System of Environmental Economic Accounting

Report of the 30th meeting of the London Group on Environmental Accounting

Washington D.C., United States of America
30 September - 03 October 2024

Summary and Conclusions

1. The London Group on Environmental Accounting (LG) is a city group, established in 1993 to serve as a platform for environmental accounting practitioners to discuss and work towards the conceptual and methodological development of environmental-economic accounts. The members of this group, comprising experts from national statistical offices and international organizations, meet annually to discuss research topics and issues related to the advancement of science and application of the SEEA in countries around the world.

2. The 30th meeting of the LG took place on 30 September to 03 October 2024 in Washington D.C. and was hosted by the U.S. Bureau of Economic Analysis (BEA). It was attended by approximately 60 participants from 17 countries, mostly from national statistical offices, and also international organizations and academia.

3. The main focus of the meeting was around issues related to the update of the SEEA Central Framework. The LG had formed several collaborative groups to prepare papers that specifically address issues relevant to the update. These papers were presented at the meeting with ample room for in-depth discussions. It was agreed that after the meeting these drafts will be refined taking into accounts the received feedback. The work of the LG will contribute to the work of the task teams established by the UNCEEA for the SEEA CF Update. LG experts are invited to express interest in joining these task teams.

4. The London Group discussed the need to review its mandate in light of the recent review of the mandate of the UNCEEA and possibly change its name to more fully reflect the scope of the London Group, which is not solely on environmental accounting but environmental-economic accounting.

5. This year's meeting marked the 30th Anniversary of the group since its first meeting in March 1994 in London. A celebratory session was held to reflect on the critical role of the London Group in developing the existing SEEA standards, to look back at snapshots from the past 29 previous meetings, and to consider the LG's future roles.

6. All of the documents related to the 30th meeting of the LG, including the agenda, papers and presentations, are available on the meeting website.

7. The next LG meeting will take place in Tallinn, Estonia, hosted by Statistics Estonia. It was agreed that the SEEA CF will again be the main focus in the agenda and that the meeting is an ideal setting to review and discuss on-going work by the SEEA CF update task teams.

Session Overview

I. Opening Session

8. The 30th meeting of the LG was opened with the opening addresses from the Chair of the LG and representatives of the host organization:
   - Sven Kaumanns, Chair of the London Group and representative from the Federal Statistical Office of Germany, welcomed participants to the meeting, thanked the BEA for

hosting this year's meeting of the LG and introduced the agenda for the four-day meeting. He discussed changes, challenges and chances of the LG going forward, such as its position as strong methodological counterweight to more policy-oriented SEEA committees and the group's role in the SEEA CF update process.

- Scott Wentland, Senior Research Economist at the BEA, discussed the role of the London Group in providing inputs to the SEEA CF update process.
- Vipin Arora, Director of the BEA, welcomed the participants and stressed the importance of establishing statistical standards to answer the pressing and crucial environmental issues, such as climate change mitigation and adaptation and related risks with consistent and sound data.
- Dennis Fixler, Chief Economist of the BEA, highlighted some of the methodological challenges on the list of issues tackled by the SEEA CF update process, in particular the consistency with national accounts.

9. Ilaria Di Matteo, United Nations Statistics Division (UNSD), provided an update on the work of the Committee of Experts on Environmental-Economic Accounting (UNCEEA) over the last year according to the five workstreams of the UNCEEA. The UNCEEA mandate is currently reviewed. Potential changes, to be finalized 2025, include the formalization of a high-level steering group, the election of a Co-Chair and the elaboration of the relationship with the LG.
10. Sjoerd Schenau, chair of the SEEA CF Technical Committee, presented a detailed outline of the SEEA CF update process, which was mandated by the UNSC in March 2024 and is planned to run until March 2028. The list of issues to be tackled, subject to the feedback of the global consultation in summer 2024 and review by the UNCEEA, will go to the UNSC for endorsement in March 2025. A project management framework has been set up, which foresees that task teams will be established by the end of 2024 to address the relevant issues and prepare guidance notes. It was noted that position and issue papers prepared by the LG will provide direct input to these task teams, for which LG members are invited to join. The physical meetings of the LG are deemed an ideal platform for in-depth discussions of the SEEA CF update issues and the work of the task teams.

