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**Technical Committee on SEEA Central Framework (Area B1)  
Summary of activities**

Paper prepared by the Chair and Secretariat  
of the Technical Committee on SEEA Central Framework

*(for discussion)*

# Possible update of the SEEA Central Framework

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## 1. Introduction

Eleven years ago, in March 2012, the SEEA Central Framework (SEEA CF) was adopted as an international statistical standard by the United Nations Statistical Commission (UNSC). Since its adoption, global implementation of the SEEA CF has gained broad momentum. According to the 2022 global assessment, 92 countries are now implementing elements of the SEEA CF.

In addition, the increasing uptake of the SEEA CF has resulted in new user demands from different users communities (e.g. climate change, including the G20 Data Gaps Initiative 3, biodiversity including BIOFIN<sup>1</sup>, circular economy, Sustainable Development Goals (SDGs), sectoral data, including ocean accounting), new conceptual and implementation issues and new statistical insights. Furthermore, advancement has been made on several interim classifications that are included in the SEEA CF to better reflect the environment (e.g., CEF), but also on international classifications that are used in the SEEA CF (e.g. ISIC, CPC, SIEC etc.). Several other SEEA or SEEA-related manuals and guidelines have been published or finalized, such as the SEEA-Energy, SEEA Agriculture Forestry and Fisheries (SEEA AFF), the Statistical Framework for Measuring the Sustainability of Tourism (being finalized shortly), and last but not least, the SEEA Ecosystem Accounting (SEEA EA) manual.

The question of advancing the SEEA CF research agenda and possibly updating the SEEA CF was first discussed at the UNCEEA meeting of June 2019 and again at the UNCEEA meeting of June 2021. At the last meeting of the Committee there were mixed opinion on the scope of the revision, and it was considered important to focus on the implementation, especially of the SEEA Ecosystem Accounting. For this reason, it was decided to continue working on the SEEA CF research agenda and to postpone the discussion on the update of the SEEA CF to 2023, to ensure its coherence with the ongoing update of the System of National Accounts 2008 (2008 SNA) and other macroeconomic standards and international classifications, as well as to address other emerging issues. In addition, the update of the Government Finance Statistics and Monetary Finance Statistics manuals will be launched in 2024 and a proposed calendar of updates of international standards and classifications is currently being developed as part of the update process of the SNA.

This document seeks the UNCEEA's view on the in-principle update of the SEEA Central Framework, its scope and timeline. Details on scope and timeline can only be defined subject to availability of resources.

This document describes the main reasons why further work on some conceptual issues is warranted, present the updated issue list and a way forward prioritizing this issue list. Experience has been that progress in advancing the SEEA CF research agenda without a clear revision process has been very slow with only very few issues being addressed. In this context, some options on the scope, timeline and modality are provided on the way forward.

## 2. Why update the SEEA CF ?

Here we describe in more detail the main reasons why further work on the SEEA CF research agenda and a possible update of the SEEA CF in the coming years would be appropriate and needed. As can

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<sup>1</sup> The biodiversity finance initiative

be deduced from this and the next sections, it is foreseen that the possible update of the SEEA will focus primarily on chapter 4 on monetary flow accounts, whereas for the other chapters the focus will be on the consistency with the SNA and alignment with the SEEA EA (chapter 2).

## 2.1 General user needs

The statistical community needs up-to-date statistical standards and guidelines to produce reliable, high quality, internationally comparable statistics. Adequately meeting user needs is the primary reason why the SEEA needs regular updates. Implementation and application of the SEEA has been ongoing since 2012 and there is a need to integrate the user experiences into an up-to-date SEEA CF that reflects lessons learned from implementation. Improved clarity of the text in the SEEA CF would help increase implementation of the accounts and ensure that country implementation of the accounts is up-to-date and consistent.

