



ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT



Payments for Ecosystem Services:

The case of forests

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Forest and ecosystem services

- Forests provide *multiple* ecosystem services
 - biodiversity, carbon sequestration, watershed services etc
- Estimated aggregate loss of biodiversity and ecosystem services benefits associated with global loss of forests is between USD 2-5 trillion per year (TEEB, 2009)
- Global trends in forest cover have been on the decline (i.e. between 1990-2010) (FAO, 2010)
 - Deforestation rates slowing down but primary forest loss projected to continue (OECD Environmental Outlook, forthcoming)

PES: Introduction

- PES provide direct payments to landowners and users to support conservation and provision of ecosystem services
 - Potentially large gains in cost-efficiency from PES compared to indirect payments or other regulatory approaches (Engel et al. 2008)
 - National scale examples: Canada, China, Costa Rica, Estonia, Mexico, South Africa, US, UK
 - Many more local scale PES programmes
 - Large proliferation of PES... More than **300 programmes** to date
- 5 national PES programmes alone estimated to channel over USD 6 billion per year

Cost-Effective PES

OECD (2010), *Paying for Biodiversity: Enhancing the Cost-Effectiveness of Payments for Ecosystem Services*

Aim: Identify good practice in the design and implementation of PES programmes and how best to enhance their cost-effectiveness

Scope: Combining theory and case studies across developed and developing countries

Context: Continued biodiversity loss. Widely acknowledged that CBD Biodiversity 2010 target has not been met

➤ Urgent need for both:

- 1) Greater application of incentives, including PES, to address biodiversity and ecosystem services
- 2) More efficient use of available finance in existing programmes



Key PES design elements

- Clearly identify PES goals and objectives
- Remove perverse incentives - coherent PES policy requires other prevalent market distortions to be removed
- Clearly define and enforce property rights
- Ensure sufficient and long-term financing for PES
- Target and differentiate payments (via spatially explicit CBA) to enhance cost-effectiveness -- rather than uniform payments
- Additionality, leakage and permanence should be addressed
- Performance-based payments are preferable to effort-based payments
- Monitoring, reporting and performance evaluation is key

Efficient Targeting of PES

- **Benefits**
 - Identify areas with high ecosystem service benefits
 - Valuation, benefit indices, scoring, spatial mapping
- **Threat**
 - Identify areas with high risk of ecosystem service loss (additionality)
- **Costs**
 - Identify areas with low opportunity costs



Tasmanian Forest Conservation Fund

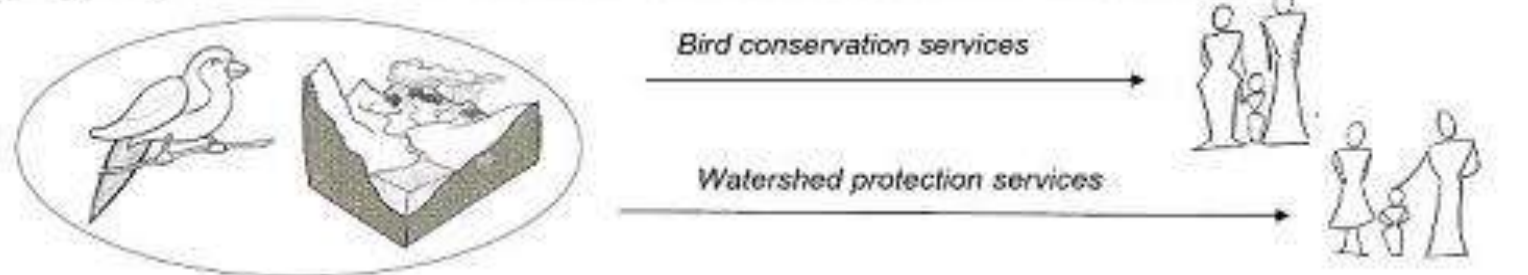
- **Goal:** protect up to 45 600 ha of forest on private land (mainly old growth) via voluntary market-based measures
 - **PES mechanisms:** reverse auction, differentiated take-it-or-leave-it offers and direct negotiation – total FCF budget AUD 50 million
 - Robust **metric** to target benefits: Conservation Value Index (CVI)
 - Calculated the CVI based on each proposal to enable ranking based on value for money criteria (AUD/CVI)
 - Reverse auctions to further enhance cost-effectiveness
- Cost-efficiency gains of 52% compared to a first-come first-served basis

