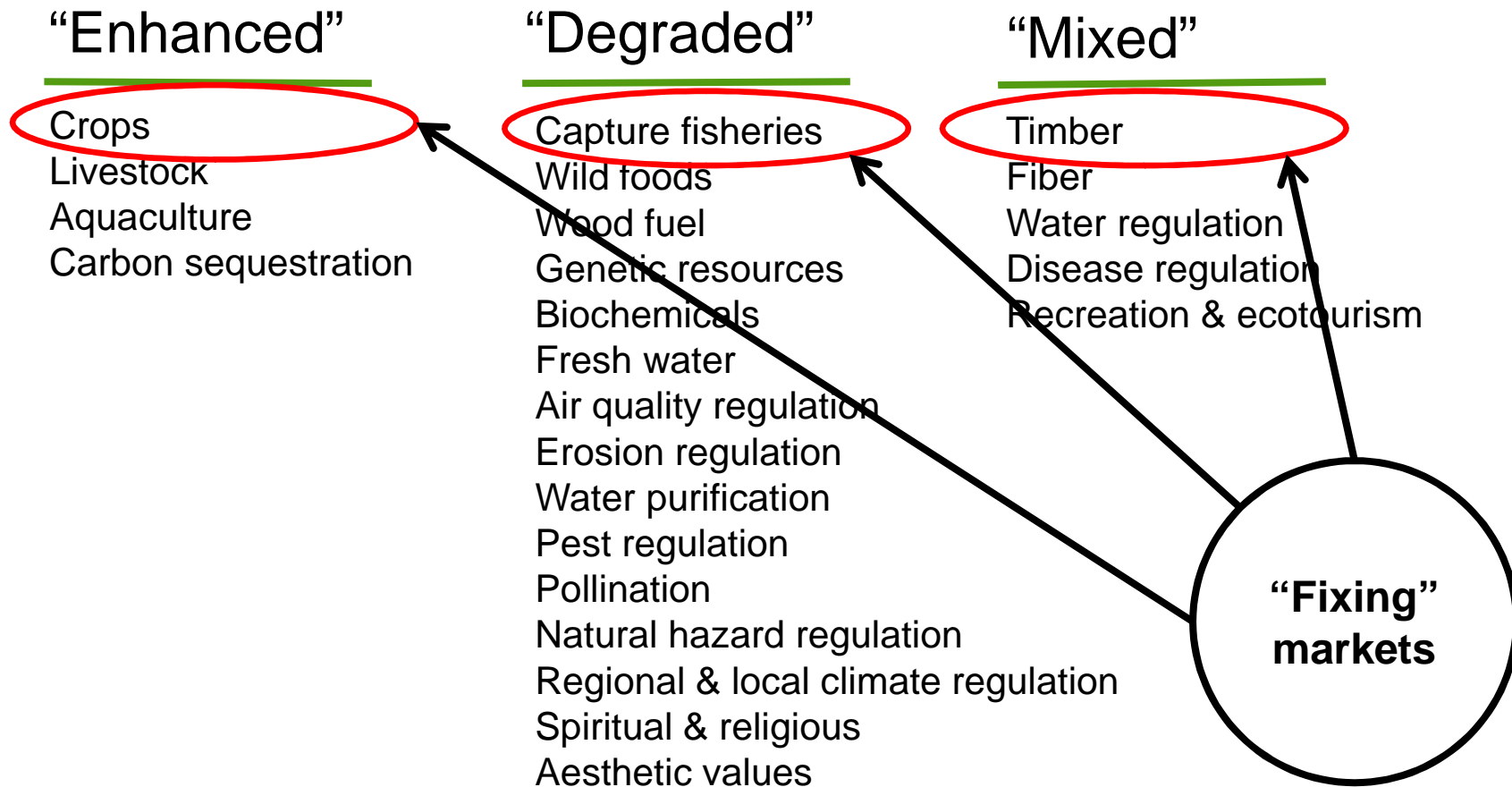
Capture fisheries
Wild foods
Wood fuel
Genetic resources
Biochemicals
Fresh water
Air quality regulation
Erosion regulation
Water purification
Pest regulation
Pollination
Natural hazard regulation
Regional & local climate regulation
Spiritual & religious
Aesthetic values

“Mixed”

Timber
Fiber
Water regulation
Disease regulation
Recreation & ecotourism

Source: Millennium Ecosystem Assessment, 2005.

From ecosystem decline to ecosystem incentives by fixing markets (CBD “indirect approaches”)



Fixing markets: 'green' products and services

- **Organic food and drink:** Global sales = US\$ 60 billion in 2009
- **Certified 'sustainable' forest products:** sales increased four-fold between 2005 and 2007
- **Eco-labeled fish products:** global market grew by over 50% from 2008 to 2009 to US\$ 1.5 billion
- **Eco-friendly attributes:** Major consumer brands have added 'ecologically-friendly' attributes to product lines:
 - Mars (Rainforest Alliance cocoa)
 - Cadbury (Fairtrade cocoa)
 - Kraft (Rainforest Alliance Kenco coffee)
 - Unilever (Rainforest Alliance PG Tips)



FSC FOREST STEWARDSHIP COUNCIL
Because forests matter

Eco-tourism: Mkuru Camel Safari



- **Where?** Northern Tanzania
- **Who?** Istituto Oikos, the Tanzania Tourism Board and the Mkuru Camel Group, a community organisation.
- **What?** Camel and walking safaris run by Maasai guides for experiencing the cultural and natural heritage of the region.
- **Conservation reasoning:** Counter local dependence on unsustainable practices with the provision of sustainable livelihood options.
- **Success factor:** Local partnerships and community management.



