

Statistical Commission

Forty-first session

23-26 February 2010

Item 3 (h) of the provisional agenda

Items for discussion and decision: environmental accounting

Background document

Available in English only

**Progress Report
London Group on Environmental Accounting**

Prepared by the Chair of the London Group on
Environmental Accounting

Progress Report London Group December 2009

1. Introduction

This progress report is an update of the report submitted to the United Nations Committee of Experts on Environmental Accounting (UNCEEA) last summer. The report reviews progress made to date by the London Group on Environmental Accounting (LG) in its review of revision issues related to Volume I of the revised System of Environmental and Economic Accounts (SEEA) and reflects also outcomes of the 15th LG meeting in Wiesbaden.

According to the time table of the SEEA revision process, all 21 revision items addressing Volume 1 of the revised SEEA should be closed by the end of 2009. The LG was able to conclude on most of these issues (the annex of this document provides a summary). However, many outcome papers still have to be submitted to the UNCEEA for further consultation.

In the following section the current state of play of the Volume 1 research agenda is discussed issue by issue. The last section of this report suggests on how to move forward the research agendas for the SEEA Volumes 2 and 3.

2. SEEA Volume 1 Issues – state of play

1. Harmonisation of MFA with the SEEA

Besides streamlining of terminology, this issue includes the following three conceptual topics: recording of cultivated biological resources, treatment of consumer durables and recording of landfills. All these issues were discussed in LG meetings in Johannesburg and Rome and, as indicated in the 2008 progress report, brought to an end. The outcome paper is pending.

2. Definitions and classifications of physical flows

This substantial issue entails a complete and consistent classification system for materials, water and energy flow accounts. Since the Johannesburg meeting, classifications of physical flows have been discussed in all LG meetings. Central in these discussions was the alignment of CPC to the European Waste Classification (EWC).

At its 15th meeting the LG was able to close this issue. The LG agreed to maintain the classification of the SEEA 2003 of natural resources, products and residuals. The LG agreed also with the proposal to classify all product flows according to CPC, maintaining consistency with the SNA supply-use framework. Waste in the SEEA covers both waste products and waste residuals. Waste residuals will be classified on the basis of the Waste Framework Directive (WFD). The final proposal of the LG will be submitted to the UN Classification Expert Group for further consultation.

Regarding energy flows the LG recommended that the classification in the SEEA should be consistent with IRES. The IRES classification is currently being discussed by the Oslo Group on energy statistics.

3. Linking energy flow accounts, energy balances and energy basic statistics and emission inventories and accounts

The revised SEEA will present bridge tables explaining differences in underlying definitions and classifications between energy balances and accounts. Likewise the revised SEEA will

explain differences between air emission statistics (following IPCC reporting rules) and air emission accounts following the SNA resident principle. In general terms, these tables are well understood and their design was discussed by the LG at its Brussels meeting. However, a final proposal must be aligned with IRES.

At its 15th meeting the LG further explored the precise boundary of the SEEA emission accounts based on the resident principle. The pending outcome paper will flag a range of borderline cases.

4. Renewable energy

Issue papers on the recording of renewable energy sources were discussed by the LG in Canberra and Wiesbaden. For hydropower it was agreed that the natural resource (the water reservoir) should be distinguished from fixed assets (e.g. the dam). Water reservoirs which are specifically used for hydropower generation should be classified as renewable energy assets.

For solar, wind, thermal and tidal renewable energy sources the LG agreed that resource rents will generally be reflected in land prices and subsequently in land rents.

The LG argued that the classification in SEEA of renewable energy in terms of flows should be in line with IRES.

The issue is considered resolved with an outcome paper pending.

5. Environment industry

The European System of Environmental Goods and Services Accounts has recently been updated. The LG considered this system sufficiently mature to be adopted in SEEA Volume 1. The outcome paper is pending and will include a standard set of tables for adoption in SEEA and a technical annex representing the methodological chapters of the handbook.

6. Environmental taxes

The discussion on environmental taxes has been brought to an end. The recommendation is to follow the EU, OECD, IEA definition of environmental taxes. The outcome paper will further elaborate on the distinction between taxes and fees and the distinction between resource taxes and resource rent. The general definition of taxes in SEEA will be fully in line with the 2008 SNA.

