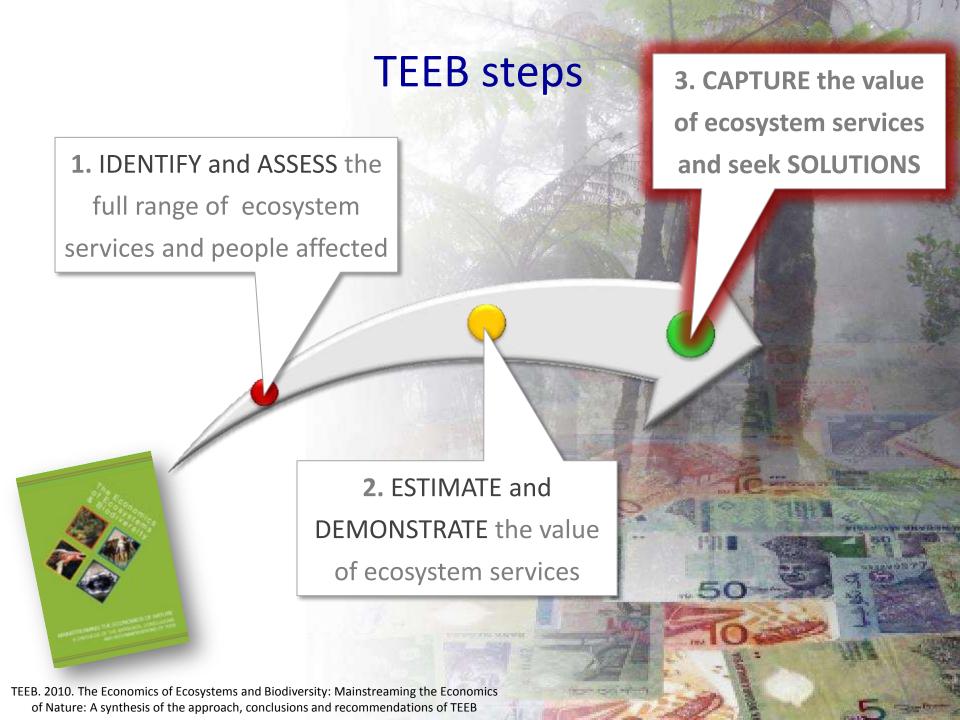


sustainable financing mechanisms for ecosystem conservation





ecosystem
management
costs and
financing needs

#### management costs and financing needs

#### Core Funding

expenditures that are necessary to maintain the institutions necessary for forest conservation

primarily government but may also be NGOs, private & civil society

# Operational Funding

expenditures that are necessary to implement agreed conservation plans and actions

government, NGOs, private & civil society organisations

# Opportunity Costs

financial and economic incentives for sustainable development, land and resource use

local land & resource users, businesses and industries

funding gaps

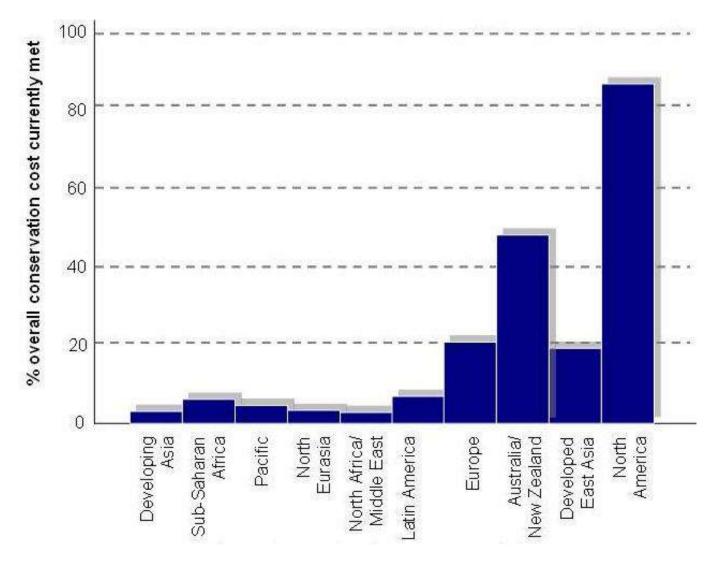
 across the world, most ecosystem managers have insufficient budgets to allow for effective conservation and management

 in many countries, budgets barely cover even basic staffing

 for example, it is estimated that an additional \$12-13 billion a year is required to manage an effective and representative system of PAs<sup>1</sup>



#### PA funding gaps - % conservation costs met



Balmford, A., J.J. Gaston, S. Blyth, A. Simon, and V. Kapos. 2003. "Global Variation in Terrestrial Conservation Costs, Conservation Benefits, and Unmet Conservation Needs," PNAS 100(3): 1046–50.



