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Director General

International seminar "Towards linking ecosystems and ecosystem services to Economic and Human activity". 27-29 November, New York.

Opening address by Walter Radermacher, Director General, Eurostat

Introduction

- Walter Radermacher. DG Eurostat. Chief Statistician of EU.
- Also personal interest. Worked on environment accounts Destatis 25 years ago.
- Chair of UNCEEA 2005-2008 (1. term of UNCEEA) when UNCEEA initiated work to revise SEEA.

History

- After Brundtland report and Rio conference 1992, first SEEA in 1993 was the statisticians' response to look more closely at links (mutual interactions) between economy and environment through a "satellite" account consistent with SNA.
- Revised and expanded in 2003 as experience with environmental accounting grew.
- 2007 UNSC decided it was time to make SEEA into a statistical standard
- Achieved UNSC 2012 with "central framework" adopted as statistical standard including bits on which sufficient experience and consensus. Environmental Accounts are compiled by many countries around the world. . In the EU, a second batch of environmental accounts will be submitted for legislation in 2013 (EPE, EGSS, Energy.
- This conference is about ecosystems which is much more path-breaking and there is much less (or almost no) experience.

Dilemma

- Statistics should respond to needs, not precede them. At the same time statisticians should be associated at an early stage to help translate often unclear needs into measurable statistics.
- Extension/replacement of GDP has to be "better" than the GDP: More comprehensive, more relevant, but **not** less consistent with theory (-ies) and of cause **not** of lower quality. (Success

of GDP is an interesting story: it is relevant, it is consistent and it is measurable with high quality)

- The present text on experimental ecosystems recognises there are many problems to solve in order to turn the broad idea into measurable concepts.

Ecosystems as systems or components

- An ecosystem approach turns the perspective upside down: Environment is no longer a (marginal) externality to/of economic activities and markets. In a physical perspective the system "economy" or "society" or a combination of both is part of the broader (global) ecosystem.

- Fortunately, this system view in theory fits nicely together with the meso-economic concept of input/output, supply/use, which can be embedded in a system of physical flows, inputs, throughputs and outputs of the same nature (compare with the exercise of physical IOT).

- Unfortunately, this exercise can become extremely complex and immeasurable quite soon. One has to focus on specific extracts accordingly (but which?).

- Even more difficult is to find a place for "stocks" in this conceptual frame. Of course one can say that ecosystems have capacity to deliver all kind of tangible goods or intangible services and that this capacity is a kind of stock that can be degraded. It is however another story to translate this into a statistically applicable working system, having in mind that those ecosystems are not well separated islands at one layer of a geographical screening. On the contrary, we are confronted with many layers of systems which interact, have mutual influences and feed-backs.

- Property rights: Ecosystems are often, maybe in their majority not clearly related to ownership. Even the allocation (via the territory) to one nation might be difficult. For such common goods or even global common goods an accounting approach is faced with unknown difficulties.

- The quantitative relation of ecosystem services, which follow geographical patterns (e.g. a river in a valley) to the use by an economic activity (an industry, household consumption etc.) includes major measurement problems. Similar problems are linked to unsynchronised time-paths.

- SEEA CF already treats separately many components of the environment (land, trees, water, sub-soil assets…)

- SEEA ecosystems accounts would like to take a more holistic approach to ecosystems where these elements function together. So far has not been possible, but rather focus on different aspects: carbon sequestration, land cover as a kind of proxy for ecosystem state.

- Probably with the present state of our knowledge this is a wise approach.

SEEA Experimental ecosystem accounts

- The interaction between accounts and primary statistics has to consider availability and suitability of primary data and – in case of unavailability – the feasibility of their collection in principle.
- Currently we have some data on land cover, but very little on ecosystems or biodiversity.
- The draft text is brand new, first complete draft first distributed less than 2 months ago, current version made available 2 weeks ago. So for many readers this may be quite new.
- The draft text has achieved much in bringing together knowledge of statisticians and environmental experts. For the first time we have an attempt to give a consistent presentation for ecosystem accounts.
- However many important aspects still need to be clarified before we can consider this a statistical system:

    Scope of ecosystems and identification of services they provide

    Classification (statisticians need classifications) for stocks and flows

    Units of measurement of the ecosystems and their geographical location

    Aggregation in physical terms

    Monetary valuation, which I will say more about later.

Role of NSIs

- Ecosystem accounts need input from several different disciplines: environmental experts, academics, environment agencies and statisticians
- Initially role of statisticians concerns mainly provision of all the basic stats we have with maximum geographical breakdowns - especially agriculture and forestry, land cover. These will be data expressed in <u>physical</u> terms.
- However, many NSIs have no strong involvement with detailed geographical data and maps.
- Expect pilot testing by multi-disciplinary teams including environment agencies or research institutes.(Eurostat already works this way with European Environment Agency)

Future of work on SEEA Ecosystem accounts

- Text available is not developed enough to give all answers. As Chief statistician of EU I could not tell MS to build accounts with this first specification of the issues.
- But text provides a basis for countries who wish to develop (aspects of) ecosystem accounts in a common approach. This experimental pioneering work will feed back in some years about the feasibility, gaps, data problems and quality of possible accounts.

- Environmental and ecosystem issues that are most relevant differ between countries, so they should be free to experiment with parts that concern them. (Perhaps for some key aspects we would like a more global perspective e.g. for carbon?)

I am aware there is a demand among some policy makers - or advisors to policy maker - for **monetary valuation** to show how "valuable" the environment is. I am convinced this is a wrong idea, at least when the results are communicated as statistics.

- There is no market in most ecosystems or their services to provide a price.
- Attempts to simulate a "price" by various surrogate techniques produce widely differing and unreliable results (willingness to pay, look for some similar service, restoration costs).
- Large scale simulations of non-existing markets are by nature models/scenarios. They might have their place in communication strategies creating awareness for new phenomena. Whether it is possible and meaningful to simulate entire markets, is a question that touches elements of scientific axioms and the functioning of democratic decision making procedures. This is going far beyond the business of a statistician. In any case, those simulations must not be mixed up with small scale estimation of missing information as applied in National Accounts.
- We are interested in following changes over time in the state of the ecosystems (or their services) which requires a high level of precision in detail, as it would force us to some sort of "constant price" estimates which are quality-adjusted quantities.
- Fortunately the draft today is very prudent and recognises the limitations of monetary valuation.
- One might consider drawing the line between the production of official statistics on the one side and their use for scientific purposes (modelling etc.) on the other side in a more transparent and clear manner.

Situation in EU

- Already occupied with implementation of the SEEA Central framework (adopted as statistical standard by UNSC March 2012).
- Concerning work on this part 2 Experimental ecosystems accounts

    Eurostat contributed to the drafting

    Look forward to testing (EU leader is European Environment Agency)

    Possibly one or two EU countries to test using different perspectives and focus

Encourage all countries that have the capacity to do so to experiment with ecosystem accounts, give feedback for next version and provide good practices to be followed by others.

Finally I regret I cannot be with you in New York but wish you a good meeting.