15th Meeting of the London Group on Environmental Accounting

Prepared by the London Group on Environmental Accounting
15th Meeting of the London Group on Environmental Accounting
(Wiesbaden, 30 November – 4 December 2009)

Opening
Peter Weigl, Vice President Federal Statistical Office, Germany

The Federal Statistical Office Germany supports the project on the revision of the SEEA and considers the elevation of the SEEA to the level of an international statistical standard as a very important step in response to the increasing policy demands at the national and international level. The Stiglitz-Fitoussi-Sen Commission and the Beyond GDP initiatives have clearly identified the needs to develop accounts beyond the conventional accounts. Although Germany is relatively advanced in the compilation of environmental-economic accounts, difficulties still remain in particular with regards to ecosystem accounts. The task ahead is not simple and it should be tackled in stages.

UNCEEA business
Alessandra Alfieri, United Nations Statistics Division (Secretariat of the UNCEEA)

The revision of SEEA is the highest priority in the UNCEEA work programme. The UN Statistical Commission emphasized the need for a timely revision of the SEEA considering increasing policy demands. This meeting of the London Group on Environmental Accounting will address the remaining issues on the research agenda of Volume 1 and some of the issues in Volume 2. It is an important meeting to ensure that the issues on the research agenda are addressed and resolved according to the agreed timeline. The UNCEEA and the UN Statistical Commission have expressed that they are pleased with the progress made so far by the London Group.

With regard to the funding of the project on the revision of the SEEA, several countries and international organizations have contributed or have pledged contributions to the trust fund established at the UNSD. This was also the result of the call for funds at the fortieth session of the Statistical Commission in February 2009. Sufficient funds to start with the recruitment of the editor for the first year will be available early 2010. Peter Comisari has been working as interim editor for the past 9 months funded by the Australian Bureau of Statistics. He will no longer be available to continue as the editor of the SEEA as of February 2010. The UNCEEA is fully aware of the urgency of recruiting an editor and it is looking into different options to advance with the drafting of the SEEA.

Discussion
Eurostat raised the following 3 questions regarding the SEEA revision process:
1. SEEA as a satellite account of SNA or a system in its own right?
2. Content and structure of Volume 1?
3. Relationship between the SEEA and its sub-systems?

There seems to be two views within the London Group as to whether the SEEA should continue to be seen as a satellite account of the SNA or it should be elevated to a system in its own right. Some members of the London Group expressed their concern that the close link between SEEA and SNA might get lost when regarding the SEEA as a system of its own right. Others felt that there were added benefits in having the SEEA as a stand-alone system and did not consider that this would overshadow the link between the economy and the environment which remains a key feature of the SEEA. The London Group noted this issue does not interfere with the ongoing revision of the SEEA and it will be further discussed by the UNCEEA.

The Chapter structure of the SEEA was presented to the UNCEEA and it follows closely the chapter structure of the SEEA-2003 with some chapters being combined considering that the style of the SEEA will be concise, in line with the style of other international statistical standards such as the System of National Accounts. No country examples nor compilation methods on how to populate the SEEA standard tables and accounts will be included in the revised SEEA.

The sub-systems of the SEEA, such as the SEEA-Energy and SEEA-Water, will be fully consistent with the SEEA. They will provide an elaboration and in-depth discussion of the SEEA accounts specific to a resource or type of account. The sub-systems would be useful to address specific groups that are interested in specific resources rather than the whole SEEA.

Classification of physical flows
Alessandra Alfieri, United Nations Statistics Division

Conclusions:

- The London Group agreed to maintain the classification of the SEEA-2003 of natural resources, products and residuals. Natural resources will include the natural resources and other (balancing) items that flow from the environment to the economy. Products would include flows that have a positive price thus maintaining consistency with the monetary accounts of the SNA and residuals would include all flows with zero or negative prices. These categories are mutually exclusive.

- The London Group agreed to use CPC to classify physical flows using CPC complemented with additional items when necessary. In particular, in the case of waste, it agreed
  - To classify waste with a positive value (product) using CPC to maintain consistency with the monetary flows;
  - To classify waste with zero or negative value (residual) using EWC Stat.

- The London Group recommended that special attention should be paid when using CPC for natural resources as in some cases the terminology used for natural resources may differ from the products, and thus the CPC terminology may need to be adjusted for natural resources.

- The London Group agreed with the broad definition of waste covering not only those materials that are received by a waste disposal scheme but also those materials that are discarded and that need treatment before reuse.

- The Group agreed that the definition of waste should be consistent with the Waste Framework Directive (WFD) and although the Group agreed in principle with the
definition of waste as presented in the paper, it considered that some fine tuning of the wording was needed to ensure full consistency with WFD.

- Waste will have considerable overlap with residuals: it will include flows of products (waste with positive price) and residual (waste with negative and zero price within the economy and waste that return to the environment which either are not treated or only partially treated). Waste will not cover all residuals as some residuals include also return flows that is those flows that have been treated and are no longer harmful to the environment. Equally, waste does not cover emissions to air and water.

