Earmarked Taxes for Conservation

- **CBD Assessment**: estimates that spending on conservation < 1% of national government budgets;

- But some good examples of positive use of taxes:

  - **USA**: 5.5% of excise tax on hunting and fishing equipment goes to PAs (USD 150 mn);

  - **Namibia**: part of commercial fish catch tax goes to PAs;

  - **Costa-Rica**: part of government fuel tax goes to PAs.

Taxes on Finance Market Transactions

Taxes on Finance Market Transactions (Tobin Taxes) in Spain alone could generate:

- Tax on short-term capital gains (between 0.18 and 1.98 billion euro/year);
- Tax on banks (between 2.82 and 5.12 billion euro/year);
- Tax on financial transactions (between 1.6 and 6.3 billion euro/year).

Source: Stiglitz, Joseph et al. (2010) **TAXING FINANCIAL SPECULATION: SOME PROPOSALS FOR THE G-20**. IDEAS Foundation http://www.oekosozial.at/uploads/tx_osfopage/fundacion_ideas_Informe_ingles_mayo_2010.pdf

Debt for Nature Swaps (DNS)

- Majority of DNS were mediated by large NGOs;
- Majority of DNS are in Latin America & Caribbean;
- US Government, France, Switzerland and Germany are main "forgivers" [e.g. in 2008, France forgave a USD 20 mn debt to Madagascar in exchange for a equivalent replenishment of Madagascar PA Fund by government]
- remains a commercial deal in which debtor tries to bargain for largest discount of its debt – which does not always coincide with motives of the debt "forgiving" Government.
- explains why DNS remain rare.

Subsidies

Removal of (perverse) subsidies:

- Agricultural subsidies in OECD countries averaged US$261 billion/year in 2006-8,
- global fisheries subsidies are US$15-35 billion,
- energy subsidies around US$500 billion per year worldwide,
- transport subsidies US$238-306 billion/year, and
- water subsidies US$67 billion.

A portion of these subsidies re-directed could provide significant funding for biodiversity.

Conservation Trust Funds

- ~55 Conservation Trust Funds globally (USD 810 mn in capital);
- types: endowment, sinking, revolving (rare);
- largest – $89 mn, smallest $1.4 mn;
- 74% in LAC, 10% in Asia; few in Europe;
- pay for salaries, ecological monitoring, and recurrent costs, not investment needs;
- difficult to establish;
- high overhead;
- reluctance of donors to capitalize the endowment;
- not a 100% solution.

Conservation Trust Funds

- Bangladesh and US government have established Tropical Forest Conservation Fund (TFCF) for conservation, restoration and afforestation of tropical forest.

- In Chile, Agricultural Research Fund (FIA), National Fund for Technology and Production (FONTEC), Fisheries Research Fund (FIP), CONAMA Environmental Fund (FAC), Fund of the Americas, SAG Fund, National Fund for Regional Development (FNDR), all provide financial support to biodiversity projects.

- In United Kingdom, the Heritage Lottery Fund distributes a share of the money raised by the National Lottery for Good Causes, and raised over £125 million for biodiversity projects in the past ten years.

Micronesia Conservation Trust (MCN)

Established in 2002;

By end 2008, MCT:

- had raised ~US$ 5 million from 11 donors (US$ 3.4 million in endowment funds and US$ 1.6 million in sinking funds); and
- had disbursed around US$ 2 million in competitive project grants to local conservation organisations, with another US$ 800,000 to be granted in 2009;

Objective: supporting biodiversity conservation and related sustainable development for the people of the Federated States of Micronesia (FSM) by delivering long-term sustained funding.

Micronesia Conservation Trust (MCN)

CTFs improve conservation finance by:

(i) "**pooling**" international financial resources from a range of donors before "**aliginment**" with biodiversity conservation priorities and agreed strategies of recipient countries;

(ii) reducing **duplication** and **overlap** of conservation project funding;

(iii) by enhancing the **efficiency** and **accountabilit**y of grant-making and grant-spending;

(iv) **reducing the financial** and **technical burden associated** with competitive fundraising by (small) effective recipient organisations, particularly for small organisations lacking capacity do not include access international donor funds; and

(v) "increasing **transparency** and **reducing corruption**, by the public disclosure of all CTF grants, operating costs and investments, and throu supervision by **independent** public-private governing boards.

