# Incentive measures: addressing harmful and promoting positive incentive measures

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CBD

# Target 3 of the Strategic Plan

“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.”

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# What are incentives harmful for biodiversity? Concepts

## 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

## Incentives harmful for biodiversity (or 'perverse' incentives)

emanate from policies or practices that induce unsustainable behavior that is harmful to biodiversity, often as unanticipated (and unintended) side effects of policies designed to attain other objectives

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# What are incentives harmful for biodiversity? Examples

**Detect the harmful (or "perverse") incentive:**

A rural development programme provides subsidized chemical fertilizer to farmers.

- May lead to fertilizer overuse and/or discourage other, more sustainable methods to improve soil quality

A rat extermination programme pays people per rat pelt handed in.

- People may start farming rats! (Vann 2003)

Government discusses introduction of a payment programme for farmers who adopt more sustainable agricultural practices.

- Farmers may increase their use of harmful practices so as to enhance their eligibility for receiving payments

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# What are incentives harmful for biodiversity? Types

- Environmentally harmful subsidies
  - Two general mechanisms:
    - production subsidies reduce input costs or increase revenue;
    - consumer subsidies leading to the below-cost pricing for the use of natural resources

    → incentives for the increased use of subsidized resources

    → increased production and consumption levels

    → increased environmental damage.
  - Agriculture: US$261 billion/year in OECD countries, out of which 51% increase production (OECD 2009)
  - Fisheries: US$ 30-34 billion/year globally, out of which at least 20 billion contribute to overcapacity (Sumaila and Pauly 2007)
  - Energy: US$ 500 billion/year globally, 310 billion in the 20 largest non-OECD countries in 2007 (IEA 2008)
  - Water: US$ 67 billion, out of which 50 billion harmful (Myerson and Kent 2002)

# What are incentives harmful for biodiversity? Types

- Environmentally harmful subsidies (cont.)
  - Not every subsidy is environmentally harmful
  - The size of the subsidy is not necessarily related to the size of the damage
  - Some subsidies may not be (very) cost-efficient and/or effective against their stated objectives
- Policies and laws governing resource use with harmful effects
  - Elements of land and tenure systems (‘beneficial use’ laws)
  - Certain trade policies/preferences
  - Environmental or resource management policies or programmes (possibly in conjunction with weak enforcement capacities)

# Opportunities

*"While findings would vary from sector to sector and country to country, because of other resource endowments and social outcomes, there is a significant number of examples on environmentally harmful subsidies not just in OECD countries, but also in many non-OECD countries – in particular subsidies to fertilizers and irrigation water. This includes cases of successful identification and removal or reform. Further identifying and removing or mitigating the perverse effects associated with these subsidies is an important area for further work."*

Third CBD workshop on incentive measures, Paris, October 2009

# What to do?

*”…**urges** Parties and other Governments to prioritize and **significantly increase their efforts** in actively identifying, eliminating, phasing out, or reforming, with a view to minimizing or avoiding negative impacts from, existing harmful incentives for sectors that can potentially affect biodiversity,…”*

COP-10, decision X/44, paragraph 9

(emphases added)

# 1. Identification

- Distribution: Some subsidies may turn out to not be very effective/targeted against stated socio-economic objectives
- Energy subsidies example (from TEEB report for national and international policy-makers, chapter 6)

**Box 6.2: Estimated distributional impact of energy subsidies in four developing countries**

- In **Bolivia**, the poorest 40 per cent of house-holds receive 15% of the total benefits from fuel subsidies; the richest 60% of households get 85%.
- In **Gabon**, it is estimated that the richest 10% of households capture 33% of fuel subsidies, while the poorest 30% (below the poverty line) receive merely 13%.
- In **Ghana**, the poorest 40% of households get 23% and the richest 60% capture 77% of the benefits of fuel subsidies.
- In **Ethiopia**, the highest-income 20% of the population capture 44% of fuel subsidies, while the lowest-income 20% get less than 9%.

