
**Reflections on TEEB:
Resilience, social-ecological system analysis
and a rights-based approach – towards an
economics focused on human wellbeing**

KSLA 13 October 2011

Agr. Dr. Thomas Hahn

thomas.hahn@stockholmresilience.su.se

Stockholm Resilience Centre
Research for Governance of Social-Ecological Systems



A centre with:



FUNDED BY
MISTRA

TEEB: links between ecosystems and poverty

- ❑ TEEB estimates the welfare loss from land-based ecosystems alone under a business-as-usual scenario to around €50 billion/year.
- ❑ The consequences of biodiversity loss and ecosystem service degradation are not being shared equitably across the world.
- ❑ Basic needs and livelihoods of many subsistence farmers, fishermen, pastoralists and the rural poor in developing countries are at stake. For these people sustaining ecosystem services is about survival
- ❑ TEEB spells out direct links between Biodiversity loss & Ecosystem degradation and the risks of failure on all eight Millennium Development Goals

Views from Third World Network and ALBA group

- ❑ Still, TEEB (and Green Economy Report by UNEP) has been critiqued by developing countries for downplaying equity issues.
- ❑ There is a fear that valuation of ecosystem services will lead to commodification of public goods that marginalized people with **unclear tenure rights** depend on and might get excluded from using or benefit from. Safeguards need to be in place. Raised by ALBA group in Nagoya COP10 CBD, 2010.
- ❑ Third World Network/South Centre have also expressed fear that **equity and livelihood** will be compromised when ecosystem services are **traded** on the world market. Research papers 40, Risks and uses of the green economy concept in the context of sustainable development, Poverty and equity, Martin Kohr, South Centre, July 2011
- ❑ A recent Norwegian report emphasizes that establishing markets necessitates government actions (Noragric 2011 “Can Markets Protect Biodiversity? An evaluation of different financial mechanisms.” Norwegian University of Life Sciences (Noragric)
- ❑ A preliminary conclusion: TEEB has addressed complexity regarding ecosystems much better than complexity regarding rights, equity and trade.

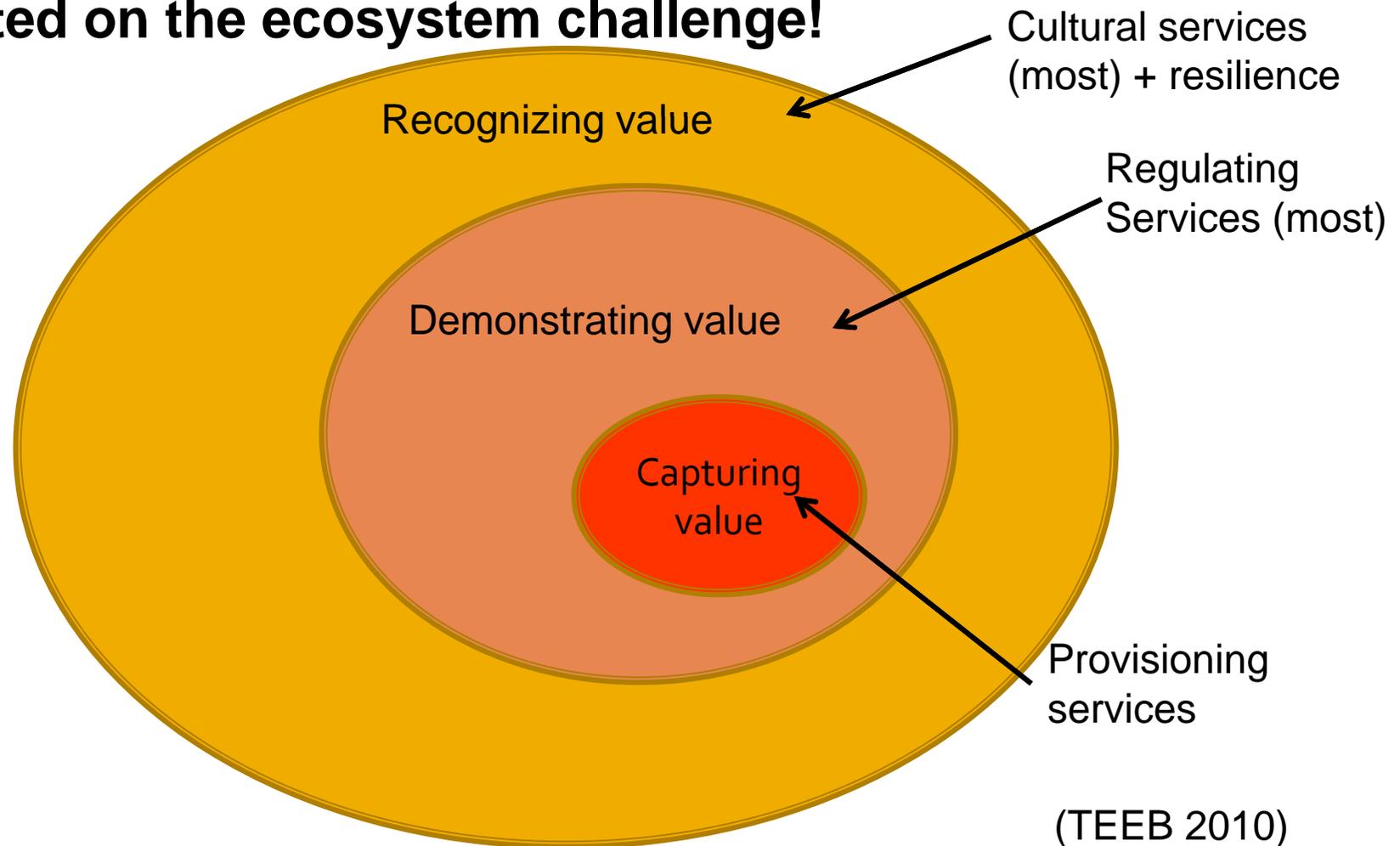
TEBB addresses ecosystem complexity ...

