

## 30<sup>th</sup> Meeting of the London Group on Environmental Accounting Call for Papers and Participation

The 30<sup>th</sup> meeting of the London Group on Environmental Accounting (LG) will be hosted by the U.S. Bureau of Economic Analyses from 30 September to 03 October 2024 in Washington D.C., United States of America.

The main focus of the 2024 LG meeting will be the support of the SEEA CF update. During the 29<sup>th</sup> meeting in Pretoria in September 2023, the LG already identified and discussed important issues and challenges for the update of the SEEA CF. Now, concrete suggestions for the issues touched by the update should be presented, discussed and subsequently proposed by the group. In preparation, focused papers shall be prepared for the meeting. Cooperation of several LG members for drafting these papers is welcome and encouraged. For each of the main topics, the LG Bureau will provide an online space for collaboration.

The topics are grouped (I-III) by the maturity of the discourse, in addition to other methodological or case study papers (IV). Environmental Accounting experts are invited to express their interest in collaborating to the drafting of papers on the following issues (see attached annex for a more detailed description of each topic). Contributors will be listed as authors and, as such, invited to the meeting.

- I. Position papers propose concrete solutions for the topic at hand. The goal is that a finalized position papers for each topic is endorsed by the London Group and, in turn, feed into the SEEA CF update process. The LG Bureau has identified a coordinator for each topic, responsible for curating the paper (see Annex). The following four position paper topics are proposed:
  - Climate change mitigation and adaptation
  - Treatment of emission trading systems and related issues in tax and subsidies accounts
  - Treatment of water in the CF
  - Treatment of human-induced flows within the environment
- II. Issue papers focus on analysing the challenges and set of potential solutions. Issue papers are the basis on which alternative approaches are discussed by the group to, ideally, progress further towards a future position paper. The following five issues paper topics are proposed:
  - Baselines and counterfactuals
  - Modelling in SEEA
  - Monetary values connected to ecosystem services
  - Natural capital
  - Potentially environmental damaging subsidies
- III. Exploratory papers centred on new issues of exploratory character. As such, they may review the literature, study exemplary cases and identify advantages and challenges connected to the issue. The following two exploratory paper topics are proposed:
  - Scope for spatially explicit SEEA CF accounts
  - Treatment of energy in harvested biomass in energy and Agriculture, Forestry and Fisheries (AFF) accounts

In addition to the topics above, the LG will, as usual, devote some time to discuss selected papers on other SEEA topics that the Bureau deems to substantially contribute to the advancement of environmental accounting. Accepted papers will be presented at the meeting.

- IV. Other methodological or case study papers on other SEEA topics that contribute to the advancement of environmental accounting. Submissions will be evaluated by the LG Bureau and accepted papers will be presented at the meeting, followed by discussions with the group.

Thus, if you would like to contribute, please state your area of interest for collaboration papers (I-III) or submit an abstract for your proposed paper (IV) via email to [seea@destatis.de](mailto:seea@destatis.de) by 19 January 2024. Please note that the meeting will be an in-person attendance event.

## Annex: Issue List

### I. Position papers:

#### Climate change mitigation and adaptation

(Coord. Scott Wentland, BEA)

Climate change adaptation and mitigation are becoming increasingly important topics in the political debate. While mitigation expenditures are currently to some limited extent part of the Environmental Protection Expenditure Accounts, they are not separately reported as such. Adaptation expenditures on the other hand have not yet been included in SEEA CF. With the coming update, SEEA CF may include recommendations on how to establish account for expenditures, subsidies and taxes related to climate change mitigation and adaptation in an internationally consistent way. The propositions put forward by the LG should include the following issues:

- Definition of climate change mitigation and adaptation (expenditures)
- Treatment of expenses that cannot be clearly or fully attributed to climate change mitigation and adaptation
- Choice of appropriate classification(s) and classification rules
- Review of the relevant literature
- Potential data sources
- Consistency and integration with existing accounts for environmental activity.

#### Treatment of Emission Trading Systems and related issues in tax and subsidies accounts

(Coord. Sven Kaumanns, StBA)

Emission trading schemes (ETS) are an increasingly common policy instrument to limit total emissions with a cap and trade approach. While they are more and more widespread around the world, systems may appear in relatively complex varieties, thus increasing the need for a clear internationally consistent accounting framework. The treatment of ETS is also related to issues in other environmental activity accounts like inconsistencies in the accounting periods or sector allocations of physical and monetary flows. In preparation of the SEEA CF update, the LG should propose accounting rules that address the following issues:

- Treatment of ETS as tax, financial instruments and/or subsidy
- Consistency and differentiation with/from the SNA and the physical flow accounts
- Information on both government revenue and financial costs for economic units
- Complex issues of tax incidence (seller, emitter), tax base (different CO<sub>2</sub>-sources) free certificates, multinational schemes (import/export, border adjustments), accounting period (sale, redemption) and sector allocation.
- Consistency and integration with other accounts (PEDS, energy accounts)

#### Treatment of Water in the CF

(Coord. tba)

With increasing scarcity around the globe, the supply and use of water in both physical and monetary terms becomes more and more relevant. To address this demand for information in the environmental accounts, there are several aspects of accounting for water that may warrant an update of the current chapters in the SEEA CF. The LG may therefore draft a position paper addressing, among others, the following issues:

- Water as a produced asset (artificial reservoirs)
- Accounting for water quality
- Water valuation
- Consolidation of the treatment of water in SEEA CF, SEEA EA and the SNA

## Treatment of human-induced flows within the environment

(Coord. Sjoerd Schenau, CBS)

Emissions from land use, land-use change and forestry (LULUCF) are one example of human-induced flows within the environment. They reflect how human activity impact land that would typically function as a carbon sink, leading to lower sequestration or higher emission of greenhouse gases. These processes are not fully reported in the air emission accounts (AEA) as they lie at or beyond the production boundary. Other examples include so-called “unused extractions” in material flow accounts. This is material relocated within the environment because of human activity without entering the economy. From a conceptual perspective, comparable questions are materials placed in landfills or as construction material. Currently the SEEA CF has no recommendations for showing the flows when these materials re-enter the environment (e.g. when management of a landfill ends).