*Source: Rijal 2007*

# 1. Identification

*"The assessment of subsidies and their effects should not just address environmentally harmful effects, but rather take a multi-criteria, holistic approach, which should also include the cost-effectiveness and the social effects of subsidies. This aim for a more comprehensive review process is useful because:*

- *the identification and reform or removal of ineffective and inefficient subsidies, even if not environmental harmful as such, can free up considerable funds which could be used for more pressing environmental needs;*
- *For subsidies that are provided to support environmentally-friendly activities, ensuring that these subsidies are targeted and cost-effective will strengthen their case in the eternal tug-of-war over scarce public resources.*

*Assessments also need to be extended to new, proposed policies in order to prevent further adverse effects on biodiversity and ecosystem services (strategic impact assessments). "*

CBD Paris workshop on incentives, October 2009

# 2. Removal, phase-out, reform

## General success factors

1. Strong leadership and broad support coalition involving key stakeholders
2. Use 'Whole-government' approach
3. Identify relevant interests; design and implement adequate responses
4. Need to design adaptation policies: analyse possible distributional/social impacts of reform policies and implement (offsetting) policies, e.g., compensatory packages, as appropriate
5. Funding for offsetting policies/compensatory packages
   - Removing subsidies also saves money!
6. Improve transparency and enable informed public debate
7. Use political windows of opportunity (e.g. budgetary or economic crises)
8. (…)

# 2. Removal, phase-out, reform

Removal

- Is rare in its pure form but does exist; political windows of opportunity matter

Phase out

- Set out ambitious end points and more cautious but credible time tables
- Allows stakeholders to adapt gradually
- Transitional support with firm sunset clauses

Reform

- re-design programmes to enhance cost-effectiveness and targeting while reducing environmental harm

  Assigning/strengthening (property) rights, rights-based management

  Compensatory measures to mitigate perverse incentives in environmental policies

# 2. Removal, phase-out, reform

## Words of caution

- Reform efforts may not be sufficient, in particular in highly dynamic environments – but this does not necessarily speak against the reform as such.
- A limited environmental recovery does not necessarily indicate ineffective reform policies, but rather a need for more comprehensive assessments of all relevant policies and their interactions, and more comprehensive policy action.
- It is an ongoing exercise!

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# What are positive incentive measures? Concepts

**Direct approaches** - generally involve ‘paying’ relevant actors to achieve biodiversity-friendly outcomes or, conversely, to not achieve biodiversity-harmful outcomes

> Examples: long-term retirement (or set aside) schemes; conservation leases, covenants or easements; schemes providing payments for ecosystem services. Breaks on governmental levies such as taxes, fees or tariffs that grant advantages or exemptions for activities beneficial for conservation and/or sustainable use

**Indirect approaches** - support activities or projects that are not designed exclusively to conserve or promote the sustainable use of biodiversity, but have the effect of contributing to these objectives

> Examples: development or commercialization of biodiversity-based products or services, such as sustainable or eco-tourism, or the marketing of biodiversity-related goods and services, possibly within community co-management (CBNRM)

(CBD Technical Series no. 56)

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# From ecosystem decline to ecosystem incentives

