Applying the TEEB stepwise approach to valuation

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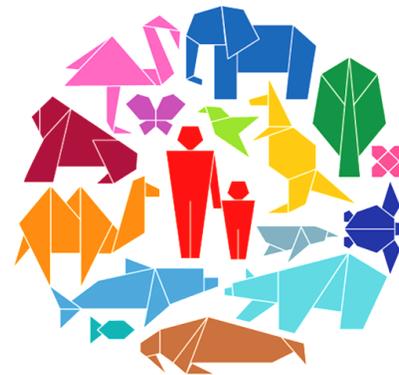
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The TEEB stepwise approach to valuation:

1. Specify and agree on the problem
2. Identify which ecosystem services are (most) relevant to the decision
3. Define the information needs and select appropriate methods
4. Assess the expected changes on the flow of ecosystem services
5. Identify and assess policy options
6. Assess distributional impacts of policy options

The Economics
of Ecosystems
& Biodiversity

A QUICK GUIDE TO
TEEB FOR LOCAL AND REGIONAL POLICY MAKERS
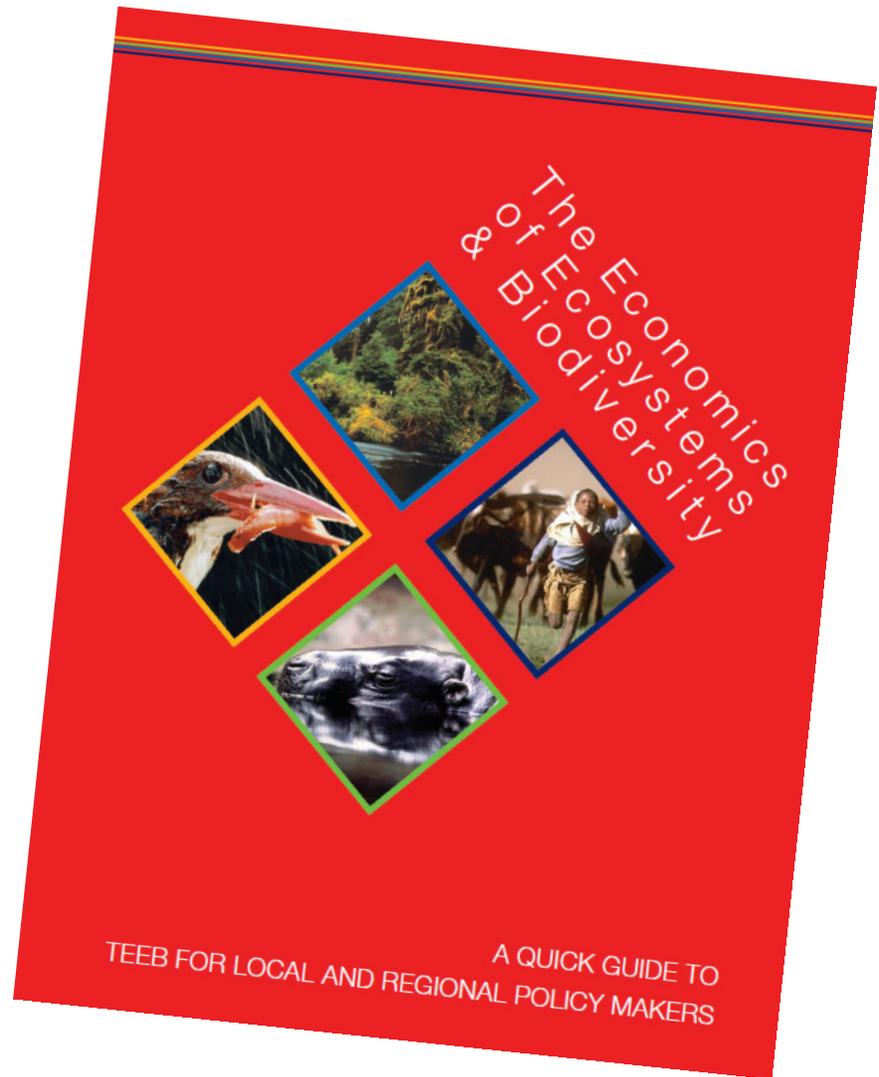
The rationale: Picking the low-hanging fruit in valuation…