- The London Group agreed with the definition of residuals proposed in the paper with the addition of the word “emitted” after “discarded” to ensure that also emissions into air and water are covered.

- The London Group recommended that the recording of dissipative losses should be looked at again. Spreading fertilizers on agricultural land is not a flow from the economy to the environment but rather a flow within the economy. Only the pesticides and fertilizers that are not absorbed by the plants and infiltrate into soil and ground water (emissions) should be considered residuals. This may need further consideration considering the decision of the London Group for the harvest approach.

- The London Group agreed that gross waste accounts are useful. It also recommended that net waste indicators that can be derived from the gross accounts could be developed.

**Action points**

- The subgroup of the London Group on physical flows consisting of Canada, Denmark, Germany, Italy, Netherlands, Eurostat and FAO, will assist UNSD in preparing an outcome paper outlining the decision above.

- Germany and Netherlands will provide text on the net waste accounts. Germany will provide a revised proposal on the definition of waste. Eurostat and FAO will provide detailed comments on the classifications proposed in the annex with FAO focusing on the agricultural items.

- A full documentation of the proposed classification should be put together for review by the classification expert group. Germany and Eurostat will assist in providing information on EWC Stat.

**Classification of energy products** – Information on progress made by the Oslo Group

_Alessandra Alfieri, United Nations Statistics Division_

**Conclusions**

- The Oslo Group on Energy Statistics did not consider the classifications for energy products ready for discussion by the London Group during its meeting in Wiesbaden. UNSD provided an update on the status of the work and on the process of consultation. A draft Chapter of the International Recommendation for Energy Statistics (Chapter 3) covering the classification of energy products has been discussed in a virtual meeting of the Oslo Group which closed last week. All comments on the Chapter including those provided by UNSD Environmental Economic Accounts Section are posted on the Oslo Group website. A revised draft classification will be prepared in early January for discussion at the next meeting of the Oslo Group which
will take place in Cork Ireland. The revised draft will be circulated to the London Group and the Expert Group on Classification for comments.

- The classification of energy products will serve as input in the development of standard tables for energy. It is therefore important that the London Group follows closely progress made by the Oslo Group on Energy Statistics. More broadly, the London Group may wish to comment on the scope and coverage of the data items in International Recommendations for Energy Statistics (RES) to ensure consistency with the SEEA. Two issues remain outstanding and they are the of energy resources and monetary data items IRES. The London Group members are encouraged to provide comments on IRES through their national representatives in the Oslo Group as well as the London Group to ensure that the needs of the SEEA accounts as users of energy statistics are taken into account at an early stage.

**Emission boundary and bridge tables for emissions**  
Ole Gravgard, Statistics Denmark and consultant to UNSD

The presentation raised issues related to the scope and coverage of air emissions in the revised SEEA taking into account that the air emission accounts have to inform on climate change. The London Group discussed the issues put forward in the presentation.

**Conclusions**

- The London Group reconfirmed that the emission accounts should be based on the residence principle.

- Emissions from burning biomass, controlled forest fires/grasslands unintended fires should be included in the accounts and allocated to the causing economic activity. If there is no information on the responsible economic activity, the emissions should be recorded as memorandum item.

- If emissions undergo treatment within the same establishment, only the emissions that are released in the environment should be recorded in the accounts. If there is another economic activity that treats the emission, then both the emissions that are transferred within the economy and those that go back to the environment should be recorded.

- The emission accounts should monitor the actual emissions that are released and not the secondary emissions, that is, those emissions after chemical reactions in the atmosphere takes place. These would be taken into account when discussing the impacts and the theme approach in Volume 3.

- Carbon capture and storage (CCS) should be included in the accounts as follows: if carbon is stored in a controlled storage, then it should be recorded as a flow within the economy and possible leakages will be flows from the economy (capital) to the environment. Care should be taken that these emissions are recorded separately from other emissions, possible by distinguishing the receiving media.

- Increases in carbon in cultivated and uncultivated living biomass and soils should not be included in the emissions accounts of Volume 1, except when necessary for the bridge tables to UNFCCC, see below.

- Emissions released from capital equipment and consumer durables should be included in the emission accounts in Volume 1. They should be recorded as generated from activities and households when they occur, that is distributed over the lifetime of the equipment rather than recorded at the time of disposal (or acquisition in the case of
households). These emissions are related to the stock rather than the flow and should be recorded as resulting from inventories and allocated to the relevant ISIC managing the landfill, most likely but not necessarily ISIC 38.