## “Enhanced”

Crops
Livestock
Aquaculture
Carbon sequestration

## “Degraded”

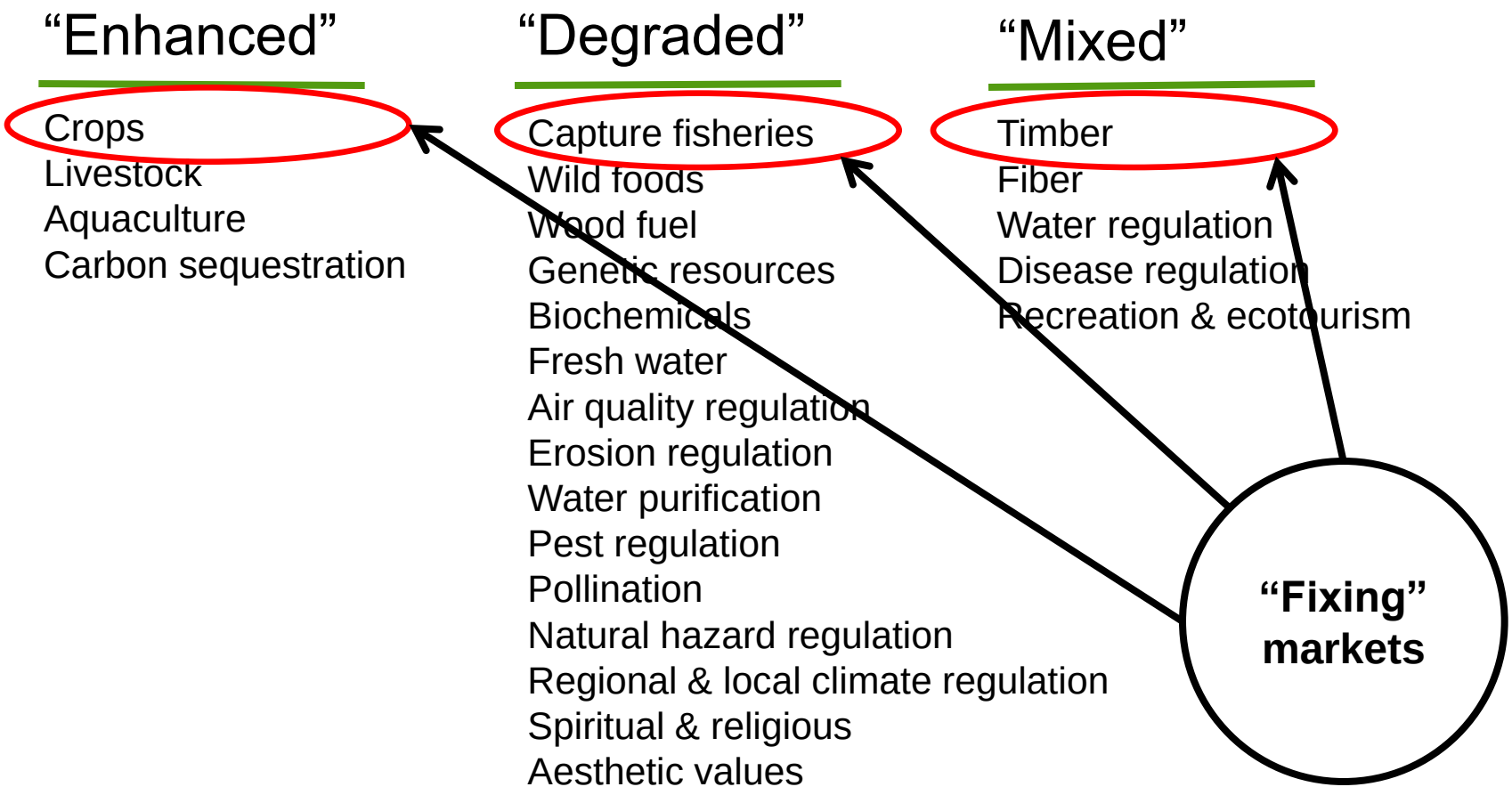
Capture fisheries
Wild foods
Wood fuel
Genetic resources
Biochemicals
Fresh water
Air quality regulation
Erosion regulation
Water purification
Pest regulation
Pollination
Natural hazard regulation
Regional & local climate regulation
Spiritual & religious
Aesthetic values

## “Mixed”

Timber
Fiber
Water regulation
Disease regulation
Recreation & ecotourism

Source: Millennium Ecosystem Assessment, 2005.