Community-based natural resource management



- Policies which encourage the involvement of traditional and local communities in conservation
 - Wildlife in PAs
 - Sustainable forest management
- Rely on generating and sharing new revenue
- May be based on traditional knowledge
- **Community forestry in India** where benefits of NTFP shared between joint forest mgt committees and States
- **Eco-tourism in Egypt** – govt promoting bedouin-managed ecotourism enterprises (lodging, treks and crafts)

From ecosystem decline to ecosystem incentives



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From ecosystem decline to ecosystem incentives by creating markets (CBD “direct approaches”)



“Enhanced”

Crops
Livestock
Aquaculture
Carbon sequestration

“Degraded”

Capture fisheries
Wild foods
Wood fuel
Genetic resources
Biochemicals
Fresh water
Air quality regulation
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Natural hazard regulation
Regional & local climate regulation
Spiritual & religious
Aesthetic values
Habitat restoration and conservation

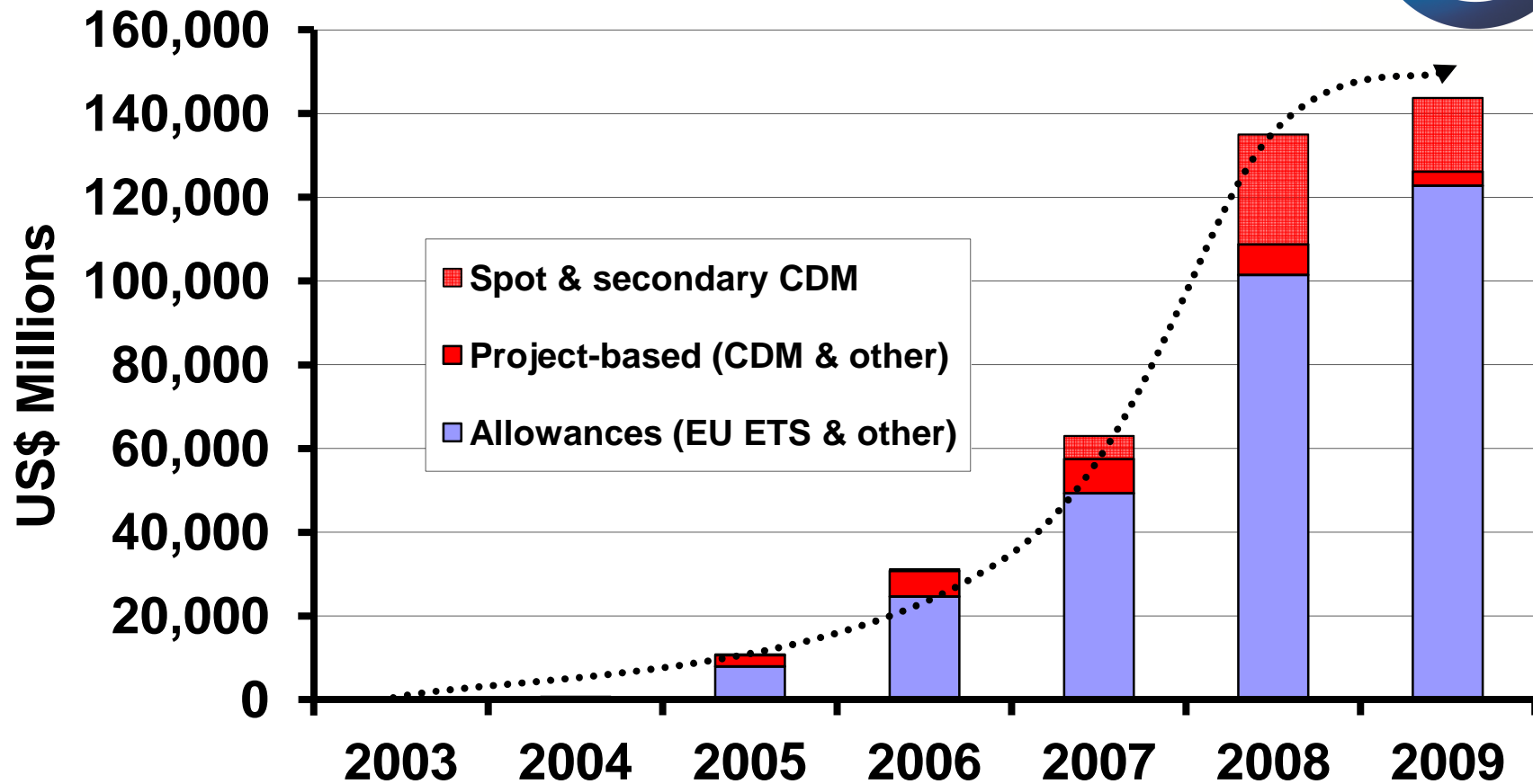
“Mixed”