# sustainable financing mechanisms

### conventional fees & charges

New Zealand Department of
Conservation not permitted to
charge park entry fees, but
manages to fund 15% of its
operations through other charges –
concessions for tourism and film
industry, provision of trails and
other hiking facilities, farming fees.



# novel fees & charges

Bioprospecting agreement between Merck pharmaceuticals and National Biodiversity Institute of Costa Rica (INBio) dates to early 1990s.

This allows Merck access to biological resources and genetic materials. In return, INBio receives fees and royalties, as well as training and technical capacity-building support.



#### fiscal instruments

in South Africa, legal framework allows private land to be contracted as statutory conservation areas.

In return, landholders can benefit from income tax reductions for management expenses, deductions from income tax on value of land, and property rates exclusions.



#### fiscal transfers

10-11% excise tax on hunting and angling equipment and 3% tax on sport fish supplies used to fund USA Federal Wildlife Program.

10% of California's tobacco tax revenues earmarked for parks and wildlife habitat.

Missouri tax of 0.05% on sales of personal property and retail services allocated to the Department of Conservation.

Nebraska Environmental Trust Act and Great Outdoor Colorado programme funded from proceeds from the State lottery.



### green financing

Malaysia's Green Technology
Financing Scheme (GTFS) established by
government to boost investment,
production and utilisation of green
technology-based products.

Enables companies which are producers and users of green technology to obtain soft loans, with the government subsidising 2% of the interest rate and providing a guarantee of 60% on the amount of financing.

#### local credit and loans

Tree bank programme of Thailand's Bank of Agriculture and Agricultural Cooperatives. Aims to encourage tree planting in rural areas, especially by cash-poor farmers.

Entitles farmers to pledge or mortgage their trees with the BAAC, which then grants loans as start-up capital. Only when the mature trees are cut and sold must the tree farmers pay back the loans, plus subsidised interest.



# community benefit-sharing

In Pakistan, the Community-Based Trophy Hunting programme aims to strengthen local incentives for the conservation of large mammals.

A 20% licence fee is paid to the Provincial Government, and a 80% trophy fee is given to the community where the hunt took place.



# debt-for-nature swaps

Two debt swaps in Jamaica – one allowing US Government interest payments to go to conservation, other retiring commercial debt owed by Jamaica.

Used to capitalise the Jamaica
Conservation and Development
Trust, supporting the then newlyestablished National Parks
System.



#### trust funds

Belize Protected Areas
Conservation Trust (PACT)
financed from conservation fee of
\$3.75 charged to departing
foreign tourists, 20% of park entry
fees, concession fees, permit and
license fees, and cruise ship
passenger fees.

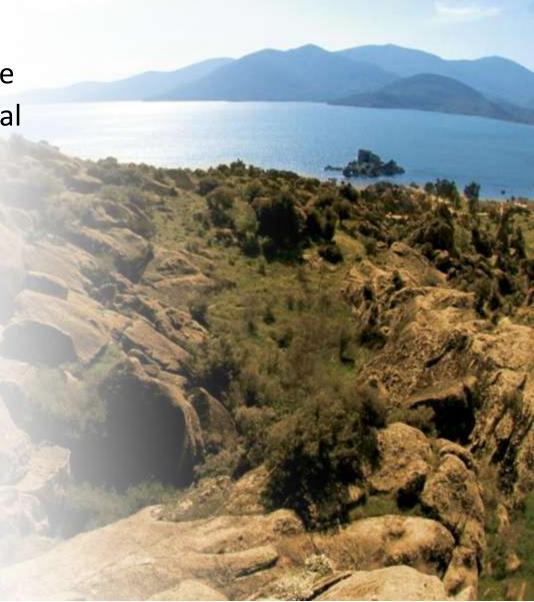
By law, 5% of PACT revenues managed as endowment fund to generate interest income.



# biodiversity offsets

Where it has not been possible to avoid adverse environmental impacts, the Baku-Tbilisi-Ceyhan (BTC) oil pipeline is funding biodiversity offsets.

Approximately \$2.5 million is being used to fund projects in forests, national parks and nature reserves in Azerbaijan, Georgia and Turkey.