Due to their growing importance for climate mitigation but also biodiversity targets (nature restoration, protection of natural sinks), an update of SEEA CF may include recommendation to integrate such (additional) information within its accounts. These should include the following issues:

- Review of previous literature and the production boundary
- recommendation how to treat human-induced flows within the environment in general
- Treatment of LULUCF emissions under intensive and extensive management
- The temporal dimension of accounting (LULUCF emissions due to current versus past production activities)

## II. Issue papers:

### Monetary values connected to ecosystem Services

Chapters 8 to 11 of the SEEA EA, which are not part of the international statistical standard, state that ecosystem services should be valued based on exchange values. Since for most ecosystem services there are no observed market transactions, the values have to be estimated. A number of valuation methods are used for such an estimation. These methods provide values that, according to SEEA EA, constitute the monetary valuation of ecosystem services (ES). Under a different approach, discussed at length in the London Group, this interpretation is contested, and these values are seen as the values of goods and services that are connected to (depending upon) ecosystem services but not as these services’ exchange values. Issues with their use, for which recommendations and solutions are required, include the following:

- Multiple approaches for individual services: formulating a typology of methods, accounting for a multiplicity of values connected to the same service
- Issues with the aggregation of monetary values across services and/or ecosystem assets
- Communication of (multiple) monetary values from different approaches

### Natural Capital

Depending on its definition, natural capital encompasses a much broader range of natural resources, potentially including ecosystem assets as defined in SEEA EA and resources covered in SEEA CF (mineral, energy, renewable and biological resources). Given the increasing interest in mainstreaming measures of natural capital, it is necessary to study:

- A consistent definition of assets and natural capital in the SEEA
- The conditions under which nature can be considered capital
- The relation between asset accounting in SEEA and other concepts of natural capital
- Overlap/differentiation with natural capital in the 2025 SNA Revision
- Methods of asset valuation

### Baselines and Counterfactuals

Environmental-economic accounting often involves considering hypothetical situations when assessing relevant physical or monetary quantities. These counterfactuals serve as baseline to interpret the observed quantities. Examples are:

## 30<sup>th</sup> Meeting of the London Group on Environmental Accounting 2024 – Call for Papers

- Baselines for regulating ecosystem services (e.g. bare land scenarios for soil erosion, local climate, air filtration)
- Estimation of tax abatements/indirect transfers for potentially environmental damaging subsidies
- Modelling emission effects/footprints of imports and exports

Baselines are often applied implicitly and are currently not consistently addressed in SEEA CF and EA. Therefore, an issue paper may discuss the following topics:

- Review of the use of baselines in SEEA
- Standardized recommendations/principles for baselining and benchmarking, reporting of assumptions
- Recommendations on transparent communication and sensitivity analysis

### Modelling in SEEA

While many SEEA core accounts rely on reporting actual data structured and accounted for in a standardized approach, the use of models is often necessary, where data cannot be directly observed due to various reasons or where accounts are combined for analysis. Examples include:

- Biophysical modelling in ecosystem accounting
- Accounting for environmental assets (valuation, assessing stocks, asset life)
- Footprint analysis

An issue paper may discuss the following topics:

- Review of the use of models in SEEA
- Recommendation on quality/minimum criteria for models used in SEEA accounts, for example calibration, validation, sensitivity analysis
- Recommendation on dealing with risk and uncertainty in statistical models
- Discussion what should be included in the statistical framework and what may constitute an application

### Potentially Environmental Damaging Subsidies

The topic of Potentially Environmental Damaging Subsidies (PEDS) in the current version of the SEEA CF is not sufficiently developed. In order to prepare a comprehensive update the LG should provide recommendations on

- The scope of the account and clear definitions and boundaries
- Review of existing approaches
- Going beyond effective carbon rates (explicit and implicit transfers)
- Methodological challenges
- Integration with other environmental activity accounts but also SNA and physical flows
- It is expected that this topic has strong overlaps with the one on baseline definitions as well as the one on ETS and related issues.

## III. Exploratory papers:

### Scope for spatially explicit SEEA CF accounts

With the recent increase in availability of georeferenced or spatially explicit datasets, advancements in earth observation data and the simultaneous emergence of the spatially explicit SEEA EA, it is worth to explore the potential to present selected accounts within the scope of SEEA CF in a spatially explicit manner. Among others, the following accounts would constitute a suitable starting point:

- Air emission accounts
- Water accounts
- Carbon accounts

Possible overarching topics include:

- A review of data sources and existing examples
- A review of methodologies to break down accounts to a higher spatial resolution
- Assessing the feasibility and relevance for different SEEA CF accounts.

### Treatment of energy in harvested biomass in energy and AFF accounts

Plants capture energy from the sun, and providing this energy to cattle and humans is one of the primary purposes of cultivation (and of harvesting non-cultivated food). At present, energy flows within primary agricultural products are not part of the energy accounts, making them not relevant in terms of assessment of the energy capture efficiency of agriculture. In view of the increasing importance of agriculture in the energy supply, and the possible competition between food and non-food uses of crops, investigations and considerations should be made to discuss whether and how these flows can and should be included in the energy accounts.