Timber
Fiber
Water regulation
Disease regulation
Recreation & ecotourism

Creating
markets

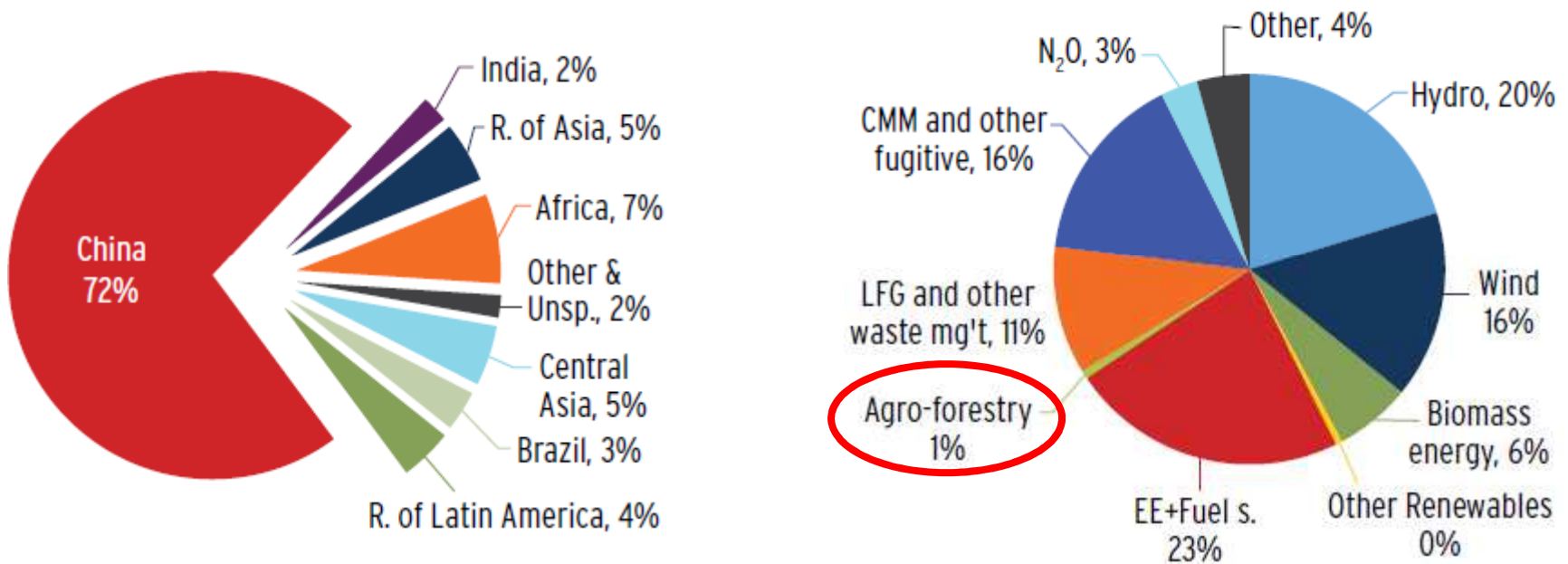
The diagram features a central circle labeled 'Creating markets'. Three arrows originate from this circle: one points upwards to the 'Enhanced' category, one points diagonally upwards to the 'Degraded' category, and one points diagonally downwards to the 'Mixed' category. Several items in the 'Degraded' list are circled in red: 'Genetic resources', 'Water purification', and 'Habitat restoration and conservation'. 'Carbon sequestration' in the 'Enhanced' list is also circled in red.

Creating markets: The case of carbon



Cumulative 2003-2009: US\$307 billion (CDM US\$78 billion)

Creating markets: Carbon offsets as a new export sector for developing countries



Primary CDM sellers and sectors in 2009, as percent of total volume transacted
(Source: World Bank 2010).



Creating markets: Biodiversity offsets and “habitat banking”



“The global annual market size is at least \$1.8-\$2.9 billion” (Madsen et al. 2010)
(see: www.speciesbanking.com)

Payments for ecosystem services (PES)



National PES Programmes	Annual Budget in USD
China, Sloping Land Conversion Programme (SLCP)	4 billion (Bennett, 2008)
Costa Rica, Payments for Environmental Services (PES)	12.7 million (FONAFIFO, 2009)
Mexico, Payments for Environmental Hydrological Services (PEHS)	18.2 million (Muñoz Piña <i>et al.</i> , 2008)
UK, Rural Development Programme for England	0.8 billion (Defra, 2009)
US, Conservation Reserve Program (CRP)	1.7 billion (Claassen, 2009)
Regional PES Programmes	Annual Budget in USD
Australia, Tasmanian Forest Conservation Fund (FCF)	14 million (DAFF, 2007)
Australia, Victoria State ecoMarkets	4 million (DSE, 2009)
Bulgaria and Romania, Danube Basin	575 000 (GEF, 2009)
Ecuador, Profafor	150 000 (Wunder and Alban, 2008)
Tanzania, Eastern Arc Mountains	400 000 (EAMCEF, 2007)

What about the social impacts of changing incentives?



Ecosystem incentives and poverty

- **Potential opportunities:**
 - increase cash income
 - diversify income sources
 - reinforce social networks
 - develop new skills
- **Potential constraints:**
 - insecure property rights
 - high start-up and transaction costs
 - weak enforcement capacity



Changing the incentives: summing up



	Ecosystem Damage (Business as usual)	Conservation & Sustainable Use
Costs	<p>Need to rise through:</p> <ul style="list-style-type: none"> • Technological limits • Resource taxes/fees • Reporting requirements • Naming and shaming 	<p>Need to fall through:</p> <ul style="list-style-type: none"> • Tax credits • Facilitated permitting • Lower interest rates
Benefits	<p>Need to fall through:</p> <ul style="list-style-type: none"> • Consumer boycotts • Trade barriers (where allowed) 	<p>Need to rise through:</p> <ul style="list-style-type: none"> • Consumer choice • Payment for ecosystem services • Market creation • CBNRM

Target setting on positive incentives



1. How can existing positive incentives be improved?

- How to replicate or expand coverage?
- How to improve targeting/effectiveness?
- How to improve social/equity impacts?
- How to improve financial sustainability?
 - Opportunities for “self-financing”?
 - Opportunities to reduce costs?

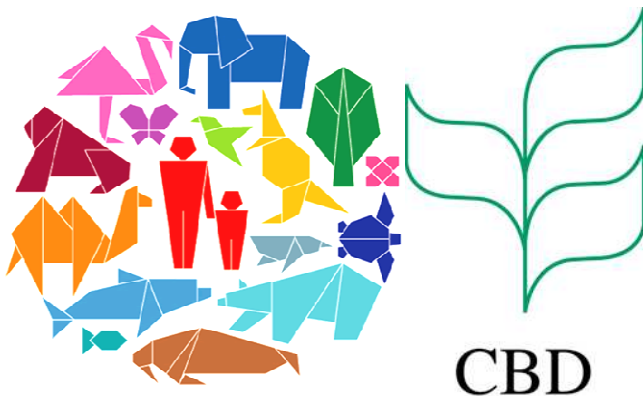
2. What new positive incentives may be introduced?