7. Environmental subsidies

The conceptual discussion on environmentally motivated transfers (subsidies, current and capital transfers), to be presented in SEEA Volume 1, has been brought to an end. The outcome paper is pending on a proposed classification to be discussed at a Eurostat taskforce meeting in February 2010. This taskforce will also deal with the issue of potentially environmentally damaging subsidies. This latter issue is expected to be dealt with in either SEEA Volume 2 or 3.

8. Permits

For tradable emissions permits the LG considered for adoption in the SEEA two accounting propositions:

1. The SNA treatment based on taxes;
2. Property income treatment given that the SEEA identifies an underlying asset being the atmosphere.

The LG agreed to follow the SNA treatment given that much more time would be needed to consider all consequences of recording permits as giving access to a natural resource (i.e. the atmosphere). The Group accepted the unwanted consequence that, in case the mixed asset option would be adopted in the context of the SNA, the SEEA (like the SNA) will not be able to reflect all costs of obtaining and surrendering permits in the production account of the polluter. The Group considered it useful to further explore the property income solution in Volume 2 of the SEEA. Based on the discussions in Wiesbaden, an outcome paper will sum up all pro's and con's of the two accounting options.

In addition, an outcome paper will be prepared showing a set of tables exposing quantities of permits obtained, traded and surrendered by industries and institutional sectors.

9. Classification of natural resource management expenditures

The LG approved the CRUMA for adoption in the SEEA. In addition, the LG recommended combining the two classifications, CEPA and CRUMA, into one single classification of functions (CEA). On the basis of this decision an outcome paper was written and discussed by the UN Classification Expert Group. This group gave its approval to this combined classification.

10. Classification of assets

The LG considers the current SEEA terminology of “economic/environmental” assets confusing and a dichotomy of “SNA/non-SNA assets” is being proposed instead. The LG agrees that ideally the SEEA should start measuring assets from the perspective of ecosystems. SNA assets should be identified within this framework as a subsequent step. This would give the SEEA more independent position from the SNA. However, the feasibility of this hierarchy needs to be further explored.

Consequently, this rather important (and strategic) issue has not been closed yet and further consultation is needed. It was suggested to restructure the paper presented in Wiesbaden in the format of a questionnaire, to help guiding the discussion by starting from the higher order issues (e.g. definition of asset) to the lower order issues. The LG considered that consultation should not only involve the LG but also national accounts experts (e.g. members of the former Canberra 2 Group).

11. Categorisation of mineral and energy resources

This issue was discussed in Brussels and Canberra. The proposed classifications encompass that of energy resources and their characteristics. The LG agreed with aligning the classification of mineral and energy resources with UNFC. The hierarchy needs further consideration to ensure consistency with mineral and energy product classifications. The outcome paper will be submitted after finalisation of UNFC 2009.

12. Valuation of assets

At its Rome and Brussels meetings the LG examined asset values for fish stocks derived from quota systems. Where these systems are well established, quota values are the preferred method to value assets since the gross operating surpluses of (main) extractors do not always seem to capture the entire resource rent of biological resources. In these cases, resource rent calculations as a residual may lead to underestimated asset values. An outcome paper on this particular sub-issue has been submitted for a final London Group consultation.

Regarding valuation of timber resources the LG suggests to stick to SEEA 2003 recommendations.

13. Recording of natural resource depletion for non-renewable resources

At its Brussels meeting the LG took one final opportunity to discuss the depletion issue. Paul Schreyer from OECD participated in this discussion. There was general consensus to keep to the earlier agreed position on defining depletion as the resource rent less the income element. A final outcome paper reflecting this position and highlighting interpretation issues presented in a paper provided by Statistics Denmark will be prepared. In the outcome paper the following two issues need further clarification: (a) allocation of the income element in case of split ownership, (b) recording of the income element in case of no (or small) extraction.