## cost-sharing & commercial concessions

All tourism and commercial enterprises in South Africa National Parks are now run by the private sector under leases, charging market prices.

Private investment in new facilities is already estimated at over US\$35 million, and the total income to SANParks over 20 years is forecast at more than US\$ 90 million.



### corporate sponsorship

The international bank HSBC has funded the establishment of the first protected mountain area in the United Arab Emirates: Fujairah's Wadi Wurayah.

Funding was provided over three years to and establish a team of conservation rangers from the local tribes, carry out biodiversity and habitat surveys, and develop a Protected Area management plan.





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payments for ecosystem services

#### Costa Rica hydropower

Contract between La Esperanza
Hydropower Project and the
Monteverde Conservation
League.

Payment was gradually increased through the first five years of the contract from \$3 to \$10/ha/yr, and from the fifth year onwards \$10/ha/yr is used as a reference value in a formula that factors in power produced and the tariff at which the power is sold.



#### **Ecuador water supplies**

Around 60% of the city's water supply comes from nearby Cajas National Park. Water users in City of Cuenca pay a surcharge on their bills (\$0.05/m³) to fund Municipal Environment Unit to protect watershed – more than \$1 million a year.

Covers administrative and running costs of Unit, also used to purchase lands in the watershed to be set aside for protection and to finance watershed management projects.

Philippines energy sector

For electricity producers, is US¢ 0.02/kWh of sales, 12.5%-25% of which goes to fund in Department of Energy. For electricity consumers, US¢ 0.006 /kWh is collected from monthly bills, going to fund in National Power Corporation.

Money spent on livelihood development, reforestation and watershed rehabilitation

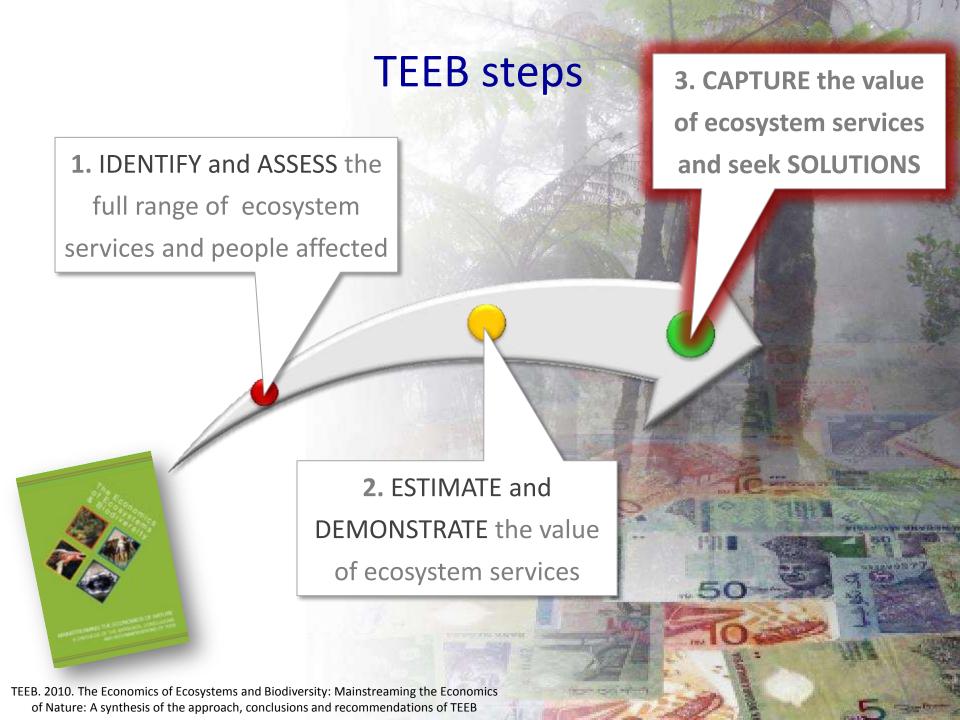


#### voluntary carbon payments in China

Gaoligongshan Nature Reserve Buffer Zone is being regenerated with native forest.

Uses local labour and forestry farm plantation investment.

Villagers will own income from forest products and forestry farm will own carbon credits sold on the international voluntary market.



## key issues for sustainable financing

- generating *more funds* is important
- but it is not the only financing issue
- need to think about how and to whom the funds are allocated, administered and used
- often need to diversify funding portfolio
- think about reinvesting and retaining funds
- typically need to improve financial planning and costing
- and also think about people's financial incentives and investment stimuli



Thank You for your attention