- Emissions from controlled landfills should be included in the emission accounts in Volume 1.
- Leakages and emissions from controlled CO2 storage should be recorded as resulting from inventories (capital) and not assigned to current economic activity.
- Emissions from cultivated forests (e.g. VOC) should be included in the emission accounts in Volume 1 as resulting from inventories (capital) and not from the forestry production;
- In general, emissions from natural processes (carbon and sulphur emissions from volcanos) are not recorded in the emission accounts in Volume 1. However emissions from nature are relevant in the context of ecosystem accounts (e.g. carbon cycles, water) to provide a full picture of the carbon cycles in Vol. 2.
- Bridge tables with IPCC should be developed for the emission accounts in both Volume 1 and Volume 2.
- The emission accounts in Volume 1 would be restricted to direct emissions from economic activity with the exception to forest for which carbon sequestration in terms of flow is also recorded in the bridge tables and in the carbon accounts, cf. below.
- Transboundary flows are presented in the emission accounts (Rest of the World entry) as memorandum item and/or in volume 3.
- Emissions from enteric fermentation, livestocks and humans should in principle be included in the emission accounts of Volume 1.

**Action points**

- Statistics Denmark will prepare a paper reflecting the discussions of the London Group in the form of a questionnaire with proposed answers. A proposal for the emission accounts tables for Volume 1 and bridge table with IPCC will accompany the paper.

**Session 2 – SEEA Volume 2**

**Valuation in the SEEA Volume 2**

_Giovanni Ruta - The World Bank_

The World Bank presented the proposal on how to organize Volume 2 in particular with regard to valuation. The approach taken in the paper is to provide a conceptual framework for valuation starting from the classification of ecosystem assets and services being developed by the European Environment Agency, continue discussing the market valuation principles and suggest what services can be valued in the context of these principles. This work is being done as part of the broader environment strategy of the World Bank. The World Bank plans to discuss this paper at a meeting to take place in Washington DC in mid April.

**Conclusions**

- The EEA expressed concerns with the approach taken by the World Bank. It recommended that the EEA approach of looking at the changes in the ecosystems conditions and cost of maintaining/restoring the capacity of the ecosystems to provide
services, in particular looking at the cost to target rather than the losses in benefits should also be reflected in the paper.

- It was considered important that a balanced view of the various approaches to valuation should be taken in Volume 2 and in the paper being prepared by the World Bank. In particular, existing experiences such as TEEB should be taken as the point of departure.

- It was considered important that the process of consultation and drafting of the valuation part of Volume 2 should be moderated carefully from the beginning to ensure that differing views are taken into account in a balanced way.

**Action points**

- London Group members are encouraged to provide their views to the World Bank proposal;
- The EEA will share a paper (Chapter of a book) presenting its views on valuation of ecosystems to the World Bank;
- The World Bank should actively engage other partners, in particular UNEP-TEEB and EEA to ensure that the paper reflects different views and thus consensus on the paper can be achieved expeditiously.
- The Chair of the London Group will flag this issue as needing careful moderation to the Chair and Bureau of the UNCEEA.

**Research agenda SEEA Volume 2 - Ecosystem accounting**

*Jean – Louis Weber, European Environment Agency*

**Conclusions**

- The presentation included elements that are relevant for SEEA Volume 2 (set up of ecosystem accounts, valuation issues) and Volume 3 (communicating the results of the accounts, weighted ecosystem quality indexes including footprint type of indicators, etc.).
- The structure of the ecological footprint seems to be aligned with the land and ecosystem accounts approach.
- The London Group considered that cooperation between the Global Footprint Network beneficial for both parties. The statistical community would benefit from the communication network of the Footprint Network while the Network would benefit from the fact that its index is derived from a credible information system.

**Action points**

- In the beginning of 2010 EEA will submit a draft list of conceptual issues dealing with ecosystem accounts, classification of ecosystem assets and services and related valuation issues. This will be used as an input to the research agenda for SEEA Vol. 2.
- An issue paper on the interrelationship between SEEA and the footprint approach was considered as useful input for Volume 3.
- Eurostat will circulate a working paper on the topic of ecosystem accounting.
- The Chair of the London Group will inform the UNCEEA that developments in the area of ecosystem accounting are expected not to fully match with the timeframe of the revision of the SEEA Volume 2.
Other issues for volume 2 of the revised SEEA
Peter Comisari, Interim editor – Australian Bureau of Statistics

Conclusions

• Bio-economic modelling does not need to be addressed in great detail but only referenced as information that it is needed for the calculation of depletion of renewable resources. Reference to it will be included in Volume 1 in the context of measuring depletion.

• Volume 2 should have a structure in its own right (valuation of degradation, ecosystem accounts) and not be seen as an unstructured volume to include ‘leftovers’ from Vol. 1. The editor should consider the most appropriate place/volume in the SEEA to present these leftovers.

• Asset (and expenditure) accounts in Vol. 1 should be presented both in current and constant prices.

• Catastrophes belong in the ecosystem accounts in Vol. 2 but will also show up elsewhere (Vol 1: other changes in volumes).

Action points

• The editor will prepare an outline for Volume 2 and recommend the appropriate place where to address the issues not resolved in Volume 1. This outline should also clarify the general principles applying to the boundary between Volumes 2 and 3

Session 3- Assets accounting, continued

Land cover classification in the SEEA revision
Jean-Louis Weber, European Environment Agency

Conclusions

• The London Group agreed to the proposed set up of land use/cover accounts and changes as proposed in the paper;

• The London Group underlined the need to have distinct classifications for land use and cover;

• The London Group agreed in principle with the proposed list of land cover categories. It requested EEA to revise the paper and present the classification criteria, definition of the classes and their coverage and a proposal for the hierarchy of the classification.