14. Recording of natural resource depletion for renewable resources

As indicated in the 2008 progress report, the LG took last year a decision on the depletion recording of renewable assets. At the Rome meeting the Group expressed some (minor) concerns about the proposed recording of natural growth of renewables (the SEEA 'output') alongside harvest of these resources (the SNA output) and the role of bio-economic modelling to make judgement on whether 'depletion' has occurred, rather than just a simplistic net natural growth versus harvest estimate. These remaining minor issues will be taken into consideration in the outcome paper.

15. Decommissioning costs and recording ownership of mineral-related assets

The LG discussed the recording of remedial and terminal costs at its Wiesbaden meeting. The LG agreed that terminal costs should be treated as capital formation. CFC needs to be recorded over the expected service life of the asset (oil rig). The LG agreed that terminal costs to lock up contaminants in a disused site should be treated e.g. as fixed capital formation as well, treated either as termination costs or land improvement depending on circumstances. The LG advocated that in case depreciation put in place upfront is not followed by the concomitant capital formation (i.e. the terminal costs) the accumulated sum of depreciation will disappear via the other changes in volume of assets. The LG considered further consultation of SNA on these issues and conclusions desirable. The planned outcome paper will meet this purpose.

16. Treatment of water in artificial reservoirs

The LG sympathised with the idea to record artificial reservoirs under control and management as produced assets. However, the Group did not reach an agreement on this recommendation. The Group expressed concerns with regard to specific cases including those reservoirs in which the owner manages the quantity of water (e.g. for hydropower) and not the quality. In this case, discharges of wastewater to the artificial reservoirs would have to be recorded as flows within the economy which seems counterintuitive. The LG requested that a follow up paper be prepared discussing borderline cases, providing examples of cases when this is particularly relevant (e.g. Australia – evaporation connected to human activities) and providing a summary of the discussion of this issue in the context of the update of the 1993 SNA. The paper will be submitted for electronic consultation.

17. Recording of losses (storage, distribution, transformation, theft)

This issue about losses of e.g. water and energy was picked up by the LG at its Canberra meeting. The group reached agreement about the suggested typology of losses. However it was recommended to expand this typology also to include extraordinary losses in the other volume changes in asset accounts.

There was a preference for the net reporting of losses which usually corresponds better to quantities subject to market transactions in the SNA. This will safeguard meaningful unit prices. Information on losses and gross/net recording will be provided in SEEA in supplementary tables. An outcome paper will be circulated to LG for consultation and approval.

18. Valuation of water

The inclusion of water in the monetary asset accounts in SEEA Volume 1 will relate only to water in reservoirs. Other valuation aspects of water will be discussed in Volume 2. The valuation of water reservoirs for hydropower generation will be discussed in the outcome paper on renewable energy assets. The paper on water reservoirs as produced or non-produced assets will also look at valuation aspects. This means that a separate outcome paper on this issue is not needed. All aspects, relevant for SEEA Volume 1 are dealt with elsewhere.

19. Land

Since the Johannesburg meeting the issue of land (in combination with ecosystem accounting) has been discussed in all LG meetings. The LG agreed to adopt in SEEA Volume 1 accounts covering land use and cover and their changes. Also the LG recommended adopting distinct classifications for land use and cover. The LG agreed in principle on a main list of land cover categories. An outcome paper needs to address in more detail classification criteria, definition of the classes, and the classification hierarchy. An outcome paper will be produced on the basis of these London Group recommendations by April 2010. It is expected that the required FAO consultation will take place before April. EEA and FAO will align the work on land use and land cover. The proposal will be submitted to the Expert Group on Classifications after one final LG review.

The land cover proposal is considered complete and includes concordance tables and detailed descriptions of first level items. The outcome paper is expected by the end of January taking into consideration comments made by the LG in Wiesbaden.

20. Recording of soil and its valuation

The LG agreed that the SEEA should continue to classify soil separately from land in the SEEA classification of assets. However, the resource rent in the (monetary) current accounts of the SEEA will combine the rents of both resources.

Further the LG agreed with the proposal to reallocate the depletion element of the resource rent together with actual rent payments on land in the income distribution account from the producer (e.g. farmer) to the land owner.

The LG discussed differences in terminology between depletion and degradation: depletion relates to changes in resource stock quantities, degradation to changes in quality. Soil is subject to both depletion – in terms of soil erosion, and degradation – in terms of loss of quality. Both can be the direct outcome of economic activities using land in production (e.g. agriculture, forestry).

