Governing Biodiversity and ecosystem services through market-based instruments?

Theory and practice for decision-makers
Beyond confusions: characterising conservation instruments and their relation with markets

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Over the definition, history and scope of “market-based instruments” for managing biodiversity and ecosystem services

– Key messages of WP1 –

1. What are market-based instruments (MBI) for managing biodiversity and ecosystem services?

2. Why and how have these mechanisms emerged?

3. When are they appropriate policy tools?
1. How and why have these mechanisms emerged?

1970s: Theoretical foundations and policy propositions (mainly in the US)

1980s and 1990s: Economic valuation methods and global dissemination

2000s: Sinergies with the ES framework

Key element: The conceptualization of environmental problems as market failures

Despite the « boom », the scope of application is still limited nowadays
Statement 1: The recent "boom" in MBI constitutes a "renovation" instead of a novel development

- Policy transfers and rapid global dissemination (key players: OECD; global NGOs; World Bank)

- The ecosystem services framework has been very instrumental in this process

- The boom has taken place without enough evaluations: high uncertainties
2. **What are market-based instruments (MBI) for managing biodiversity and ecosystem services?**

*Background:*

MBI have been proposed as a policy alternative to command-and-control approaches.

The debate about their applicability in environmental governance has been in part caused by lack of understanding of their properties.
Statement 2: Command and control vs MBI: A false dilemma

• There is not enough evidence supporting the claim about the superiority of MBI vis-a-vis command-and-control

• The effectiveness of MBI is very context-specific

• MBI often require strong regulatory frameworks (they are part of policy mixes)
Statement 3: MBI is a flawed concept

• Lack of consensus about what they are: proliferation of names and definitions

• The term "market-based" creates too much confusion

• Markets: Commodity, voluntary trade and price. Few cases actually meet these conditions

• High diversity of governance forms not only among MBI but also within the same type of "Instrument" (e.g. Payments for Ecosystem Services or Biodiversity Offsets)
### Example of the diversity of Biodiversity Banking arrangements

<table>
<thead>
<tr>
<th>Country</th>
<th>Policy</th>
<th>Type</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Land Pools</td>
<td>Public Non-Commercial Bank</td>
<td>The funder can be a single public entity or a combination of public agencies (an umbrella bank). The aim is to provide biodiversity units solely to offset the impacts of public agencies.</td>
</tr>
<tr>
<td>France</td>
<td>Biodiversity Offset Supply</td>
<td>Public Commercial Bank</td>
<td>Funded by public entities to offset the damage caused to biodiversity by public/private projects. Biodiversity units are created by the public sector and placed as credits on an “open market”.</td>
</tr>
<tr>
<td>Australia</td>
<td>BioBanking</td>
<td>Hybrid Commercial bank</td>
<td>Set up by agreement between private and public entities. The promoter of biodiversity units is private and the government acts as both the regulator (how offset are made) and the broker (intermediary between seller and buyer). Customers may be developers seeking to offset the ecological impacts of their projects, conservation groups or governmental agencies.</td>
</tr>
<tr>
<td>US</td>
<td>Wetland Mitigation Banks</td>
<td>Private Commercial Bank</td>
<td>Managed by a private entrepreneur whose biodiversity credits are available for sale on the market. They are independent of the project developers and customers may be public or private entities.</td>
</tr>
</tbody>
</table>

Source: Adapted from Froger and al. (2014)
## Example of the diversity of Payments for Ecosystem Services (PES)

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Directness of transfer</th>
<th>Level of commodification of ES</th>
<th>Importance of the economic incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CI, as the buyer, transfers funds through commune committees for agricultural support and local patrolling.</td>
<td>Commodification is low as disbursement of the payment depends on compliance with land-use plans or non-logging/non-hunting rules.</td>
<td>Most forms of payment are in-kind and collective. The program also focuses on clarification of rights and building of local institutions (also to incentivise or enable collective action).</td>
</tr>
<tr>
<td>B</td>
<td>There are a number of intermediaries between the ultimate buyers, i.e. hotels and restaurants in Siem Reap, as well as urban consumers and the community service providers, e.g. the farmer association.</td>
<td>The disbursement of the payment depends on compliance with land-use plans or non-logging and non-hunting rules. The premium is fixed and not linked to the level of environmental service provided (e.g. occurrence of birds).</td>
<td>Payments are individual and monetary, delivered through a premium on the paddy price. Besides, the program also focuses on the clarification of rights and building of local institutions (other kinds of incentive and motivation for collective action).</td>
</tr>
<tr>
<td>C</td>
<td>WCS, as representative of the ultimate buyers gives direct payments to individual service providers.</td>
<td>Bird nest protection is measured in the number of protection days, which is converted into monetary terms based on average daily wages in the area (2.50USD per day)</td>
<td>Payments are monetary and individual. Monetary payment is the only form of intervention. The level of payment corresponds to local daily rates for labour.</td>
</tr>
</tbody>
</table>

Source: Extract from Milne and Chervier (2013)
Example of the diversity of *Payments for Ecosystem Services (PES)*

**Figure 2:** Three Cambodia’s PES schemes in terms of importance of the economic incentive, degree of commodification and directness of the transfer. Adapted from Muradian et al. (2010)

Directness of the transfer is proportional to the size of the circle.
• Public character of most ES calls for public governance (imposes limitations to market solutions)

• Common element: flexibility and expectations of efficiency gains (in comparison to command-and-control)

• We should abandon the term MBI and instead talk about *flexibility mechanisms* and *incentives*
3. When are they appropriate policy tools?

Statement 4: Avoid panaceas: The emphasis should not be on specific policy instruments but on the role they can play in broader governance structures

• The scope of application of "markets" is very limited (only when ES are well-defined, standardized and can be voluntarily traded through a price system)

• The potential scope of application for flexibility mechanisms and incentives is however wide (being part of hybrid structures).
• Their effectiveness is context-dependent (on institutional conditions and the way they interact in policy-mixes)

• Our knowledge about the functioning of policy mixes is still very limited

• To understand environmental problems as collective action dilemmas (instead of market failures) might broaden policy options and enhance effectiveness

• Emphasis should be then on coordination among agents (a variety of instruments can be used for that purpose; the choice is dependent on the institutional context)
Thank you for your attention