• The London Group discussed whether some of the categories in the classification should remain aggregated or should be unpacked (e.g. forest land, water, etc.) on the basis of the related asset classifications.

Action points

• An outcome paper will be produced by EEA taking into account consultation with FAO land experts expected to take place before April 2010. Once the London Group has reviewed and agreed on the proposed classification, the proposal will be submitted to the Expert Group on Classifications for its review.
Land Use Classification Proposed for SEEA
Greg X. Gong, Food and Agriculture Organization

Conclusions
- The proposal includes concordance tables and descriptions of classification categories in level 1;
- Exhaustiveness of items, especially in relation to forest needs to be better reviewed;
- Terminology does not seem consistent with the land cover items proposed by EEA;
- The London Group agreed with ‘the three level’ structure;
- Land not used should be considered as one single entry (without underlying subclasses) to ensure that the total land area is consistent with that of land cover.

Action points
- An outcome paper will be produced by the end of January taking into consideration the comments made by the London Group;
- EEA and FAO will work together to ensure that the proposals of the classifications for land use and land cover are consistent;
- Canada will provide detailed comments on the proposal. Other London Group members are encouraged to do the same.

Renewable energy, remaining issues
Maarten van Rossum, Statistics Netherlands

Conclusions
- The resource rent of renewable energy (wind, solar) is incorporated in the price of land. This is to be described in Volume 1 of SEEA rev. Additionally the topic could be included in the discussion of ecosystem services in Volume 2 and as a policy application (scenario modelling) in Volume 3.
- The London Group agreed that subsidies are not contributing to resource rents and should thus not be included in their calculation but rather be classified separately. Regarding this point the outcome paper should make clear that the SEEA is fully consistent with the SNA.
- Alternative (social) valuation methods, for example based on government tax and permits schemes may be addressed in Volume 2.
- The London Group agrees that increasing market values of natural resources triggered by gross fixed capital formation (investment in extraction equipment) reflects economic reality.
- The recording of thermal energy and tidal stream energy can be addressed in the same way as wind and solar energy. This means that concomitant resource rents will equally show up in the value of the land needed to exploit also these resources.

Action points
- An outcome paper will be produced taking into consideration the comments made by the London Group.
Carbon sequestration by forest and soil  
*Jukka Muukkonen, Statistics Finland*

**Conclusions**
- The London Group agreed to include in Volume 1 carbon accounts for changes in stocks for both cultivated and non-cultivated forest;
- Because of the lesser reliability of the stock figures, it was decided to account for the carbon in the stock of forest as part of the carbon cycle accounts in Volume 2 rather than in Volume 1.

Soil carbon accounting in the SEEA  
*Kirsty Leslie, Australian Bureau of Statistics*

Carbon is stored in soil, plant and animal matter in various stages of decay. Many factors influence the amount of carbon a soil could potentially store. Quantifying the impact of factors needs further research. Measurement is quite complicated and very labour intensive. So far there is no real evidence of comprehensive, wide scale estimates to support the inclusion of sequestration of carbon by soil in Volume 1, either in terms of stocks or stock changes.

**Conclusion**
- Complete framework to present all carbon flows (whole carbon cycle) should be included in volume 2, including carbon storages and releases purely within the environmental domain (e.g. soil, oceans, volcanic activity).
- Bridge tables linking the SEEA tables with the IPCC should be developed.

SEEA definition of assets, also in relation to the SNA boundary  
*Alessandra Alfieri, United Nations Statistics Division*

The paper describes two systems, the economy and the environment. These systems interact and overlap. It further discusses the definition of asset in the SEEA which encompasses all assets in the environment. Because of the broad scope of the asset boundary in the SEEA, it is proposed that the SEEA is considered as the system approach to the environment in the same vein as the SNA is the system approach to the economy from a statistical perspective.

While the SEEA flow accounts take the perspective of the economy and measure the interaction of the economy with the environment, the asset accounts measure the state of the environment. It is proposed that the classification of assets should potentially encompass all the elements within the environment. Ideally the classification of assets would develop from the perspective of the ecosystem and build linkages with the SNA. However this needs further investigation.

**Conclusions**
- Members of the London Group discussed the proposed definition of assets and expressed concerns with using the concept of ownership for assets that are not owned in the SNA sense, although the concept of ownership used in the definition is broader than economic ownership defined in the SNA.
• It was decided not to use the terminology economic vs. environmental assets but to speak about SNA and non-SNA assets.

Action points
• Further consultation on the proposals presented in the paper is needed.
• It was suggested to restructure the paper in the format of a questionnaire, to help guiding the discussion starting from the higher order issues (e.g. definition of asset).
• Consultation should involve not only London Group member but also members of the Canberra 2 Group. The paper will be prepared by March 2010. Comments on the current paper are very welcome.