Joint ecosystem service provision

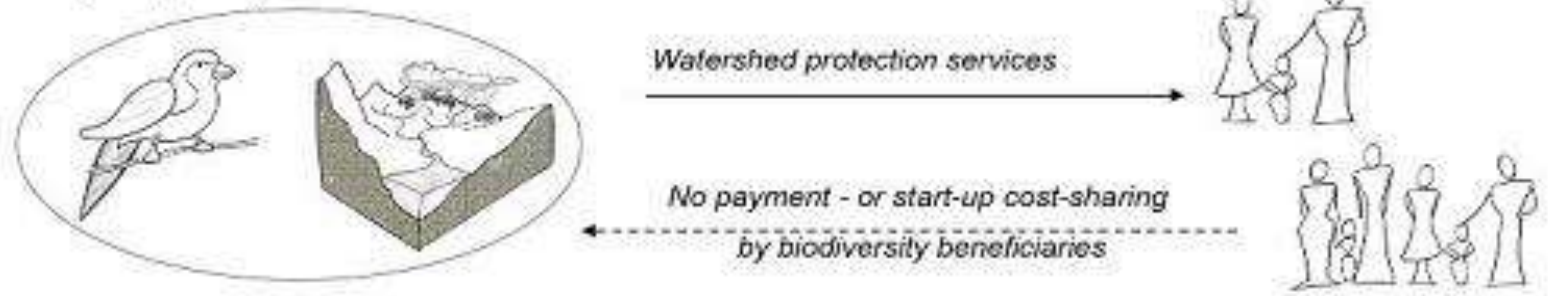
(1) **Bundling:** A package of services from the same land area is sold to the same single buyer.



(2) **Layering:** A bundle of services from the same land area is sold to *different* buyers.