- ❑ **Ecosystem resilience** provides a kind of ‘natural insurance’ against potential shocks and losses of ecosystem services. Although difficult to measure, the insurance value of well-functioning ecosystems should be regarded as integral **part of their Total Economic Value**. (TEEB Synthesis Report p. 25)
- ❑ In daily practice, [resilience and] **insurance values** are difficult to measure, justifying a **precautionary approach** to ecosystem and biodiversity conservation. (TEEB Policy Report p. 8)
- ❑ Recommendations: Economic **[monetary]** valuation is less useful in situations characterized by non-marginal change, radical uncertainty or ignorance about potential tipping points. In such circumstances, prudent policy should invoke **complementary approaches** such as the ‘safe minimum standard’ or the ‘precautionary principle’. Under conditions of uncertainty it is generally advisable to err on the side of caution and conservation. (TEEB Synthesis Report p. 26)

... and, to some extent, rights + intrinsic values

- ❑ In situations where cultural consensus on the value of ecosystem services is strong and the science is clear, it may be relatively straightforward to **demonstrate values in monetary terms and capture them in markets. ...**
- ❑ On the other hand, in more complex situations involving multiple ecosystems and services, and/or **plurality of ethical or cultural convictions, monetary valuations may be less reliable or unsuitable.** In such cases, simple recognition of value may be more appropriate. (TEEB Synthesis Report p. 12)
- ❑ **Intrinsic values** are culturally embedded moral truths. They can be taken into account by choosing the appropriate **institutions** which allow their articulation in addition to **utilitarian values.** (TEEB Chapter 4 Key message)
- ❑ **Conclusion: TEEB acknowledges that monetary valuation reduces “dignities” (intrinsic values) to “commodities” (utilitarian values). How should intrinsic values be communicated and governed? How can TEEB address human rights? This is the challenge raised by the critique from developing countries.**

Cultural values are difficult/unsuitable to monetize, but so are insurance values and resilience. TEEB has only elaborated on the ecosystem challenge!



TEEB: Conventional + Heterodox Economics

- ❑ Several prominent environmental economists came to the conclusion that the **standard economic model offers an inadequate framework** to analyze environmental issues characterized by irreversibilities, pure uncertainty, and very long time horizons (Dasgupta 2008, Weitzman 2009)...
- ❑ These points have been made about environmental resources for decades by economists working outside the neoclassical paradigm (Boulding 1973, Daly 1977, Georgescu-Roegen 1971). Interestingly, it seems that the policy prescriptions of both those using a more conventional welfare economics approach, and those who call for an alternative, **heterodox approach** to environmental valuation, **are converging**.
- ❑ Using either standard or alternative approaches, when the services of nature are taken into account, **sustaining human welfare in the future implies aggressive conservation and ecosystem restoration policies** in the present (TEEB Chapter 6, page 7).
- ❑ Hence, Cost-effectiveness analysis becomes more appropriate than CBA (Noragric)

Economics is broader than utilitarianism

- ❑ “Notions of **fairness, opportunity, freedom, and rights** are arguably of more importance in policy making than [enhancing utility]. Insofar as economists want to assist in the formulation of policy toward such ends, they must **link economic theory to such concerns**. Doing so requires understanding what these vague things are that people apparently value so much.”

(Hausman & McPherson 1993, “Taking ethics seriously: economics and contemporary moral philosophy.” *Journal of Economic Literature*, 31: 676).

- ❑ Economics is about human behaviour and choices, hence about consequentialist ethics
- ❑ Can consequentialist ethics be combined with a rights-based approach?

Consequentialist ethics need not be reduced or equated with utilitarianism

Utilitarianism is comprised of three elements (Sen 1987, p. 39):

1. welfarism (the idea that the goodness of a state of affairs be a function only of the utility information regarding that state),
2. sum-ranking, and
3. consequentialism.