Balance sheets for land
Recording land in the national balance sheet
Kirsty Leslie, Australian Bureau of Statistics

The paper presents the ABS experience in compiling land accounts in the national accounts balance sheet. It highlights the difficulty in valuing land given the few transactions on land. The paper describes measurements for land not only in value but also in volume and also provides an example of how estimates of land degradation of specific projects on agricultural land have been integrated in the accounts.

Balance sheet for land
Experiences from the Netherlands
Mark de Haan, Statistics Netherlands

The paper discusses the experiences of compiling land balance sheets in the Netherlands as well as a range of conceptual issues related to valuation of land.

Conclusion
• Since in principle all land in a territory is owned either privately or by the government, it should be valued. The paper argues that in certain cases the value of government owned land is already included in the value of adjacent private land. This is the case in particular for roads within urban areas. In other cases such as recreational forest land this may not be the case and a value for the land has to be explicitly determined.

• The London Group discussed the difference in terminology between depletion and degradation: depletion relates to changes in quantity while 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 caused directly by those economic activities that use land in production such as unsustainable agricultural or forestry practices.

• The London Group agreed that from a conceptual viewpoint losses in productivity as a result of soil degradation should be recorded in Volume 1 in the production account rather than in the other changes in volume accounts, similar to the recording of depletion of renewable and non-renewable resources.

• The London Group agreed in principle 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 London Group agreed that the SEEA should maintain to classify soil separately from land in the asset classification. However, the resource rent in the (monetary) current accounts of the SEEA will combine the rents of both resources. This needs further explanation in the SEEA.

**Action points**

• The London Group requested the Chair of the London Group to consult the World Bank on the feasibility of measuring soil depletion and degradation.

• An outcome paper presenting the outcome of the discussion from a conceptual point of view and presenting the outcome of the consultation on the measurement issues will be prepared by Mark de Haan.

**Water reservoirs, the borderline between produced and non-produced**

*Michael Nagy, Environment Agency Austria*

Significant losses of water are caused by increases in the surface of water in artificial reservoirs. These losses are induced by economic activity. If water in artificial reservoir is recorded as a natural resource within the environment, then these losses will only appear in the other changes in volume accounts and seen more as natural events. This will have impacts in the calculation of hydrological indicators such as water consumption, which represent the amount of water that is not returned to the inland water system as a result of economic activity and is therefore no longer a resource that can be exploited.

The paper argues that water enters the economy when it enters the artificial reservoir, that is, the reservoir is considered a container of water within the economy under the direct management and control of the owner.

**Conclusions**

• Although the London Group felt sympathy with recording water in artificial reservoirs for which both quality and quantity are under the control and management, it did not reach an agreement on the recommendation.

• The London Group discussed specific cases for example the case in which only the quantity of water in the reservoir (e.g. for hydropower) and not the quality is managed. In this case, the discharges of wastewater to the artificial reservoirs would have to be recorded as flows within the economy which seems rather counterintuitive.

**Action points**

• The London Group requested that a paper be prepared elaborating on borderline cases, providing examples of cases when this is particularly relevant (Australia – evaporation connected to human activities). It was also requested that a summary of the discussion in the context of the update of the 1993 SNA be noted in the paper.

• Canada and Brazil will contribute to the paper.

• The paper will be submitted for electronic consultation in early 2010.

**Forest accounts standard tables**

*Jukka Muukkonen, Statistics Finland*

The paper presents a proposal for a selection of standard tables for forest to be included in the SEEA. They represent a balance of the most important variables to measure and what it is possible to measure.


Conclusions

- The London Group agreed with the proposal.
- It was suggested that a table on carbon in timber (changes in stocks) should be added.
- Valuation of forest was considered important and it was suggested that a proposal be developed starting from the recommendations of the SEEA-2003. In this respect the Group advocated asset specific valuation techniques.
- The London Group agreed that ecosystem services of forests and their valuation should be discussed in Volume 2.
- The London Group noted the importance of engaging FAO Department of Forestry in the elaboration of the tables and in developing links with the FRA2010 questionnaire.

Action points

- FAO Statistics will organize a meeting with the FAO Forestry Department and Statistics Finland to discuss the current proposal and possible methods of valuation.
- Statistics Finland will prepare an outcome paper in close cooperation with FAO.

Session 4 - Environmental related transactions and economic instruments

Decommissioning costs

*Peter Comisari, Interim editor revised SEEA*

The paper spells out that the recording of remedial and terminal costs in the SEEA needs further clarification also in relation to 2008 SNA recommendations.

Conclusions

- The London Group agreed that terminal costs should be recorded as capital formation;
- The London Group agreed that consumption of fixed capital of terminal costs should be recorded over the expected service life of the asset (e.g. oil rig);
- The London Group agreed that terminal costs to store contaminants in a disused site should be recorded as fixed capital formation. They should be recorded either as terminal costs or as land improvement depending on circumstances;
- The London Group recommended that in case in which the imputed depreciation is not followed by the actual capital formation (i.e. the terminal costs) the initial terminal costs ‘asset’ is removed via other changes in volume of assets.