- What criteria are most relevant to identify high potential or high priority for introducing positive incentives? Existing threats to biodiversity? Economic values of biodiversity? Social development concerns?
- What are the key steps involved in introducing new positive incentives?

Towards innovative financial mechanisms for biodiversity conservation



Target 20: Resource mobilization



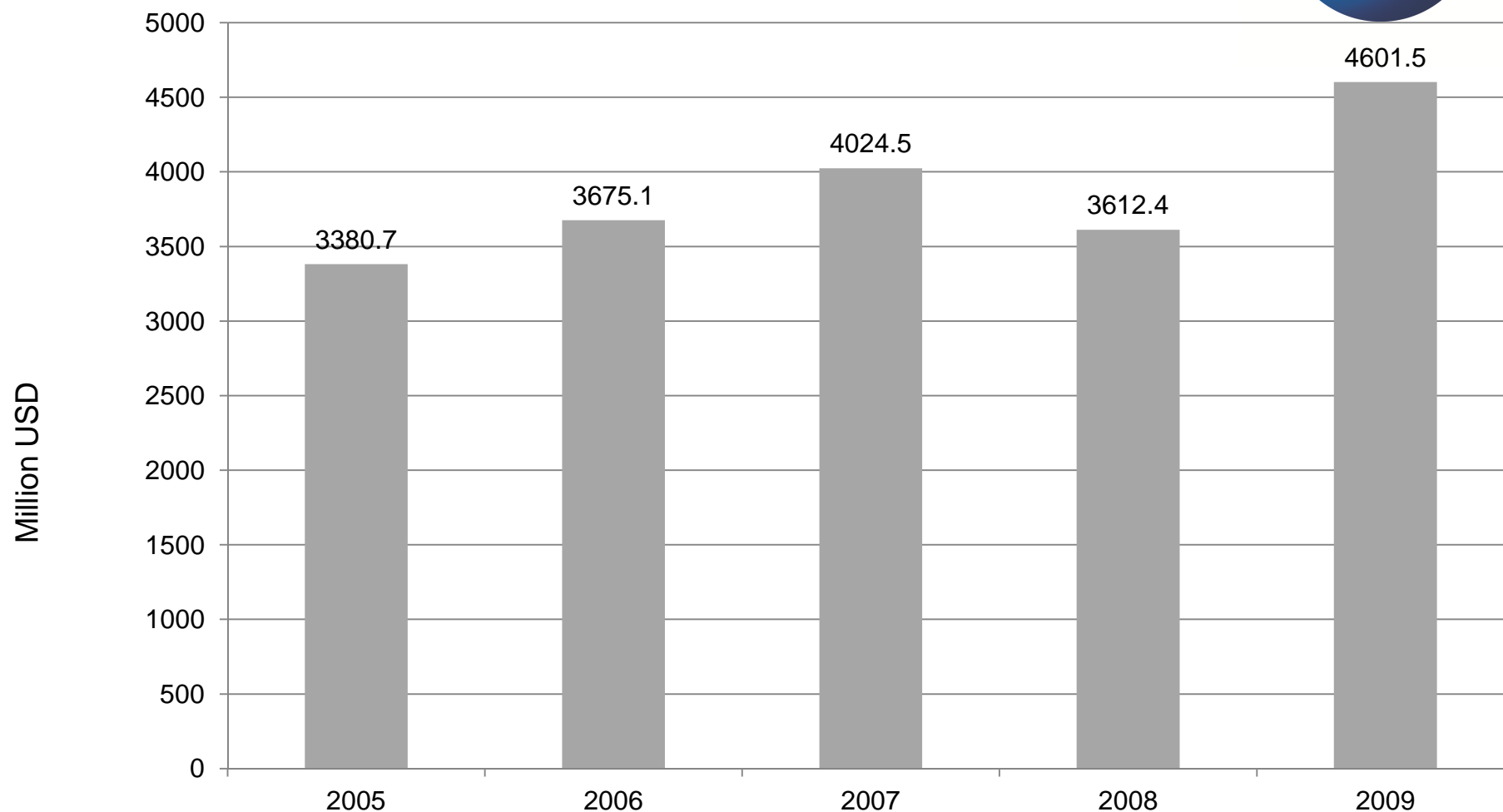
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IUCN urges Parties to:

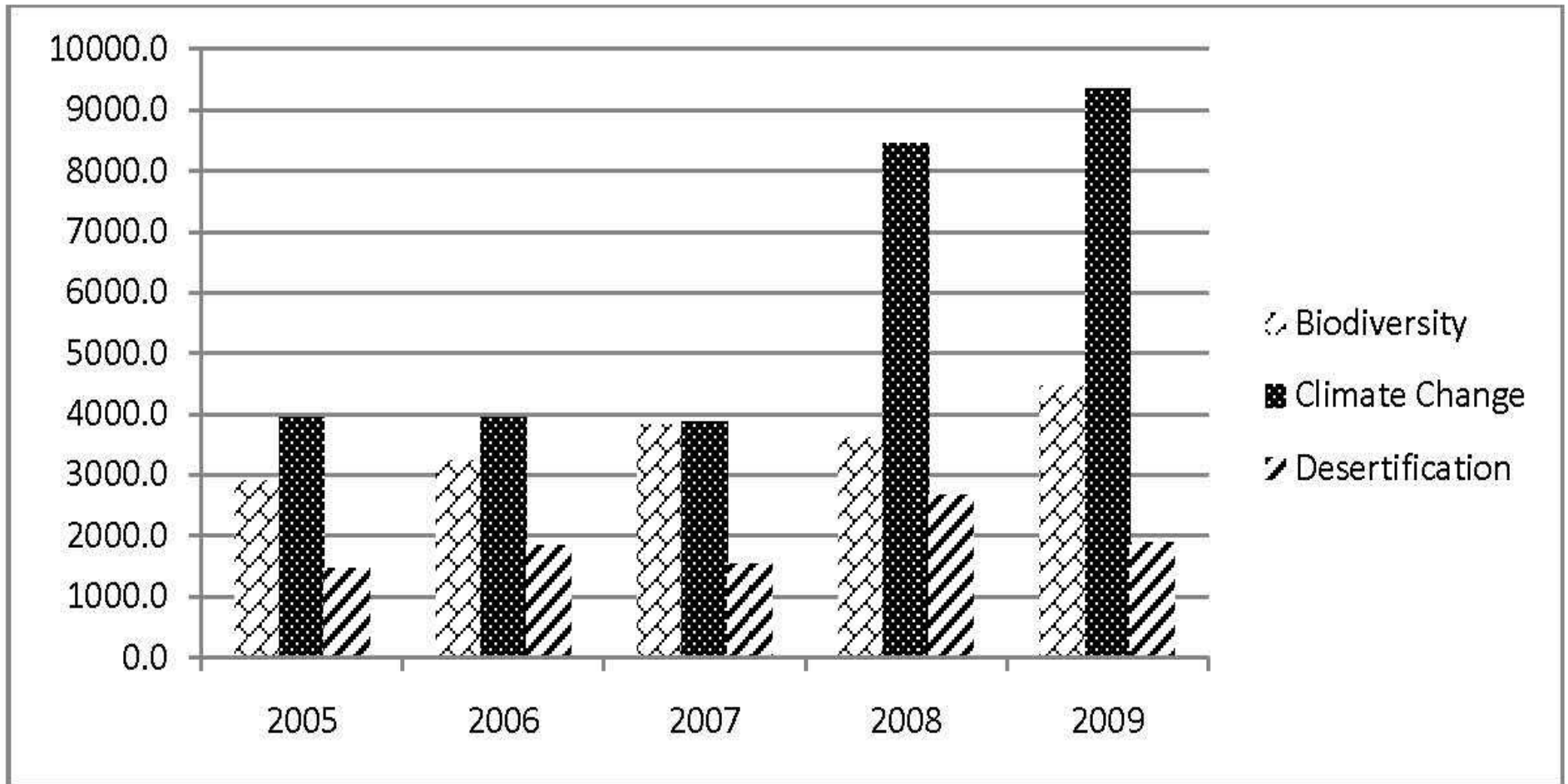


- **Adopt a broad view** of resource mobilization, notably by mobilizing resources beyond international development assistance and the existing financial mechanism of the CBD;
- Implement the recommendations of the study of The Economics of Ecosystems and Biodiversity (TEEB) with regard to the integration of biodiversity and ecosystem service values in the development of **national policy** and economic decisions at all levels (Target 2); and
- **Align existing biodiversity financing mechanisms** with broader efforts to accelerate the transition to a green economy (Target 3).
- Support efforts to develop and implement **innovative financial mechanisms**, as noted in paragraph 6(e) in the draft decision text;
- Support efforts to **mobilize additional business contributions** to biodiversity conservation, in particular through the Business and Biodiversity Offset Program (BBOP) and the Green Development Mechanism (GDM) initiative;

Trends in ODA earmarked for biodiversity (Million USD, Real prices, 2008=100)