Many valuation tools are costly and time-consuming to apply, and require considerable technical expertise…

➢ Apply a cost-benefit-criterion to the valuation exercise itself

- ✓ Aim to capture the most important ecosystem services/elements of TEV in a specific context – do not seek comprehensiveness at all cost

- ✓ Use simpler tools whenever appropriate

- ✓ Consider using qualitative/semi-quantitative representations; do not monetize at all cost

The step-wise approach step by step…

1. Specify and agree on the decision-making problem at hand

   ➢ This may involve the definition of (stylized) scenarios for the different options

2. Identify the most important ecosystem services (or components of TEV) in the specific context

   • in many situations, these will be a few key direct and indirect use values

   • Stakeholder involvement will be critical (example: identification of the role of NTFR for local well-being!)

   • aim for option and existence value only when there is a clear indication that these values are significant in the specific context (because those are particularly difficult to evaluate)

The step-wise approach step by step…

3. Considering using the following (comparatively simple) tools:

- Existing market data: for many direct use values (e.g.: local market prices for many NTFR; tourism revenues;…)

- Cost-based approaches: e.g. replacement cost associated with the loss of indirect use values

- Benefits transfer: for rapid assessments, and with due caution

- Change-in-productivity method: for important indirect use values when good scientific data is available

The step-wise approach step by step...

4. Use indicators for human well-being which are <u>meaningful</u> and <u>practicable</u> in the present context

   ➢ In some cases, using highly aggregated monetary figures will actually obfuscate the contribution of ecosystem services to local well-being

   For instance, the monetary figures for NTFR are often low in absolute terms and need to be complemented by indicators of their relative importance for human well-being

   ➢ Examples for possible indicators:

   • Percentage share of NTFR in monetary/non-monetary income

   • Dietary contribution of food NTFR

   • Annual revenue from tourism sector, number of type of jobs created

   • Etc.

Case example 1:
Cacao development policy in Cameroon
(Assessment supported by UNEP)

Storyline: Cameroon seeks to expand its export base by promoting cacao production. Potentially negative impacts on forest-related ecosystem services are expected to result, in particular through forest conversion. However, much of the coffee is still shade-grown, under traditional agro-forestry systems, and this is an interesting potential asset, in particular from the perspective of biodiversity conservation and sustainable use.

Objective: The study seeks to inform policy-makers on the best way to implement cacao promotion.

Evaluation intégrée des politiques liées au commerce et les implications en termes de diversité biologique dans le secteur agricole en République du Cameroun

Le secteur cacao

Programme des Nations Unies pour l'environnement (PNUE)

