SCALING UP FINANCE FOR BIODIVERSITY… AND THE ROLE OF BIODIVERSITY OFFSETS

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Why is finance for biodiversity important?

- Declining biodiversity trends at global level
  - *OECD Environmental Outlook to 2050* projects a further 10% loss by 2050 under business as usual. Yet biodiversity and ecosystem service benefits are high

- Adverse impacts to environment, health, economic growth... human well-being
  - Will need to significantly scale up biodiversity outcomes...

CBD refers to six “innovative financial mechanisms”:

- Environmental fiscal reform
- Payments for ecosystem services
- Biodiversity offsets
- Markets for green products
- Biodiversity in climate change funding
- Biodiversity in international development finance
Scaling-up Finance Mechanisms for Biodiversity

Questions examined

• What are these mechanisms, their purpose and applicability?

• How much finance have they mobilised and what opportunities are there to scale-up?

• What are the key design and implementation issues to help ensure:
  – environmental effectiveness;
  – cost effectiveness; and
  – distributional equity

  ➢ i.e. **environmental** and **social safeguards**?
### How do the finance mechanisms compare?

<table>
<thead>
<tr>
<th>Finance mechanism</th>
<th>Scope of finance</th>
<th>Source of finance</th>
<th>Direct vs. indirect finance</th>
<th>Impacts on drivers</th>
<th>Beneficiary vs. polluter pays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Fiscal Reform</td>
<td>Local National</td>
<td>Private (&amp; public)</td>
<td>Direct</td>
<td>Yes - direct</td>
<td>Polluter</td>
</tr>
<tr>
<td>Payments for Ecosystem Services</td>
<td>Local National</td>
<td>Private &amp; public</td>
<td>Direct</td>
<td>Yes - direct</td>
<td>Beneficiary</td>
</tr>
<tr>
<td>Biodiversity offsets</td>
<td>Local National</td>
<td>Private (&amp; public)</td>
<td>Direct &amp; indirect</td>
<td>Yes - direct</td>
<td>Polluter</td>
</tr>
<tr>
<td>Markets for green products</td>
<td>Local National</td>
<td>Public</td>
<td>Indirect</td>
<td>Yes - indirect</td>
<td>N/A</td>
</tr>
<tr>
<td>Biodiversity in climate change funding</td>
<td>Local National</td>
<td>Public &amp; private</td>
<td>Indirect</td>
<td>Depends</td>
<td>Polluter</td>
</tr>
<tr>
<td>BD in int’l development finance</td>
<td>International</td>
<td>Public (&amp; private)</td>
<td>Indirect</td>
<td>Depends</td>
<td>N/A</td>
</tr>
</tbody>
</table>
## How much finance have they mobilised?

<table>
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<tr>
<th>Finance mechanism</th>
<th>Finance mobilised (Handle with care - complete data not available!)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EFR</strong></td>
<td>Total revenue from environmentally related taxes in OECD countries in 2010: slightly below USD 700 billion. But taxes on “other” (i.e. pollution and resources) small fraction of this</td>
</tr>
<tr>
<td><strong>Payments for Ecosystem Services</strong></td>
<td>5 national programmes alone channel &gt; USD 6 billion p.a. (OECD, 2010) Payments for watershed services &gt; USD 9 billion in 2008 (Parker and Cranford, 2010) ...More than 300 PES programmes worldwide</td>
</tr>
<tr>
<td><strong>Biodiversity offsets</strong></td>
<td>USD 2.4-4 billion in 2011 (Madsen et al, 2011) ~ 45 programmes worldwide in 2011; more than 90 in 2014</td>
</tr>
<tr>
<td><strong>Markets for green products</strong></td>
<td>N/A. Green commodity markets on the rise - some fetch price premiums</td>
</tr>
<tr>
<td><strong>Biodiversity in climate change funding</strong></td>
<td>Estimated total climate change finance USD 70-120 billion in 2009-2010 (north to south flows) (Clapp et al, 2011); Biodiversity related climate finance may approximate USD 8 billion</td>
</tr>
<tr>
<td><strong>BD in int’l development finance</strong></td>
<td>Biodiversity related ODA (development finance) estimated at USD 6.1 billion per year over 2010-2012 (OECD DAC, 2014)</td>
</tr>
</tbody>
</table>
Revenues from environmentally related taxes in per cent of GDP, 2011

Design and implementation issues - some examples

• Determining business-as-usual **baselines** is important for many of these mechanisms (e.g. PES, biodiversity offsets, biodiversity in climate change funding).

• **Prioritise/target finance** to areas with high biodiversity benefits, high risk of loss, low opportunity costs.
  
  e.g. Targeting payments in the Forest Conservation Fund programme in Tasmania, Australia led to 50% increase in cost-effectiveness i.e. greater biodiversity benefits given a fixed budget.