II. Session 1: Treatment of human-induced flows within the environment

(Chair: Sjoerd Schenau, Statistics Netherlands)

11. Matthew Chambers (BEA) presented the position paper on human induced flows. Kaia Oras (Statistics Estonia) presented an example how these can be measured in practice, including the work by FAO on LULUCF emissions/sequestration as a potential further specification of those human induced flows.
12. The London Group welcomed the paper and approach taken to include human induced flows in the physical flows as descried in the SEEA CF. There were however several comments and suggestions for further improvement of the paper.
    - The framework for human induced flows should be positioned within the general PSUT framework of the SEEA CF, and several examples are to be described within the specific modules, for example the inclusion of LULUCF in the air emission accounts. There were also suggestions for additional human induced flows to be included, namely forest fires.
    - It was also noted that the distinction between short and long cycle carbon is separate from the discussion of human induced flows. It was recommended that peat be considered long-cycle.

- The question was raised whether underground storage should be treated like a landfill (part of the economy). A question was raised whether there is an economic service and an ecosystem service component to carbon storage (with a follow-up question about whether deep underground reservoirs should be considered part of an ecosystem). It was suggested that perhaps a new industry/product should be created if/when underground carbon storage is occurring in sufficient quantities.
- There was a comment if and how these flows could be connected to the activities of indigenous people.
- Some countries (e.g. ISTAT) have conducted tests for the allocation of LULUCF emissions to air emission accounts. These inputs should be integrated either into new version of the document within the coming year or into the relevant document of the SEEA CF update task teams.

13. The further refinement of the paper will be taken up by the group working on this topic and in close cooperation with the new task team will feed into the SEEA CF update process.

III. Session 2: Treatment of emission trading systems and issues in taxes and subsidies accounts

(Chair: Aldo Femia, Istat)

14. Sven Kaumanns (Federal Statistical Office Germany) presented the draft position paper on Environmental Taxes and Transfers (Subsidies). Matthew Chambers (BEA) presented the position papers on Accounting for Emission Trading Schemes in SEEA. The group agreed that, where necessary, the SEEA CF should establish different accounting guidelines than those in the SNA to better reflect environmental and economic interrelationships.
15. On the draft position paper on environmental taxes and transfers:
    - The group agreed that it would create additional use to allocate monetary flows to the period of the environmental impact represented by a physical flow and to the sector inducing the impact. This could be done alongside the results of the accrual approach of the SNA, which allocates the flows to the period when the tax basis arises.
    - On the topic on taxes and those transfers that should support environmentally friendly behavior, the group noted the necessity to complete the SEEA CF with more detailed information on the time and the sectors to which the tax or transfer should to be assigned. The group concluded, that probably a more detailed and flexible classification for the taxes are required, e.g. to better reflect climate impact of fossil energy. The authors were asked to elaborate on these aspects in more detail.
    - On the special case of climate change mitigation subsidies, the group concluded that they should be treated as part of Environmental Subsidies and Similar Transfers (ESST) and should follow the same rules. They are part of the climate change mitigation expenditures of the government.
    - Regarding those transfers, that could lead to environmental harmful behavior (PEDS) the group recognized, that they could be captured by a similar definition as environmental taxes. However, some members expressed their strong concern, that the support of non-state-of-the-art technology – even if better as the current standard – could in these cases be counted as support of environmental harmful behavior. Thus, it might be useful to calculate and present the overlap between PEDS and ESST.

- The group agreed, that tax abatements are neither subsidies nor transfers in general but it could be relevant to present them alongside. The group recognized, that tax abatements may not only lead to environmental harmful behavior but could as well be an incentive to support environmentally friendly behavior. Some tax abatements are implicitly captured in effective carbon rates.

16. The paper on Emission Trading Schemes proposed to treating them as non-produced non-financial assets.[1] This approach was welcomed and deemed a promising starting point. The accounting of the certificates should be in physical units and they should be monetarized at their current market prices when values are needed. The group asked to enlarge the scope of the paper to cover additional types of certificates.
17. The authors are requested to update the both draft position papers accordingly.