Avril 2009
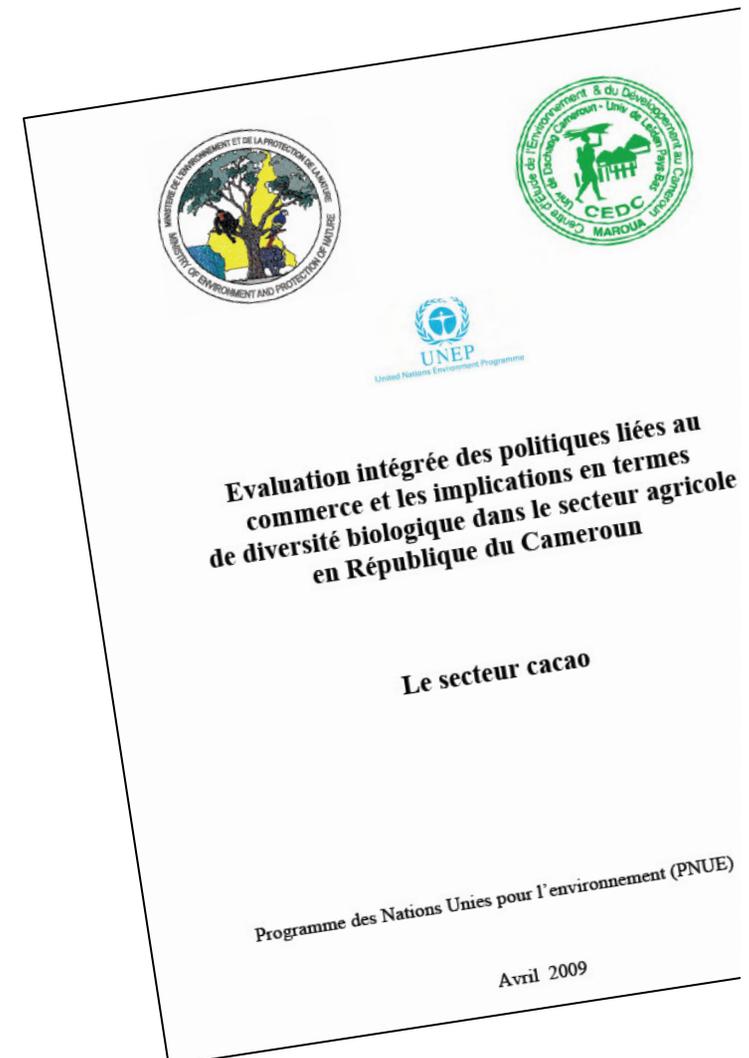
Case example 1:
Cacao development policy in Cameroon
(Assessment supported by UNEP)

1. Scenarios:
   Three <u>stylized</u> scenarios:
   (i) no conversion (status quo);
   (ii) intensive conversion (full-sun with hybrids);
   (iii) promotion of agro-forestry

2. Most critical ecosystem services:
   - Cacao production
   - Other agricultural production from agro-forestry (in particular fruit trees)
   - Forest-related services, in particular NTFR
   - Carbon sequestration

Semi-quantitative assessment of impacts under the three scenarios

I. No conversion

0	additional net income from cacao production
0	other additional income from agroforestry
+++	carbon sequestration
+++	NTFR and associated services

II. Intensive conversion

+++	additional net income from cacao production
0	other additional income from agroforestry
0/+	carbon sequestration
0/+	NTFR and associated services

III. Promotion of cacao agroforestry

+/++	additional net income from cacao production
+/++	other additional income from agroforestry
++	carbon sequestration
++	NTFR and associated services

Case example 2:
Wetland conservation

Storyline: Wetlands adjacent to urban agglomerations are increasingly encroached on by urban development, possibly including illegal settlements, and increased discharge of household and industrial pollutants. In many cases, this puts a number of critical ecosystem services at risk.

Objective: The study seeks to inform policy-makers on the best way to address this issue.

Sources: Emerton 2003; Emerton et al. 1999

Case example 2:
Wetland conservation

1.   Most critical ecosystem services:

   •   Fish farming and weed harvesting (small-scale income generation)

   •   Water purification

   •   Amenity values

2.   Scenarios:

   Three <u>stylized</u> scenarios:

   (i) business as usual;

   (ii) technology-intensive approach (sewage plants);

   (iii) strengthen spatial planning and community co-management

Semi-quantitative assessment of impacts under the three scenarios

I.   BAU

0   Fish farming/weed harvesting

0   Drinking water provision

+   Amenity values

0   financial/opportunity cost

II.Technogarden

+++   Fish farming/weed harvesting

+++   Drinking water provision

++   Amenity values

--- (?)   financial/opportunity cost

III.   Spatial planning and co-management

++   Fish farming/weed harvesting

++   Drinking water provision

+++   Amenity values

- (?)   financial/opportunity cost

Group work (by table)

1.	Discuss and agree on a specific decision-making problem of relevance in your countries.

2.	Identify and agree on possible (stylized) scenarios.

3.	Identify the most important ecosystem services associated with the case.

4.	Develop the scenarios in semi-quantitative terms.

If there is time:

4.	(Which additional indicators would you think are most meaningful and practicable in the context of your case?)