Comments: Accounting for the Condition of Environmental Assets
by Peter Cosier

UN Committee of Experts on Environmental Accounting

Per Arild Garnåsjordet
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Earth from Saturn
General evaluation

• Mr. Cosier’s issue paper is of great interest to our work in environmental accounting.

• It will probably represent an important line of thinking in terms of experimental ecosystem accounting.

• One reason for this is that it represents a narrative-based ecology - and on that basis he opens up for a communication between economy (growth and expansion) and ecology (maintaining the natural capital in the ecosystem).

• He argues in favour of a composite indicator $E_{cond}$ that can be a value measure for biodiversity.
Selection of Narratives; perspectives and importance

PERSPECTIVE 1

PERSPECTIVE 2

PERSPECTIVE 3

PERSPECTIVE 4

Very important
important
Not important
Different perspectives in choice of narratives, ex buy a car.

- Economic Criterion
- Safety Criterion
- Cultural Criterion
- Driving quality Criterion

- Fuel consumption
- Road handling
- Maintenance costs
- Price
- Design
- Status Symbol
- Colour
- Noise
- Safety devices
- Speed / acceleration
- Reliability
- Comfort

- Young man
- Family man
- Mature man
Different perspectives in choice of narratives, importance of nature

Harvesting of resources

- Cultural values
  - Experience of nature
  - Spiritual values
  - Recreation
- Conservation values
  - Species richness
  - Responsibility species
- Regular farmer
- Outdoor recreationist
- Ecosystem researcher

Ecosystem functioning

- Primary production
- Decomposition
- Biogeochemical cycles
- Red list
- Tree growth
- Productive capacity
- Fish & game stocks
Link between Econd and economy

• The main link between economy and Econd comes from social preferences through policy implementation.

• How much will society spend to maintain a certain level of Econd? What are the most efficient policies and what are the costs? These are avoidance cost basically.

• Through experience, a large number of cases may be presented from different countries and different ecosystems which will give an indication of a minimum value of a certain level of biodiversity.

• A special feature is the close cooperation between the ecologists and The National Statistical Office in Australia which introduce the ecologist to the concept and methodological approach of SEEA. This is very much the same we have in Norway
What is an Econd?

- Econd is measured as an index that is comparing an ecosystem with a reference condition - the original ecosystem condition.

- In some cases this may be possible to assess the original condition because part of the nature is still of pristine character.

- It is mentioned that the reference condition may be local. More proper would be to say regional. On a whole continent the natural conditions may vary so much that to use only one reference condition for a type of ecosystem, may be difficult – but I would try.

- In other cases nature is so much influenced by man that we do not know and may not be able to model the original conditions of an ecosystem - an example can be a marine region being exploited for several hundred years.

- In other cases the reference state may be that of maximum biological diversity as a result of old harvesting regimes.
How to measure Econd

This is the most unclear part of the paper. For vegetation there seem to different ecosystem types each to be described by:

• vegetation extent
• Structure
• ’connectivity
• For soil there are also different types do be described by ph and carbon
• For fauna there is normal diversity measures, but threthened cspecies are entered into it
• For aquatic system theree are still some othe type of variables.

There seem to be no common measurement mode and that make the concept difficult to use in practice
Too much expert-driven?

• Users have to be confident that the quality of Econd is good enough.

• That can only be achieved by the use of extended peer groups. The different interest groups have to participate in the process of setting objectives and evaluate measures when Econd will be developed from a simple measure to more sophisticated an comprehensive measures.

• The use of the Econd can be modified through this kind of learning.
Single and double loop of learning

Source: LeadershipNow.com (2008)