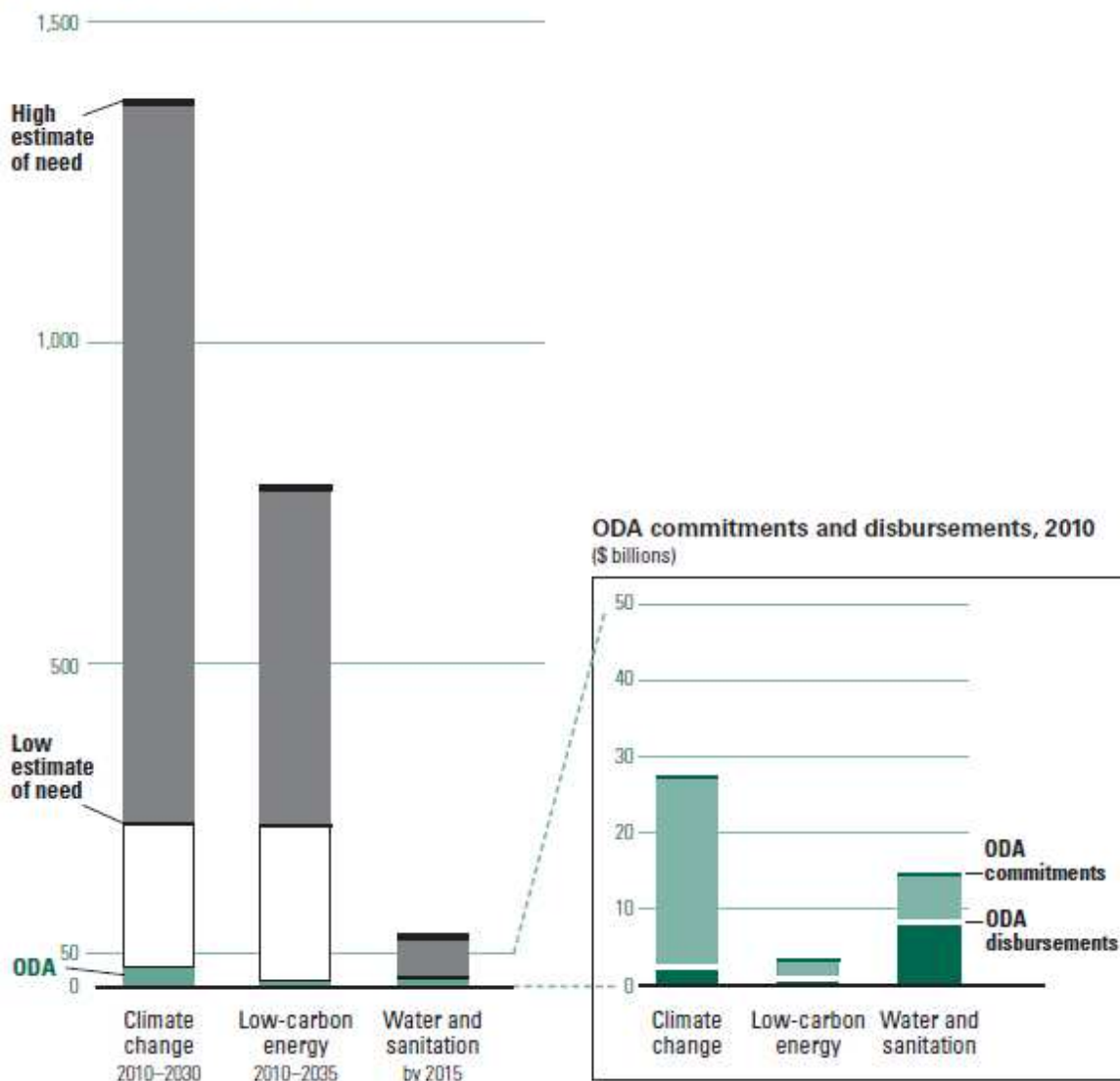
CBD in Context



Official development assistance falls far short of needs

Estimated future needs and existing official development assistance (ODA)

Annual expenditures (\$ billions)



Source: International Energy Agency, 2010, *World Energy Outlook*, Paris; Organisation for Economic Co-operation and Development; UN Water, 2010, *Global Annual Assessment of Sanitation and Drinking-Water: Targeting Resources for Better Results*, Geneva; World Health Organization; United Nations Department of Economic and Social Affairs, 2010, *Promoting Development, Saving the Planet*, New York: United Nations; and OECD Development Database on Aid Activities: CRS online.



Evidence of a funding gap

‘The financing needed for development — including environmental & social protection — will have to be many times greater than current official development assistance. Spending on low-carbon energy sources... is only 1.6% of the lowest estimate of need.’ Helen Clark

International Union for Conservation of Nature

Evidence of a sufficient market to bridge the funding gap



- The wealthiest of the world's governments have committed 0.7% of gross national product (GNP) to Official Development Assistance.
 - ODA assistance targeted for biodiversity is about \$4 billion per year (2.8% of total).
- In 2010, the total revenues of the world's 500 largest companies was \$23 trillion.
 - A target of 0.7% for the top 500 companies would generate revenues of \$160 billion.
 - A target of 0.1% of total revenue would generate \$23 billion, which is >5 X the amount of OECD ODA funds targeted to biodiversity conservation.