IV. Session 3: Natural Capital

(Chair: Alessandra La Notte)

18. Simon Schürz (Federal Statistical Office Germany) presented the issue paper on Natural Capital, raising challenges and issues related to the introduction of natural capital in the SNA 2025 and a potential alignment or harmonization of natural capital, environmental assets and natural resources in the SEEA CF update.
19. The group noted that a reaction to the 2025 SNA asset classification is required to ensure consistency between the frameworks and that there should be a simple and transparent alignment of terminology and definitions to achieve clarity for the compilers and users of accounts. The paper will be refined and used as an input for the task team, where the work on this issue will continue once the 2025 SNA has been finalized regarding any outstanding issues regarding natural capital and natural resources.
20. The session included two further presentation that are closely linked to the issue:
    - A “Sudoku”-approach to visualize and guide the integration of SEEA CF, SEEA EA and National Accounts, which was deemed very helpful by the group.
    - A discussion of sustainability reference values in SEEA highlighted the importance of SEEA EA condition accounts to assess strong sustainability and links to SDGs, the GBF and other frameworks, such as Planetary Boundaries and ESGAP.

V. Session 4: SEEA Applications

21. The session featured two thematically very different presentations on:
    - Producing statistics on consumption-based greenhouse gas emissions using the FIGARO database. Future projects to improve and extent the international databases for extended input-output analysis were discussed.
    - Using a new comparative grid to guide the compilation/use of ecosystem service accounts that are explicitly compliant to the SEEA EA accounting standards and can be used for the most complex and broad set of using including the integration with national accounts.

[1] In the 2025 SNA payments for emission permits are recorded as prepaid taxes on production, with taxes recorded at the time of surrender, at issuance prices.

VI. Session 5: Monetary values connected to ecosystem services

(Chair: Sven Kaumanns, Federal Statistical Office Germany)

22. Aldo Femia (Istat) presented the issue paper on monetary values connected to ecosystem services. The paper shows an alternative approach to pricing ecosystem services, i.e. monetary valuation by attributing exchange values, based on characterizing and accounting for different monetary values dependent on ecosystem services in satellite accounts. Examples from South Africa and Estonia (by Kaia Oras) were presented.
23. The approach was deemed an interesting and pragmatic concept to highlight the importance of ecosystem services and map values relevant for ecosystems' management. It was agreed that the concept should be applied to concrete examples that fully implement such satellite accounts.
24. Some comments expressed doubts about potential overlaps between values and the limited use of these accounts, in particular macroeconomic modelling/integration with national accounts.

VII. Session 6: Issues in ecosystem accounting and forest accounts

(Chair: Nova Sharkey, CSO)

25. This session included several issues in ecosystem accounting and forest accounts. The presentations discussed the use of earth observation data, citizen science, and the power of harnessing public interest through effective communication. The group discussed the identification of new data sources and the development of innovative approaches and surveys to answer questions about recreation. The presenters stressed about the importance of collaboration and enthusiastic engagement in the development of ecosystem accounts. The group got some insights into the potential of integrating ecosystem accounts into planning and land management, and heard about very interesting work being done in the valuation of ecosystem assets.
26. The compilers of these accounts are using innovative approaches to address the challenges faced, and this session highlighted the need for collaboration, sharing of experiences, and knowledge transfer in this area.

VIII. Session 7: Climate change mitigation and adaptation expenditures

(Chair: Scott Wentland, BEA)

27. Scott Wentland (BEA) presented a summary of the position paper on climate change mitigation and adaptation expenditures, which provided background on the topic, definitions considered by the working group, and recommendations for moving forward regarding the SEEA-CF Update.
28. The Climate Change Mitigation and Adaptation (CCMA) position paper had four recommendations for the London Group to consider, which the SEEA-CF Update task team may find as a useful starting point:
    - Carefully define purpose and prioritize specificity in definitions,
    - Carefully consider the term 'impact' (or remove reference to it),
    - Carefully consider recommended data sources and definitional compatibility,
    - Provide very clear guidance on major expenditures.

29. P Bhanumati (IMF) presented the work on the Data Gaps Initiative (Recommendations 6 and 7), which includes defining and measuring climate change expenditures. Background, proposed definitions/categories, and initial CCM and CCA estimates for the G7 were presented and discussed.
30. The discussion from the floor engaged on numerous topics, including: definitional issues (like how to delineate primary vs. secondary purpose, changing products over time and time-series comparability), how integrate definitions with COFOG and GFS standards, how to or whether to evaluate impact, issues concerning major expenditures like EVs and public transportation, how risk reduction might be quantified.
31. Overall, the discussion illuminated the need for more work on the topic of defining and measuring climate change mitigation and adaptation expenditures, where there are numerous issues to be resolved for a Task Team that takes up this topic for the SEEA-CF Update.