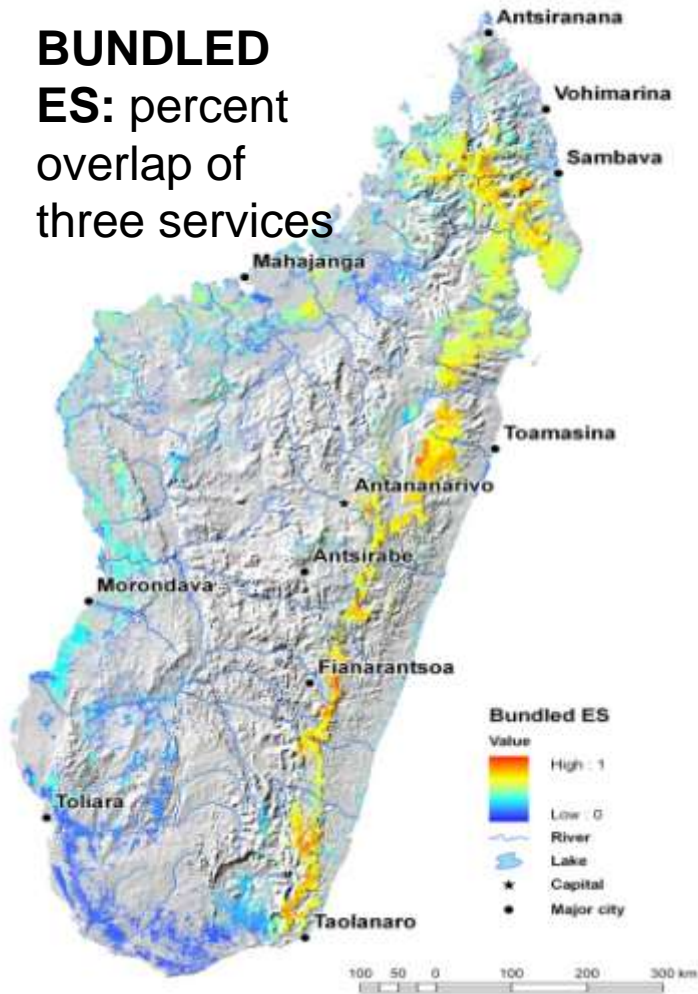


(3) **Piggy backing:** One service is sold as an umbrella service and biodiversity is a "free-rider" or only temporary remunerated.

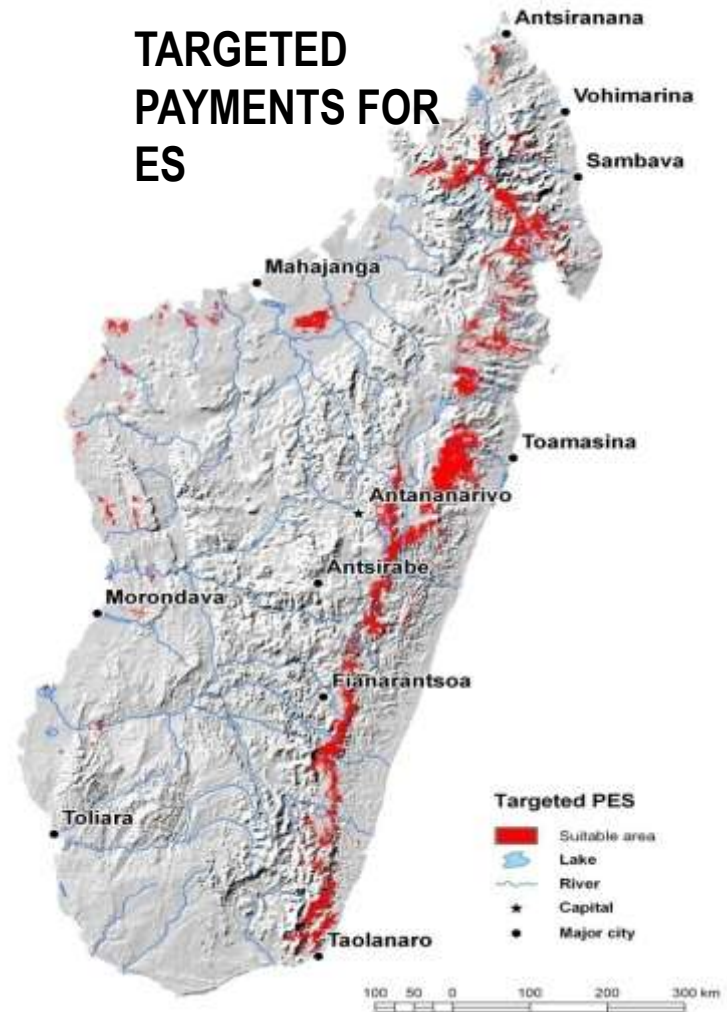


Targeting payments in Madagascar

BUNDLED
ES: percent
overlap of
three services



TARGETED
PAYMENTS FOR
ES



Thank you!

For further information on OECD work on the economics and policy of biodiversity, visit:

www.oecd.org/env/biodiversity

Key policy areas:

- ❖ Biodiversity Indicators, Valuation and Assessment
 - ❖ Economic Instruments, Incentives and Markets
 - ❖ Biodiversity Finance, Development and Distributional Issues
- *Forthcoming work: Metrics and indicators applied in economic instruments for biodiversity; Green Growth and Biodiversity; Biodiversity in the OECD Environmental Outlook to 2050; and more...*

Also visit: **www.oecd.org/cc/redd**