• Robust **monitoring, reporting and verification...** to evaluate programmes, assess progress, and improve over time.
  
  > Biodiversity related ODA can play a key role.
Examples of strengths and challenges...  

<table>
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<tr>
<th>Finance mechanism</th>
<th>Benefits</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Fiscal Reform</td>
<td>Least-cost, generates revenue, polluter pays (incl. private sector), impact on drivers of loss</td>
<td>Political palatability. Enabling conditions include established tax system capable of levying, collecting, redistributing revenue</td>
</tr>
<tr>
<td>Payments for Ecosystem Services</td>
<td>Can be least cost, direct signal and impact on drivers of loss</td>
<td>Rigorous MRV especially important</td>
</tr>
<tr>
<td>Biodiversity offsets</td>
<td>Can be least cost, can generate revenue, polluter pays (incl. private sector), impact on drivers of loss</td>
<td>Rigorous MRV especially important</td>
</tr>
<tr>
<td>Markets for green products</td>
<td>Increases information to consumers</td>
<td>Market saturation. Standards needed</td>
</tr>
<tr>
<td>Biodiversity in climate change funding</td>
<td>Co-benefits</td>
<td>Rigorous MRV especially important</td>
</tr>
<tr>
<td>BD in int’l development finance</td>
<td>Co-benefits. Plays important role for capacity-building, enabling conditions...</td>
<td>Ensuring effectiveness and that biodiversity priorities are addressed</td>
</tr>
</tbody>
</table>
What are they? Biodiversity offsets are measurable conservation outcomes that result from actions designed to compensate for significant, residual adverse impacts to biodiversity from development projects. They are intended to be implemented only after reasonable steps have been taken to avoid and minimise biodiversity loss at a development site.

- Today, 56 countries have laws or policies in place that specifically require biodiversity offsets or some form of compensatory conservation for particular sets of impacts
- About 97 programmes operating worldwide and 15 programmes under different stages of development

No Net Loss and the Mitigation Hierarchy

Measured biodiversity loss under the reference scenario

Biodiversity Loss at the Project Site

Measured biodiversity loss avoided relative to the reference scenario

Avoid

Biodiversity Loss at the Project Site

Measured biodiversity loss minimised relative to the reference scenario

Minimise

Biodiversity Loss at the Project Site

Measured residual biodiversity loss is defined after all avoidance, minimisation and restoration actions are quantified

Avoid

Biodiversity Offset

Restore & Rehabilitation

Biodiversity Offset

Restore & Rehabilitation

Biodiversity Offset

Restore & Rehabilitation

Biodiversity Offset

Biodiversity Offset is equivalent to the residual biodiversity loss at the development site
3 types of biodiversity offsets in practice

**One-off offsets:** Once (predicted) adverse impacts have been evaluated, the biodiversity offset is carried out by the developer or by a subcontractor (e.g. a conservation NGO).

- Examples: vegetation management offsets in Queensland, Australia; Species Mitigation and Wetland Compensatory Mitigation in the United States; and Fish habitat Compensation in Canada.

**In-lieu fees:** a government agency stipulates a fee that a developer has to pay to a third party, to compensate for residual adverse biodiversity impacts.

- Examples: US Species Mitigation and Wetland Compensatory Mitigation; forest compensation schemes in India and Mexico.

**Biobanking:** once (predicted) adverse impacts are evaluated, the developer can purchase offsets directly from a public or private biobank.

- Examples: US Wetland Compensatory Mitigation; the New South Wales Biobanking scheme, Australia; Compensation pools under the German Impact mitigation Regulation.
Key design and implementation features

• Thresholds and coverage
• Equivalence
• Additionality
• Permanence
• Monitoring, reporting and verification
• Transaction costs
• Compliance and enforcement
Good practice insights on offsets – some preliminary insights

• **Clear objectives** on goals of programme

• **Clear guidance** on implementing the mitigation hierarchy

• **Sufficient technical capacity** and human resource for robust **MRV** – including on-site checks

• **On-line databases** - e.g RIBITS in US; NATUREG in Germany – enhance transparency, reduce transaction costs

• **3 types of offsets** – different pros and cons

• **Regular programme evaluation**
Thank you!

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

www.oecd.org/env/biodiversity

Key areas of OECD work on biodiversity:

- Biodiversity Indicators, Valuation and Assessment
- Economic Instruments, Incentives and Policies for Biodiversity
- Biodiversity Finance, Development and Distributional Issues

Recent and forthcoming work:

- Paying for Biodiversity: Enhancing the Cost-Effectiveness of Payments for Ecosystem Services (OECD, 2010)
- Scaling Up Finance Mechanisms for Biodiversity (OECD, 2013)
- The Role of National Ecosystem Assessments in Influencing Policy Making (OECD, 2014)
- Biodiversity Offsets: Effective Design and Implementation (OECD, forthcoming 2014)

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