# From ecosystem decline to ecosystem incentives …by fixing markets



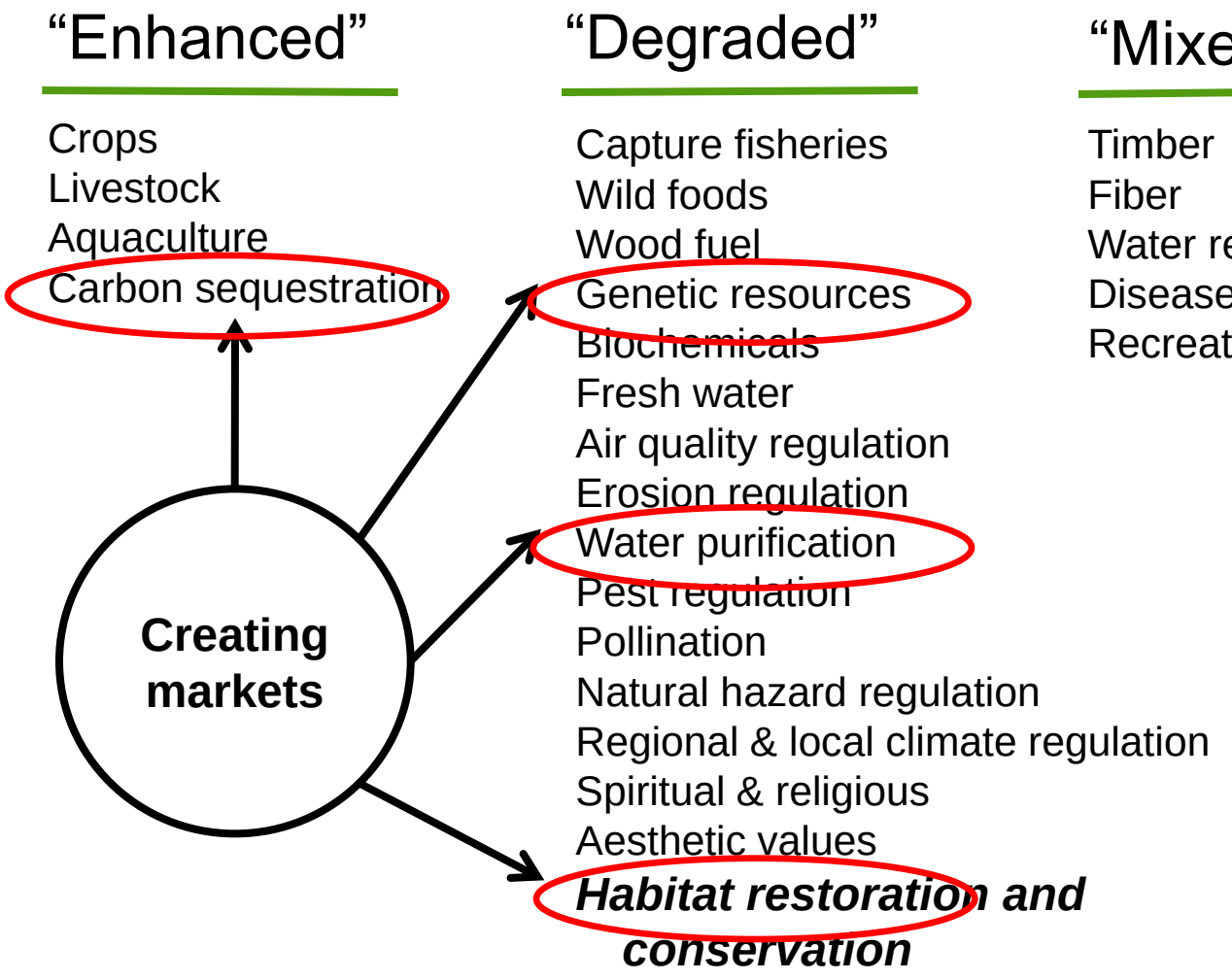
# Fixing markets: ‘green’ products and services

- Global sales of organic food and drink = US$ 60 billion in 2009
- Sales of certified ‘sustainable’ forest products increased four-fold between 2005 and 2007
- The global market for eco-labeled fish products grew by over 50% from 2008 to 2009, to a retail value of US$ 1.5 billion
- Major consumer brand owners and retailers have added ‘ecologically-friendly’ attributes to key product lines:
  - Mars (Rainforest Alliance cocoa)
  - Cadbury (Fairtrade cocoa)
  - Kraft (Rainforest Alliance Kenco coffee)
  - Unilever (Rainforest Alliance PG Tips)