Action points

- The interim editor will prepare an outcome paper reflecting the recommendations of the London Group.
- The outcome paper will be circulated for comments also to the community of national accountants.

Subsidies

*Nancy Steinbach, Statistics Sweden*

Earlier the London Group took decisions on the adoption of environmental taxes and environmentally motivated transfers in Vol. 1. The paper also discussed Potentially Environmental Damaging (PED) subsidies to be included in Volume 2 or 3.
Conclusions

- The London Group agreed on selection criteria and definitions for environmentally-motivated transfers, which include not only subsidies but also investment grants and social transfer in kind whose purpose is the protection of the environment.

Action points

- The London Group identified the need to develop a classification list of environmentally-motivated transfers. A proposal will be developed and circulated to the London Group in April 2010 taking into consideration discussions at the Eurostat task force in February 2010.

Emission permits

Report on progress of the OECD/Eurostat Task Force on Emission Permits in the National Accounts

The chair informed the London Group on the progress made by the OECD/Eurostat task force on permits. Although the Task Force did not reach a consensus on the preferred recording of the permits in the SNA, it was reiterated that the permits will be recorded as taxes. The main two options under consideration include (a) the split asset option, where the permit's value is divided between a financial asset and a non-financial asset, the latter representing the change in value of the permit as it is traded; and (b) the financial asset option, where the issuing government retains an ongoing liability which varies according to the market price of the permit. In the former case the tax to be recorded should be valued at the amount originally paid for the permit, whereas in the latter case the tax should be valued at the prevailing market price of the permit at time of emission. Given the observed fluctuations in the market price of permits, it is possible that these amounts are quite different.

The Task Force will submit its report to the Inter-Secretariat Working Group on National Accounts in early 2010.

Tables for physical flows of emission permits

Thomas Olsen, Statistics Denmark

A set of tables were presented on flows and stocks of quantities of permits to be adopted in SEEA Volume 1.

Conclusions

- The London Group approved the proposal and suggested a few changes.
- The entry labelled “consumption” in the table should be labelled households.
- The distinction between ETS and non-ETS permits was considered inappropriate for an international standard;
- Net and gross positions are well reflected in the proposed balance sheets.
- Balance sheets will be presented first by institutional sector and then by industry. This table is important to show changes (in net positions) and RoW relationships.

Action points

- Statistics Denmark will provide an outcome paper taking into consideration the changes proposed by the London Group.
• The editor will consider how to link tables on permits (in volume) to other SEEA accounts (e.g. hybrid tables).

**Emissions as taxes or property income**  
*Ole Gravgard, Statistics Denmark and Mark de Haan, Statistics Netherlands*

Both papers reflect on the possibilities to record emissions permits either as taxes or as property income considering the broader asset boundary of SEEA as compared to the 2008 SNA.

**Conclusions**
- Crucial in this discussion is to what extent tradable permit schemes are really distinct from environmental taxes. The group reflected two opposite positions:
  - A government determines ownership of the atmosphere as a carbon sink via a cap
  - The government issues permits as another way to collect taxes.
- The London Group agreed to follow the SNA tax solution in the SEEA Volume 1 while exploring other options in Volume 2. An outcome paper will be prepared by Statistics Denmark and Statistics Netherlands providing a balanced overview of both positions and the conclusions of the London Group.

**Joint implementation (JI) and Clean Development Mechanisms (CDM)**  
*Mark de Haan, Statistics Netherlands*

The paper provides background information on JI and CDM. It further illustrates the problems of recording the permits from these mechanisms as taxes. This means that, depending on the solution taken on the recording of these permits on the context of the SNA (i.e. split asset option or financial asset option), the surrender of these permits (and related costs) will not appear in the production account of the polluter.

**Conclusions**
- The London Group decided to follow the SNA for all matters related to recording of permits even if this may lead to under representation of permits in the SEEA (and related costs) derived from JI and CDM.

**CEPA and CRUMA, decisions taken by the EGM on Classifications** (for information)  
*Aldo Femina, Italian Institute of Statistics*

The London Group was updated on the results of the consultation with the Expert Group on International Economic and Social Classifications. The consultation with the Group was undertaken as recommended at the 14th meeting of the London Group in Canberra. At that meeting, the London Group decided to combine the CEPA and CRUMA in one single classification of environmental activities and expenditures (CEA).

Some members of the London Group questioned combining the two these classifications.

**Conclusions**
- The London Group decided not to reopen the decision taken in Canberra to combine both classifications. However, concerns expressed could be noted in the outcome paper to be submitted for global consultation.
Action points
• The outcome paper will be put on the internet after the London Group meeting and London Group members will have an opportunity to comment on the paper before it is submitted for global consultation. The Eurostat Task Force in February 2010 will also discuss the issue.