The LG agreed that losses in the productivity of the land as a result of soil degradation are very important and should preferably be addressed as an income adjustment element in SEEA Volume 1. The Group agreed from a conceptual viewpoint to record losses in productivity as a result of soil degradation as a charge against income rather than in the other changes in volume accounts, similar to the recording of depletion of renewable and non-renewable resources.

The Group considered it very important that the World Bank is consulted to provide information on the feasibility of measuring soil depletion and degradation.

An outcome paper covering the conceptual underpinnings of soil depletion and degradation will be prepared. However, the LG can finalise its recommendations only after more knowledge is being obtained about the most relevant measurement issues.

21. Forest accounts

The LG agreed on a proposed set of standard tables for forest accounts in SEEA Volume 1. This set still needs to be supplemented by a table on carbon in timber reflecting changes in stocks. Tables on non-wood products will be restricted to flows only. More broadly, ecosystem services of forests and their valuation will be handled in Volume 2.

FAO invited Statistics Finland for a meeting with the FAO Forestry Department to discuss the current proposal and possible methods of valuation. Building on the result of this consultation an outcome paper will be prepared.

3. SEEA Volumes 2 and 3

Volume 2

The LG was in favour of an independent set up of the SEEA Volume 2 build on a classification of ecosystem assets and services rather than an incoherent collection of various issues that fall out of Volume 1. In this regard the LG recommended structuring the second volume according to the following two building blocks:

- (a) Ecosystem and ecosystem services accounts;
- (b) Valuation techniques for measuring environmental benefits and damages and their application in a national accounting context (excluding natural resource depletion which is already covered in Volume 1);

The Volume 2 research agenda needs to be developed in close consultation with the EEA and the World Bank. Looking at past experiences (the SEEA 2003), a balance between the various valuation methods (e.g. damage versus costs based) should be carefully maintained throughout the editorial process.

Volume 3

The LG group suggests Volume 3 to present a limited number of key issues such as climate change and sustainability. The main purpose of this third volume is to show how the SEEA accounts contribute to each of these main policy areas. A following section would deal with key environmental assets and demonstrate how the accounts support integrated resource management. Another section would cover other, in particular cross-cutting, applications. Key policy issues the LG discussed in relation to Volume 3 are sustainable production and consumption and climate change.

The LG considered it important to showcase in Volume 3 the analytical usefulness of hybrid accounting, for example in indicator construction (e.g. resource productivity indicators), decoupling analyses and analyses of the so-called indirect effects (e.g. total environmental requirements of household consumption as for example reflected in footprint type of indicators).

The 2008 LG progress report indicated that the most relevant policy applications of the accounts covered in Volume 1 will be developed in a working document to be simultaneously released with this volume. This is considered important to give strong guidance to the uses of the standardised accounts such as providing key indicators on sustainability and climate change policy issues.

Annex – Status overview SEEA revision Volume 1

	Issue name	Leading country/ organisation	Status
1	Harmonisation MFA	UNSD	Closed
2	Classification of physical flows	UNSD	Closed
3	Bridge tables for physical flows	Denmark	Closed
4	Renewable energy	Netherlands	Closed
5	Environmental industry	Eurostat	Closed
6	Environmental taxes	Sweden	Closed
7	Environmental subsidies	Sweden	Closed
8	Emission permits	Denmark/Netherlands	Closed
9	Natural resource management	Italy	Closed
10	Classification of assets	UNSD	Not closed
11	Classification of minerals	Denmark	Closed
12	Valuation of assets	New Zealand	Closed
13	Depletion, non-renewable resources	Australia	Closed
14	Depletion, renewable resources	Australia	Closed
15	Decommissioning costs	Australia	Closed
16	Water, artificial reservoirs	UNSD	Not closed
17	Recording of losses	UNSD	Closed
18	Valuation of water resources	UNSD	Closed
19	Land	Netherlands	Closed
20a	Soil, Conceptually	Netherlands	Closed
20b	Soil, Measurement issues	World Bank	Not closed
21	Forests	Finland	Closed