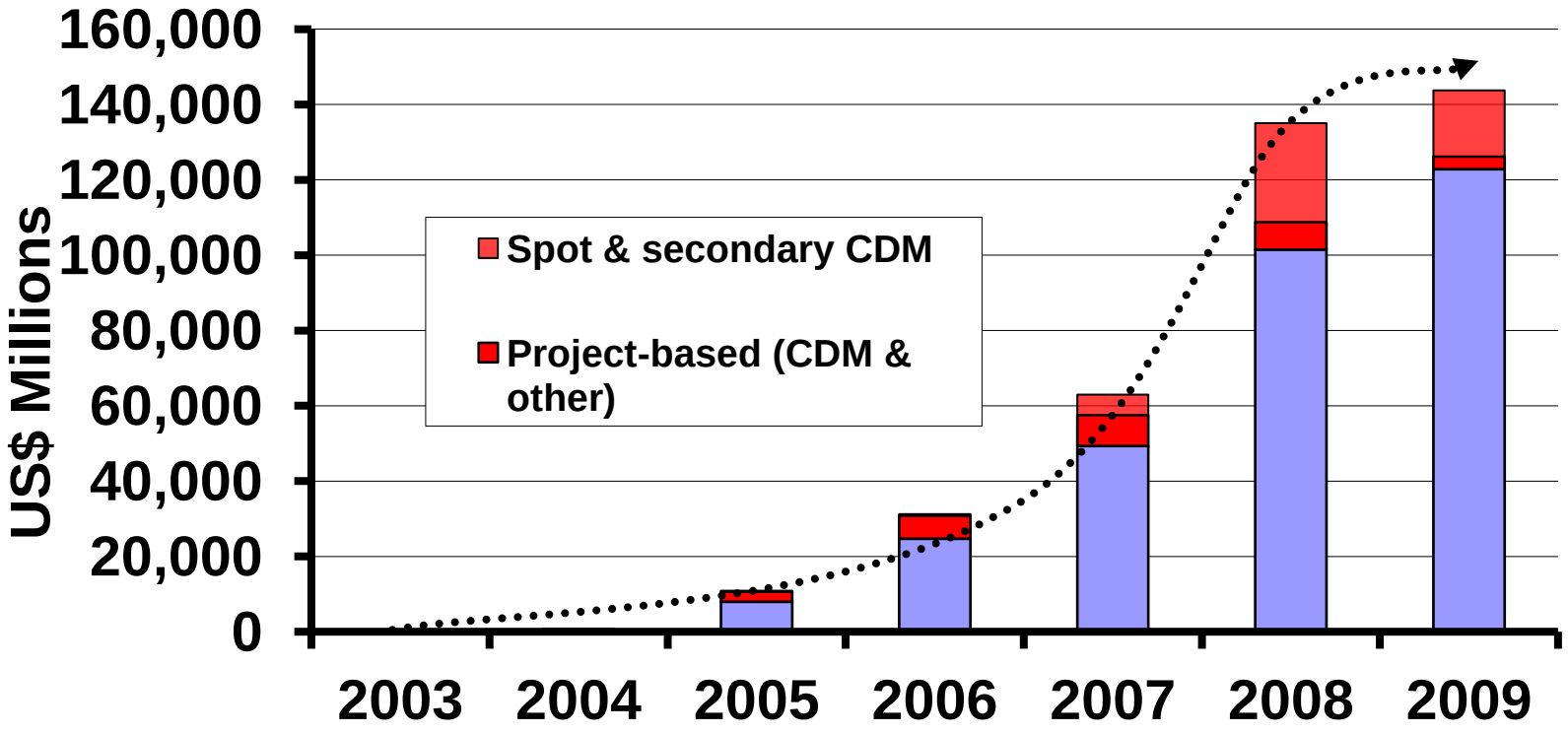




# From ecosystem decline to ecosystem incentives …by creating markets

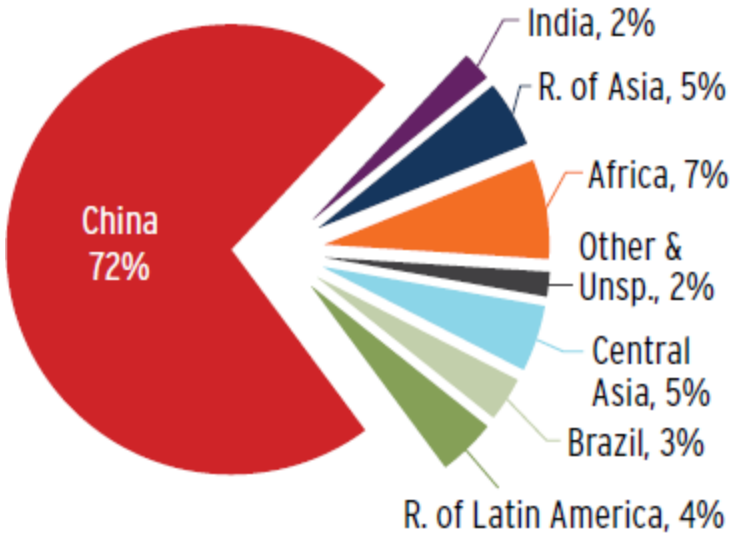


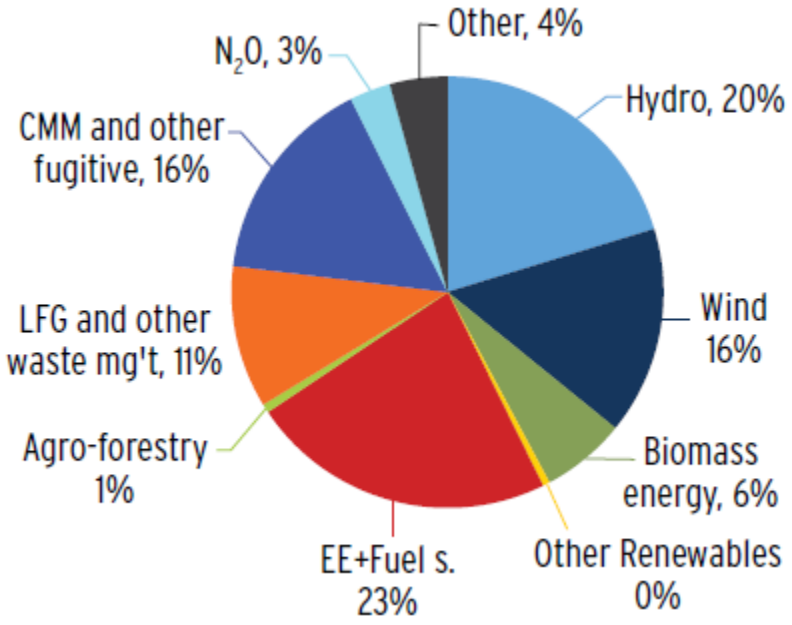
# Creating markets: The case of carbon




**Cumulative 2003-2009: US$307 billion**
**(of which CDM US$78 billion)**

# 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).**

# Other PES schemes

| 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 *et al.*, 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) |

# Incentive measures and poverty: lessons learned

- **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


**More lessons learned in Technical Series no. 56…**

# Changing incentives, changing decisions
# Summing up

| | Ecosystem Damage (Business as usual) | Conservation & Sustainable Use |
|---|---|---|
| **Costs** | Need to **rise**, e.g. through:<br>•Technological limits<br>•Resource taxes/fees<br>•Reporting requirements<br>•Naming and shaming | Need to **fall**, e.g. through:<br>•Tax credits<br>•Facilitated permitting<br>•Lower interest rates |
| **Benefits** | Need to **fall**, e.g. through:<br>•Consumer boycotts<br>•Trade barriers (where allowed) | Need to **rise**, e.g. through:<br>•Consumer choice<br>•Payment for ecosystem services<br>•Market creation<br>•Recognition / award schemes |

# Target 3 and the NBSAP: Options

## Addressing harmful incentives:

- ✓ Prioritized assessment and/or prioritized removal, phase out, or reform of any 'obvious' candidates for such activities, for instance policies and/or programmes which are suspected to be both environmentally harmful and cost-ineffective, or environmentally harmful and also socially inequitable.
- ✓ Undertake transparent assessments of programmes and policies to examine their effectiveness in relation to stated objectives, their efficiency, and their social and environmental impacts
- ✓ Develop, based on the assessments above, prioritized plans of action for removal, phase out or reform of incentives harmful for biodiversity by 2020
- ✓ NBSAPs could include: a timetable for the preparation of assessments, for the development of action plans, and for implementing priority activities for the removal, phase out, or reform of harmful incentives.

# Target 3 and the NBSAP: Options

## Promoting positive incentives:

- ✓ Assess existing positive incentives for biodiversity conservation and/or sustainable use in your country: effectiveness, distributional consequences, adverse effects etc. Identify any opportunities to broaden the measure.
- ✓ Develop criteria for identifying high potential or high priority for introducing positive incentives. Existing threats to biodiversity? (Economic) values of biodiversity? Social development concerns? Dissatisfaction with existing policy approaches (e.g., regulations that seem to be ineffective)? All of the above?
- ✓ Based on the above, identify critical gaps or opportunities to introduce new positive incentive measures.
- ✓ Consider good practices and lessons learned from elsewhere, for inspiration and emulation and/or adaptation as appropriate.

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*

Convention on Biological Diversity

UNEP