If existing rights should be respected and rights violations treated as bad things, welfarism must be compromised, since welfarism requires that nothing else be intrinsically valued other than utilities. Consequences, on the other hand, may be described and evaluated in different dimensions – rights, freedom, monetary pay-off, perceived fairness, and so on: “When the different elements of utilitarianism are unpackaged, it is seen that although a rights-based moral theory cannot coexist with ‘welfarism’ or ‘sum-ranking’, it can very well do so with consequentialism” (Sen 1987, pp. 74-75).

Re-definition of “efficiency”

- ❑ The time has come to liberate the concept of “efficiency” from its present narrow meaning of Pareto optimality (Sen 1987:29).
- ❑ We should acknowledge that “efficiency” must reasonably be open to plural interpretations, just like the concept of “equality.” ...”As the notion of advantage is altered, so is the content of efficiency.” (Sen 1987:48)

Sen, Amartya. 1987. On ethics and economics. Oxford: Blackwell Publishers.

- ❑ In a sustainability framework, one institutional arrangement A, that better meets a set of multiple objectives/criteria, can be regarded as more advantageous or more “efficient” than an alternative arrangement B (Hahn 2000).

Hahn, T. (2000). *Property rights, ethics, and conflict resolution: Foundations of the Sami economy in Sweden*. PhD dissertation, Agraria 258, SLU, Dept of Economics, Uppsala.

A new conceptualization of “efficiency”

- ❑ Depending on the institutional framework, ecosystem change affects peoples livelihoods, food sovereignty, adaptive capacity and general opportunities to live decent lives. These values are sometimes called “dignities” as opposed to “commodities” but they can be included in an economic assessment.
- ❑ These intrinsic variables ought to be explicitly recognized and valued in a detailed non-monetary framework, for example a Multi-Criteria Decision Analysis (MCDA). Such analysis can, besides assessing ecosystem and standard economic criteria, assess consequences for:
 - Food sovereignty (including self-reliance)
 - Self-esteem (including opportunities to develop)
 - Tenure rights and adaptive capacity (economic resilience)
 - Health... and other non-utilitarian constituent of human wellbeing
- ❑ = a Rights-based approach to ecosystem services

Conclusions

- ❑ Payments for Ecosystem Services (PES) and other market-based approaches involve “commodification” of ecosystem services but this may be desirable “in situations where cultural consensus on the value of ecosystem services is strong and the science is clear” (TEEB Synthesis Report p. 12).
- ❑ In other situation TEEB embraces non-conventional economic tools like the precautionary principle and safe minimum standards.
- ❑ How can a “precautionary principle” approach be used to handle livelihood, food sovereignty, tenure rights and economic resilience for the rural poor in developing countries? This would address the concerns of Third World Network and several governments in developing countries.
- ❑ The intrinsic values at stake ought to be explicitly recognized and valued in a detailed non-monetary framework, for example a Multi-Criteria Decision Analysis (MCDA). Such criteria should include food sovereignty, self-esteem, health and other non-utilitarian constituent of human wellbeing.



Rights issue also raised by governments and authorities...

- ❑ A recent Norwegian report emphasizes that establishing markets necessitates government actions. The most fundamental such action is defining rights, as the clear definition of rights is crucial for creating financial flows for biodiversity protection.
- ❑ Although Payments of Ecosystem Services (PES) is mostly presented as a market-based solution, governments/public sources account for 97-99% of the payments (Noragric 2011 “Can Markets Protect Biodiversity? An evaluation of different financial mechanisms.” Norwegian University of Life Sciences (Noragric) and Norwegian Agency for Dev Coop)
- ❑ PES in Sweden, e.g. payments to farmers, has become a successful tool for biodiversity conservation. And it addresses ecosystem resilience!
- ❑ But why are developing countries not so enthusiastic?

Challenges for TEEB

- ❑ Some kind of valuation of Ecosystem Services is needed to make the value visible for decision-makers
- ❑ However, “current valuation methods only help us ‘see’ ecosystem services and their values from within our unsustainable economy” (Norgaard 2010:1223).
- ❑ To yield efficiency, markets need well defined property rights. To yield sustainability, markets may “require significant reallocations of property rights between historic users and new public interests” (Norgaard 2010:1222).
- ❑ Markets for ecosystem services = commodification of nature. To be effective, we need to develop institutions that address ecosystem complexity and
 - i. respect intrinsic values and other human rights in non-utilitarian terms
 - ii. ensure that poor people benefit
 - iii. provide appropriate incentives to handle public goods
- ❑ Hence we need to focus on getting the institutions right, rather than getting prices right (Norgaard 2011: Ecosystem services: From eye-opening metaphor to complexity blinder)

Limits of utilitarianism

- ❑ To overcome the difficulty of measuring utility and preferences, these have been reduced to money:
- ❑ “Economists often rely on more objective measures of ‘real income’ rather than utility measures. This, however, is typically viewed simply as a compromise with data limitations: real income is regarded as a proxy for preference satisfaction”. (Hausman & McPherson, 1993:689)
- ❑ Hence, **philosophical compromises and methodological shortcomings** have played a significant role for the economic growth orientation in contemporary economics!