Subsidies

Variable	Economic value (US$ trillions, $10^{12}$$)
Global GDP 2011	70.01
Global Gross External Debt	61.50
Gross External Debt Euro Area	15.45
Gross External Debt USA	14.96
Gross External Debt People's Republic of China	0.94
Foreign-exchange reserves People's Republic of China Dec 2011	3.18
Foreign-exchange reserves USA Feb 2012	0.149
Foreign-exchange reserves Euro Area Jan 2012	0.925
Annual global foreign exchange market turnover	1020
UN Millennium Development Goals Annual Cost	0.19
IPCC SRREN Baseline Scenario	
Annual mean investment in deploying renewable energies	0.14
Cumulative renewable energy investments (2011–2030)	2.85
IPCC SRREN 450 ppm Stabilization Scenario	
Annual mean investment in deploying renewable energies	0.61
Cumulative renewable energy investments 2011–2030	12.28
Global annual cost of fossil-fuel consumption subsidies	0.31
Annual revenue from a Global Financial Transaction Tax (0.05%)	0.64–1.83
Annual revenue from a tax on foreign exchange (0.001%)	0.007
Increased emission of IMF Special Drawing Rights	0.1–0.3
Carbon tax (1US $/ton) in the OECD countries	0.001

PES

- "**voluntary** and **conditional** contracts in which a well-defined environmental service is purchased by a willing buyer who then secures provision of that service from a willing seller";

- markets in ecosystem services require the narrowing down of complex ecosystem processes into identifiable and measurable services, and the reductionism of (monetary) valuation of those services;

- national PES programmes conceived as market-based instruments, in practice became hybrids of market-like mechanisms, state regulation, and subsidies.

Conservation Agency Policy:

"Conserve biodiversity as a community choice, by building agree
provide communities with benefits and capacity building in excha
delivering effective conservation of high priority areas

Biodiversity offsets

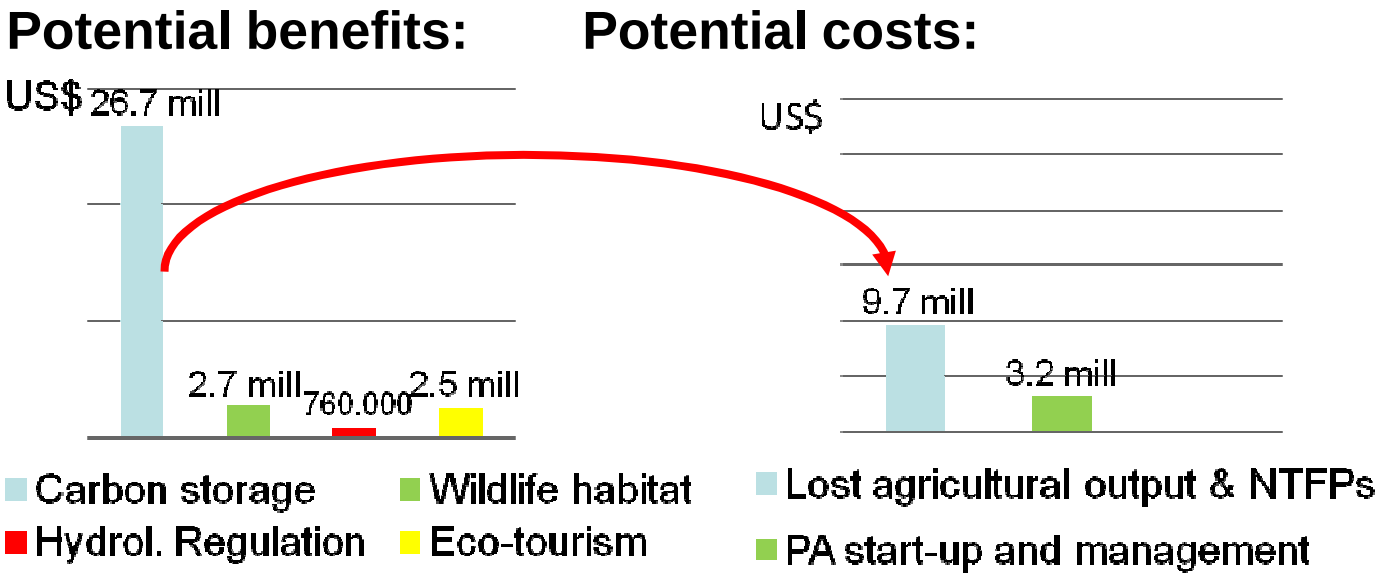
- Conservation action outside development site designed to compensate for UNAVOIDABLE adverse biodiversity impacts caused by land/resource use (mining, roads, urban infrastructure, agriculture).
- Should not be applied if impact is avoidable.
- US, Canada, Brazil, European Union, Australia, Russia and Uzbekistan.
- Prerequisite 1 – law limiting development at certain habitats.
- Prerequisite 2 – memorandum on roles and responsibilities among Government, land-developer, NGOs, mediators in the off-set.
- Sequence for establishing a biodiversity offset:
  - No-net-loss assessment and design of an equivalence for the offset.
  - Select location suited for the offset's equivalence.
  - Agree among contractual parties on the duration of the offsetting obligations and budget.
  - Develop and implement the conservation plan.
  - Validate the results, establish regular monitoring and/or a protected area to enforce permanance.
- Example of success: US wetland banking involves 135 private commercial b[illegible] over USD 370 million in BO transactions per year.