Session 5 – SEEA Volume 3

Climate change accounts
Sjoerd Schenau, Statistics Netherlands

The paper explores the relevance of the SEEA in the context of climate change policy on the basis of the DPSIR model. The paper identifies the following area as important:
• Expenditures related to climate change mitigation
• Adaptation expenditures
• Land and ecosystem accounts

Conclusions
• The London Group emphasised the importance of this work in explaining to the users the potential of the SEEA in support of climate change policy.
• The value added of the accounting approach should be better emphasised
• Input Output analysis (indirect environmental requirements) was considered by the London Group as highly promising from a policy perspective and should be further developed in the paper.
• The link of SEEA to adaptation needs to be further explored.

Action points
• Netherlands, Canada and Australia will revise the paper exploring the relevance of the SEEA for climate change policy (timeline to be decided).
• The need for a second less technical paper for dissemination to non-statistical audience will be flagged to the UNCEEA for further consideration.

Session 6 – Outline SEEA Volume 1

Proposed standard tables for volume 1 of the revised SEEA
Peter Comisari, Interim editor

A proposed set of standard tables for the four main building blocks of SEEA Volume 1 was presented to the London Group. It was suggested to focus the discussion at the meeting on the general scope of the proposal. Comments on details will be dealt through a written consultation of the London Group.

The London Group questioned the purpose of standard tables. The following comments were made to better understand its purpose in the SEEA:
• They represent the conceptual framework and expose the logic of accounts.
• The tables do not necessarily provide details but instead reflect the scope of accounts at high aggregation levels.
• The standard tables should indicate potential data needs.
• The standard tables are not necessarily the recommended tables for international data collection programmes.
• Tables selected as SEEA standard tables should be implementable.

1. Physical flow accounts

Conclusions
• The London Group suggested keeping the physical supply-use tables simple although comprehensive.
• The tables should explicitly address the various material flow categories: natural resources, products and residuals.
• The tables should explicitly expose supply-use accounting identities.
• A column entry for the environment should be included as a destination and as an origin item.
• The tables should take into consideration existing tables proposed in international documents and national practice.

2. Hybrid accounts

Conclusions
• Uses of hybrid accounting should especially be exposed in Volume 3 (e.g. IO-analysis, Decoupling-decomposition analyses).
• Volume 1 should highlight (mostly in text) the crucial importance of maintaining consistency between the physical and monetary dimensions of the SEEA.
• It was suggested to include at least one hybrid table that explicitly highlights how these dimensions are consistently brought together, discussing the underlying relationships between physical and monetary accounts (e.g. unit prices, linkage between taxes and surrender of permits).
• A (more detailed) table on emission accounts was considered needed to highlight the importance of more detail (in terms of flow descriptions) in identifying the (potential) environmental consequences of various residual categories.

3. Monetary accounts

Conclusions
• The linkage of the SEEA monetary accounts to the SNA framework is still missing. The London Group suggested using SNA transaction coding to identify these linkages.
• Depletion adjusted current accounts are still missing.

4. Asset accounts

Conclusions
• The London Group advocated a simple to understand mapping of details of the various natural resource accounts.
• A London Group proposed a distinction in the tables between renewable and non-renewable assets.
Action points

- The editor will take into consideration the London Group recommendations in the second version of tables used for the electronic consultation.
- The editor will also take into consideration proposals earlier made in the 15th London Group meeting on e.g. tables on forest accounts and tradable emission permits.
- Comments from the London Group to the editor are very welcome (deadline: before Christmas) in the process of updating the tables.

Future actions

Chair of the London Group

The Chair expressed his appreciation of the constructive and fruitful collaboration with the London Group. The Group has been very successful in advising the UNCEEA on the SEEA revision. The importance of the London Group in this context is well acknowledged by the UNCEEA and the Statistical Commission.

Mark de Haan was re-elected for another term of three years as the Chair of the London Group.

The outcomes of the 15th London Group meeting will be reflected in update of the London Group progress report that was submitted in June 2009 to the UNCEEA.

The EEA and the World Bank are expected to take the lead in setting up a research agenda for the SEEA Volume 2.

The involvement of the London Group in Volume 3 seems highly desirable also in close collaboration with the indicator communities such as the Ecological Footprint Network. The Chair will consult UNSD on the next steps to be taken by the London Group in the SEEA revision process in early December. The Chair will report back to the London Group the outcome of this consultation.

The London Group considered the absence of an editor early 2010 as a great concern that may delay the SEEA the revision process.
### List of actions