Biodiversity finance in a wider context



ODA

USD 104 billion in 2006
(of which \$19 billion in debt
relief)¹

← *2.8% for
biodiversity
(2002-05 average)²*

International
private capital
flows to dev.
countries

USD 647 billion in 2006
(Global Dev. Finance 2007)³

Developing
country exports

USD 4,335 billion in 2006
(World Bank, 2007)⁴

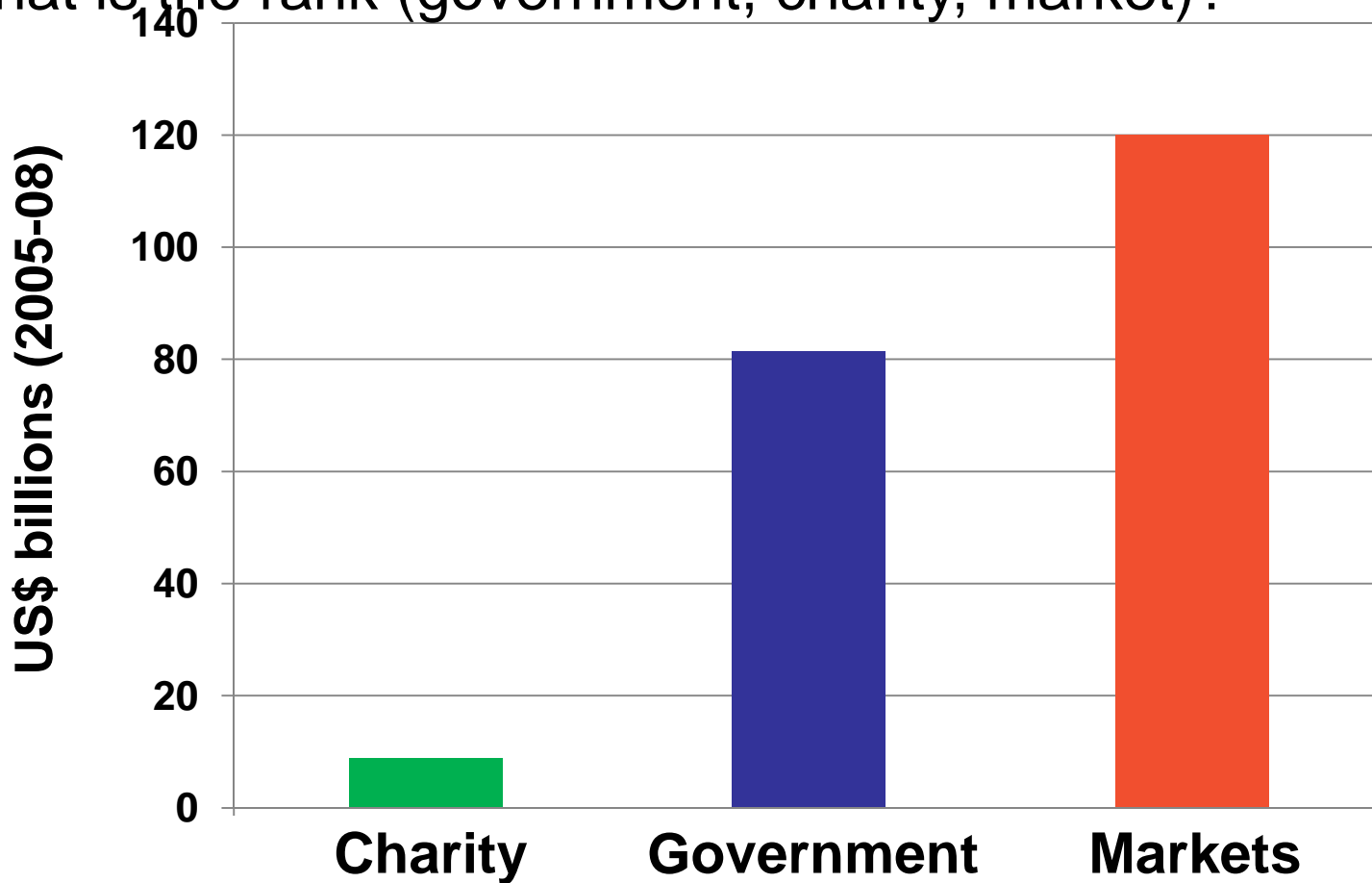
Developing country
domestic markets

~ USD 11,000 billion in 2006
(World Bank, 2007)⁵



US public & private spending on biodiversity

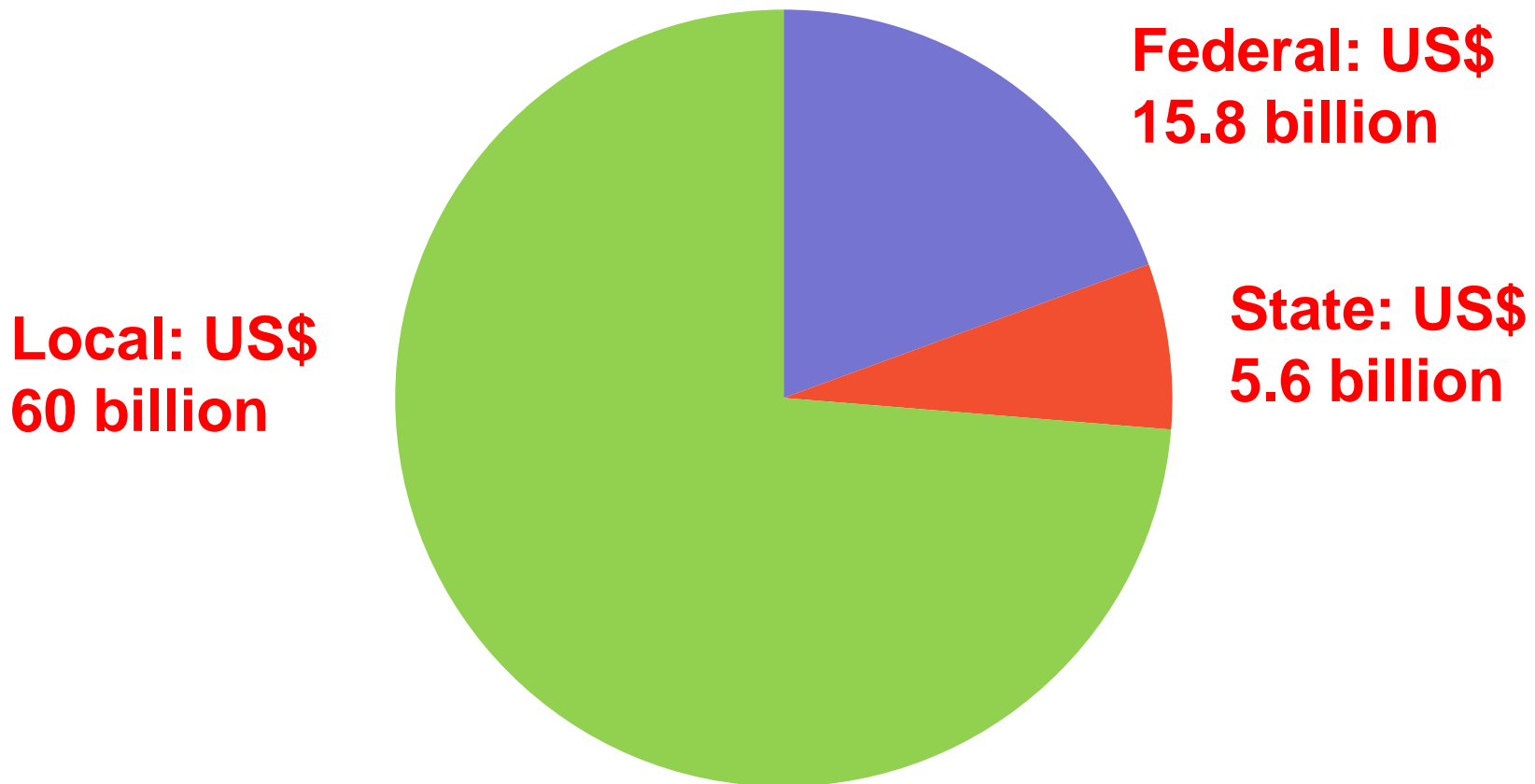
What is the rank (government, charity, market)?