IX. Session 8: Treatment of water in the SEEA CF

(Chair: Michael Vardon, ANU)

32. Two papers on water accounting were presented to the London Group. The first was a position paper that addressed a number of issues related to water accounts for the update of the SEEA Central Framework. The second paper focused on water accounting on small islands. The London Group congratulated the authors on the preparation of the documents.
33. There was a wide-ranging discussion. The London Group noted that:
    - Clear definitions of water terms should be included in the SEEA-CF update and that it would be useful to have concordance tables, or similar, to increase understanding between the accounting, ecosystem service, and water communities. E.g. by linking to exiting hydrological terminology
    - There was support for treating water in reservoirs should be treated as a produced asset and updating the tables to reflect this new treatment of water in reservoirs (e.g. the table explanations, and in particular the description of the new water storage service and subdivision of the water supply industry (ISIC 36) to water storage and water distribution, should be clear). In addition:
        - The SUT should be placed in context of the broader types of water accounts and clearly note the abstractions of water from different water sources were included (the example in the paper only mentioned surface water)
        - Simplified SUT tables should be developed to enable more countries to produce water accounts
    - It was recommended that text is added to the SEEA Central Framework clarifying the treatment of water losses in storage and distribution as a use of water by the water supply industry. However, it was noted that the treatment of losses was a broader issue in the update of the SEEA Central Framework and that the treatment of water losses could not be considered in isolation
    - It was recommended that water quality accounts are included in the SEEA Central Framework. The format of the accounts and related explanation can be based on those presented in SEEA-Water and SEEA Ecosystem Accounting ecosystem condition accounts.
        - It was noted that there were new data sources on water quality from remote sensing.

- It was noted that the methods from the SEEA Ecosystem Accounting could be recognised as suitable to determine monetary values of water abstractions and assets in the SEEA Central Framework and that alternative representations of water values are recognised and described in the Central Framework update

34. The London Group agreed that while it would be useful to update SEEA-Water to (1) help understand and integrate the relevant parts of the SNA, Central Framework and Ecosystem accounting, (2) provide more guidance on values and valuation, and (3) develop material on how water accounting can be used for water policy and management, that this was not a priority at present.
35. The London Group concluded that position paper was nearly ready and should be updated as soon as possible to reflect the discussions at the meeting. Comments were welcomed and should be provided before 31 October 2024. The London Group Bureau would review the updated paper and finalize as soon as possible for further consideration in the update process of the SEEA Central Framework.

X. Session 9: Soil accounts in SEEA CF

(Chair: Wesley Burnett, USDA)

36. An issue paper on soil accounting was presented by Wesley Burnett (USDA), describing the work on a pilot account to measure soil health in the U.S. The presentation described the challenges to derive indicators, valuation and data sources. The group agreed, that the paper outlines a promising approach to comprehensive soil accounts, with relevance for both the SEEA CF and EA. Further inclusion of the topic in the LG research agenda will depend on a potential inclusion in the final issue list of the SEEA CF update.

XI. Session 10: Poster session

37. The poster session included presentations on policy use of ecosystem accounting, accounting for marine ecosystem services and an input-output price model for simulating the effects of carbon prices. The poster session sparked interesting and focused discussion and the format was found useful for future meetings.

XII. Session 11: SEEA Data and Applications

(Chair: Alessandra Alfieri, IMF)

38. This session on different SEEA applications featured a wide range of topics. The presentations on relating natural capital to regional growth, reconciling natural capital valuation approaches, a SEEA EA application to aquatic resources, integration of statistical data and earth observation, indicators for physical and transition risk and data on climate finance sparked interesting discussions and highlighted the wide relevance of SEEA accounts.

XIII. Session 12: Baseline and counterfactuals in SEEA

(Chair: Nils Brown, SCB)

39. Nils Brown (SCB) and Simon Schürz (Federal Statistical Office Germany) presented a stocktaking and categorization of the use of baselines and counterfactuals in SEEA

40. Three distinct cases were identified in the discussion:
    - Counterfactuals: Counterfactual scenarios as noted to assess climate effects of exports is separate from other areas, and not necessary to consider in any revision process
    - Projection of discount rate and future prices are necessary assumptions about future in order to apply the net present value approach to environmental assess and can be treated separately from baselines.
    - Baselines, as applied in e.g. EGSS, EPEA, certain ecosystem accounts, environmental taxes etc. Where it is relevant to consider how baselines should be determined in each case separately accordingly, feeding into the process of the update of the SEEA manual where appropriate.