Payments for Ecosystem Services (PES)

- Written commercial contracts between consumers and suppliers of a service.
- Menu of "theoretically tradable" ecosystem services:
  - provision of clean drinking water, food and pharmaceutical products;
  - regulating climate and diseases, decomposition of waste; retention of floods, erosion control, support to nutrient cycles,
  - crop pollination; recreational benefits / tourism potential.
- Services that practically reached commercialization:
  - carbon sequestration (300 markets by WWF assessment),
  - watershed protection (60 markets),
  - tourism.
- Sequence of PES contract development:
  - Document ecological services
  - Assess their economic value for groups inside and outside of PA
  - Agree on a fee to be charged and where it is to be channeled – must stay with PA!
  - Enforce fee collection.

Aligning economic growth, biodiversity and development

- Example: Rio Tinto mine in Madagascar
- Corporate goal: Net Positive Impact (NPI) on biodiversity
- Support for conservation project (60,000 ha. lowland forest)



- **Benefit-sharing with communities (based on REDD revenues)**

Source: Olsen & Anstee (2010)

PES Agreement
Cardomon Mountains, Cambodia

Table 1. Summary of Conservation Agreements in the Study Communes

Commune (name and size)	Conservation Services	Annual payment	Sanctions
Trei 113 families	- Protect dragon fish spawning pools; no dragon fish harvesting - Assist FA to combat illegal hunting and wildlife trade - No forest clearing	**US$ 17,050** incl. purchase of mechanical tillers; wages for community patrolling; and support for school teacher	Sanctions depend on number of transgressions. If ten transgressions occur the agreement is suspended.
Svay 76 families	- No forest clearing for farms - Protect crocodile and its habitat along the river - Assist FA to combat illegal hunting and wildlife trade	**US$ 8,788** incl. mechanical tillers for paddy restoration; wages for community patrolling; support for school teacher	Sanctions depend on number of transgressions. If ten transgressions occur the agreement is suspended.

PES Agreement
Cardomon Mountains, Cambodia

Calculation for the avoided deforestation components was based on the value of expected rice yields from newly cleared land.

For example, in Svay commune, 4 annual clearing due to shifting agriculture by sixty-five families was estimated to amount to 20 ha per year.

On the basis of average rice yields of 1.5 tonnes per ha, normally achieved on recently opened plots, the cost of not clearing forest was estimated to be 30 tonnes of rice per year, or US$ 3,000 given local market prices.

More problematic, however, was the use of Commune Councils as the 'official' representatives of local communities, who could sign-off on the PES contracts.

These government bodies, created under the national decentralization and democratization programme in Cambodia in 2002, are heavily influenced by party politics and powerful local elites

PES Agreement
Cardomon Mountains, Cambodia

For example, recent field visits (2010–11) indicate that the committees and Commune Councils are now largely dominated by elites, who in spite of the PES contracts are able to continue their own land-clearing activities unhindered.

CAMPFIRE as a PES

Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) was a community-based natural resource management programme in which Rural District Councils, on behalf of communities on communal land, were **granted the authority to market access to wildlife** in their district to safari operators.

These in turn sell **hunting and photographic safaris** to mostly foreign sport hunters and eco-tourists. The District Councils pay the communities a dividend according to an agreed formula. In practice, there have been some underpayments and frequent delays.

During **1989–2001**, CAMPFIRE generated over **US$20 million** of transfers to the participating communities**, 89% of which came from sport hunting**. The scale of benefits varied greatly across districts, wards and households. **Twelve of the 37 districts with authority to market wildlife produced 97% of all CAMPFIRE revenues**, reflecting the variability in wildlife resources and local institutional arrangements.

Financing National Biodiversity Strategy and Action Plans – group exercise on financing

1. Make your best estimate of the total cost of fully implementing your current NBSAP.

1. Estimate the extent to which this has ACTUALLY been financed and create a pie chart showing how much funding has come from where. Think carefully about the time frame.

1. Now, make your best estimate of how much funding a fully "Aichi-compliant" transformed NBSAP would require – i.e. to fully implement the Strategic Plan for Biodiversity 2011-2020 at national level.

1. Using the same categories used in 2 above as above, estimate to what extent the which the revised NBSAP could be funded, and what the unmet needs might be. Create a pie-chart to visualise the funding gap.