US government spending on biodiversity



1. What was the total in FY2008? **US\$ 81.4 billion**
2. What was the rank (federal, state, local)?



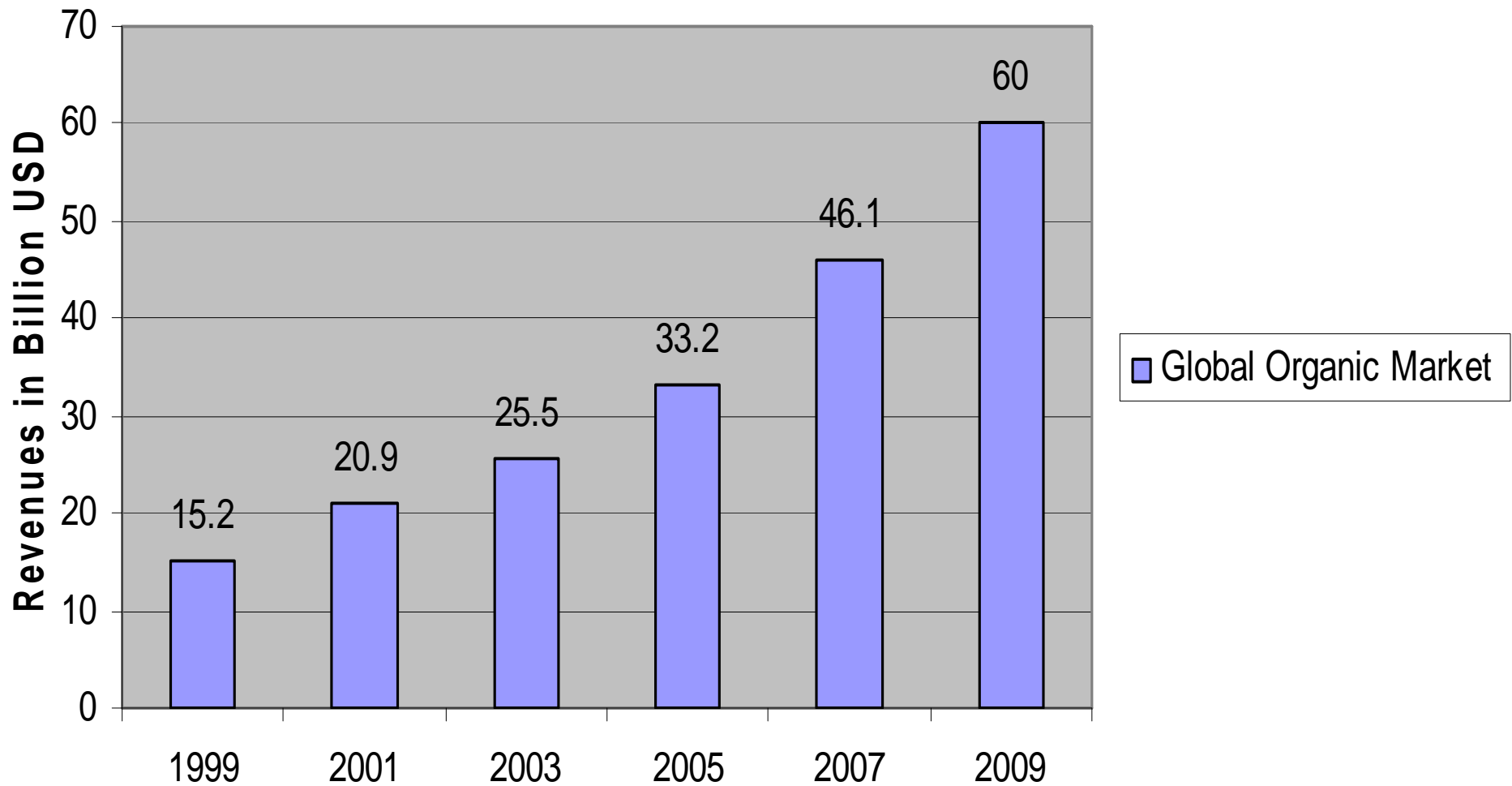


Evidence of demand for voluntary compliance programmes



Market opportunities	Market size (US\$ per annum)		
	2008	Est. 2020	Est. 2050
Certified agricultural products (e.g., organic, conservation grade)	\$40 billion (2.5% of global food & beverage market)	\$210 billion	\$900 billion
Certified forest products (e.g., FSC, PEFC)	\$5 billion of FSC-certified products	\$15 billion	\$50 billion
Bio-carbon / forest offsets (e.g., CDM, VCS, REDD+)	\$21 million (2006)	\$10+ billion	\$100+ billion
Payments for water-related ecosystem services (government)	\$5.2 billion	\$6 billion	\$20 billion
Payments for watershed management (voluntary)	\$5 million Various pilots (Costa Rica, Ecuador)	\$2 billion	\$10 billion
Other payments for ecosystem services (government-supported)	\$3 billion	\$7 billion	\$15 billion
Mandatory biodiversity offsets (e.g., US mitigation banking)	\$3.4 billion	\$10 billion	\$20 billion
Voluntary biodiversity offsets	\$17 million	\$100 million	\$400 million
Bio-prospecting contracts	\$30 million	\$100 million	\$500 million
Private land trusts, conservation easements (e.g., North America, Australia)	\$8 billion in U.S. alone	\$20 billion	Difficult to predict

Evidence of private markets for environmentally friendly products



Green Development Initiative

- 4th expert meeting of the GDI, Sao Paulo, March 2012.
- Supported by Swiss and Dutch governments
- Biodiversity friendly management certification system.
- Certification can help to target private & public investment funds.
- Potentially could be used to create a market for certified management, somewhat like an international conservation easement credit.

Demand for GDI while biodiversity destruction is legal?



- Government regulations
 - Compliance: Mitigation, set asides, offsets (EU, Brazil, USA, etc)
 - Incentives: Tax benefits (Nederland, USA)
- Government relations
 - Green infrastructure, NBSAPs, smart policy
- Investor requirements
 - Conditionality, additivity
 - Risk management, IFC standards
- Supply chain sustainability
 - SAI, non-competitive (industry standard) approaches
 - Demand side market power, land grabs, terms of trade.
- Corporate social responsibility
 - WBCSD, Nippon Keidanren

Summary



- There is a biodiversity funding gap that ODA alone cannot bridge.
- There is a substantial information challenge in understanding the size of the biodiversity funding gap.
- There are many potential means to garner more resources for biodiversity finance.
 - More efficient & innovative policies.
 - Private sector engagement.
 - Think globally, act locally.

‘Hope rests on new (climate) finance. While market mechanisms and private funding will be vital, they must be supported and leveraged by proactive public investment. Closing the financing gap requires innovative thinking...’ Helen Clark