<table>
<thead>
<tr>
<th>No.</th>
<th>Action item</th>
<th>Responsible</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prepare outcome paper on classification of physical flows and eventual submission to the Expert Group on Classifications</td>
<td>UNSD, Destatis, CBS Eurostat and FAO</td>
<td>End of March 2010</td>
</tr>
<tr>
<td>2.</td>
<td>Prepare outcome paper on emissions boundary issues and proposed bridge tables for air emissions accounts with IPCC</td>
<td>Statistics Denmark</td>
<td>End of March 2010</td>
</tr>
<tr>
<td>3.</td>
<td>Provide paper to World Bank on approach to valuation of ecosystems</td>
<td>EEA</td>
<td>January 2010</td>
</tr>
<tr>
<td>5.</td>
<td>Prepare paper on valuation for discussion at a meeting in April</td>
<td>World Bank</td>
<td>End of March 2010</td>
</tr>
<tr>
<td>6.</td>
<td>Draft list of issues on ecosystem accounts, classification of ecosystem assets and services, and related valuation issues – for input to volume 2 research agenda</td>
<td>EEA</td>
<td>End of Jan 2010</td>
</tr>
<tr>
<td>7.</td>
<td>Prepare issue paper on relationship between the SEEA and footprint</td>
<td>Global Footprint Network with input from others</td>
<td>End of March 2010</td>
</tr>
<tr>
<td>8.</td>
<td>Set out principles distinguishing between Volumes 2 and 3 of the revised SEEA</td>
<td>Editor</td>
<td>January 2010</td>
</tr>
<tr>
<td>9.</td>
<td>Update the list of left-over of volume 1 issues and recommend where to deal with them.</td>
<td>Editor</td>
<td>January 2010</td>
</tr>
<tr>
<td>10.</td>
<td>Prepare outcome paper on land cover classification.</td>
<td>EEA after consultation with FAO</td>
<td>End of March 2010</td>
</tr>
<tr>
<td>11.</td>
<td>Provide detailed comments on the existing land cover classification proposal</td>
<td>Statistics Canada</td>
<td>Jan 2010</td>
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<tr>
<td>12.</td>
<td>Prepare outcome paper on land use classification</td>
<td>FAO</td>
<td>Jan 2010</td>
</tr>
<tr>
<td>13.</td>
<td>Prepare outcome paper on renewable energy</td>
<td>CBS</td>
<td>April 2010</td>
</tr>
<tr>
<td>14.</td>
<td>Develop bridge tables linking proposed SEEA information on soil carbon with IPCC</td>
<td>ABS, in consultation with FAO and Statistics Finland</td>
<td>April 2010</td>
</tr>
<tr>
<td>15.</td>
<td>Restructure paper on SEEA definition of asset in the format of questionnaire for consultation with London Group and Ex-Canberra II Group</td>
<td>UNSD</td>
<td>April 2010</td>
</tr>
<tr>
<td>16.</td>
<td>Prepare outcome paper on conceptual underpinnings of soil depletion/degradation</td>
<td>CBS in consultation with the World Bank</td>
<td>April 2010</td>
</tr>
<tr>
<td>17.</td>
<td>Prepare paper (and submit for electronic discussion) on the treatment water reservoirs– within the economy or not</td>
<td>Environment Agency Austria, ABS, UNSD</td>
<td>April 2010</td>
</tr>
<tr>
<td>18.</td>
<td>Prepare outcome paper on standard tables for forests in consultation with FAO-STAT</td>
<td>Statistics Finland FAO-STAT</td>
<td>April 2010</td>
</tr>
<tr>
<td>19.</td>
<td>Outcome paper on decommissioning costs</td>
<td>ABS</td>
<td>January 2010</td>
</tr>
<tr>
<td>20.</td>
<td>Prepare outcome paper on decommissioning costs, including a proposal on a classification/list of issues</td>
<td>Statistics Sweden, Eurostat</td>
<td>March 2010</td>
</tr>
<tr>
<td>21.</td>
<td>Prepare outcome paper on tables for flows of emission permits</td>
<td>Statistics Denmark</td>
<td>January 2010</td>
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<tr>
<td>22.</td>
<td>Propose how to link tables on permit flows to other SEEA standard tables (e.g. hybrid accounts)</td>
<td>Editor</td>
<td>Mid Feb 2010</td>
</tr>
<tr>
<td>23.</td>
<td>Prepare outcome paper on the recording of emission permits with two options: as taxes or as property income</td>
<td>Statistics Denmark and CBS</td>
<td>End of March 2010</td>
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<tr>
<td></td>
<td>Task</td>
<td>Responsible Parties</td>
<td>Due Date</td>
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<tr>
<td>23</td>
<td>Post outcome paper on CEA on the London Group website</td>
<td>UNSD, ISTAT</td>
<td>January 2010</td>
</tr>
<tr>
<td>29</td>
<td>Revise CBS paper on the SEEA and climate change</td>
<td>CBS, ABS, Statistics Canada</td>
<td>April 2010</td>
</tr>
<tr>
<td>24</td>
<td>Provide detailed comments to editor on proposed standard tables for the revised SEEA volume 1</td>
<td>London Group, all</td>
<td>December 2009</td>
</tr>
<tr>
<td>25</td>
<td>Prepare a new draft set of standard tables for the revised SEEA volume 1</td>
<td>Editor</td>
<td>Mid Feb 2010</td>
</tr>
</tbody>
</table>
| 26 | Prepare a progress report to the UNCEEA and its Bureau highlighting the following:  
• need for ecosystem valuation in Volume 2 to reflect different views  
• Align timeline of EEA programme of work on ecosystem accounts with that of Volume 2  
• Need for a non-technical paper on climate change | Chair, London Group                    | January 2010    |