In addition, updating the text of the SEEA CF would provide the opportunity to bring on board the various communities that have been working on developing methodologies independently and develop bridges with their work. Several communities (e.g., BIOFIN, circular economy initiatives, various climate change initiatives including sustainable finance, etc.) are developing or advancing methodologies that overlap with one or multiple aspects of the SEEA CF. To ensure that national statistical offices and line ministries can streamline production and avoid duplication of effort, there is a need to align and build bridges between related initiatives and frameworks.

## 2.2 Responding to new policy demands

Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honor citizens' entitlement to public information<sup>2</sup>. New policy demands are increasingly revealing critical data gaps with respect to the environment and the economy, which the SEEA Central Framework has the potential to fill. While the SEEA CF is a conceptual framework, it needs to respond to the policy demand by integrating information from different sources and including agreed concepts and classifications that allow the derivation of key data or indicators. In other cases, the methodology may have to be adjusted to reflect recent advances (e.g. integrated framework for environmental activity accounts developed by Eurostat and updated treatment of emission trading schemes proposed in the SNA update). Below we describe some key policy areas where this is currently the case.

- **Climate and energy policies:** The SEEA CF can be made more user friendly by indicating which parts are relevant to climate change and energy policy (including highlighting some key indicators) and how the SEEA CF can complement existing indicators and data systems used for established processes (e.g., IPCC guidelines). In this context also the issues of quarterly accounts and climate finance could be addressed.
- **Circular economy (CE):** Over the last few years it has been shown that the SEEA CF is an appropriate framework to provide the underlying physical and monetary data needed to promote circular economy. This should be more clearly articulated in the SEEA CF, both regarding the basic framework (PSUTs) and key indicators that can be derived for circular economy.

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<sup>2</sup> Principle 1, Fundamental principles of Official Statistics (<https://unstats.un.org/unsd/dnss/gp/FP-New-E.pdf>)

- **Natural resources and biodiversity:** Although biodiversity is primarily the topic for SEEA EA, there is also a clear link to the SEEA CF, namely regarding accounts for timber, fish, biological resources, but also regarding related expenditures and transfers as well as environment pressures. A more clearly articulated link between the SEEA EA and the SEEA CF could facilitate the use of the accounts for the Kunming-Montreal global biodiversity framework. In addition, there are some crosscutting topics that could be included in the SEEA CF.
- **Environment related expenditures:** While this is by no means a new policy demand in and of itself, experience with the policy making community has shown that policy makers are often more interested in categorizing expenditures in terms of impact, rather than primary purpose. Reconciliation of impacts versus the primary purpose of expenditures could help make the SEEA CF more relevant and useful to policy makers in finance and planning ministries. An important policy demand in this area is, for example, the establishment of a classification of climate change mitigation and adaptation expenditures.
- **Beyond GDP movement:** The Beyond GDP movement has been growing rapidly. The Secretary-General of the United Nations, in *Our Common Agenda* called for new measures of progress to complement GDP and acknowledged the role of the SEEA in “transforming the way in how we view and value nature<sup>3</sup>. The movement has focused on moving beyond headline economic indicators to incorporate information on social and environmental aspects of wellbeing and sustainability. There is a large opportunity for the SEEA to play an important role here, particularly given its links with the SNA. SEEA together with SNA were recognized as the part of the building technical foundation to go beyond GDP in the recently released *Our Common Agenda Policy Brief* by the UN Secretary General<sup>4</sup>. The inclusion of text in a revised SEEA CF on integrated headline indicators could provide strong policy relevancy.

### 2.3 Work on the SNA research agenda

At its 52<sup>nd</sup> session the UNSC discussed and endorsed the work programme to update the SNA by 2025. A three-pronged approach has been envisaged for the update of the 2008 SNA: (a) undertaking technical research on prioritized and other national accounts issues, including better supporting sustainable development from a macroeconomic perspective; (b) engaging in a broad consultation on the issues relating to the thematic areas of globalization, digitalization, and well-being and sustainability; and (c) ensuring overall consistency within the system of economic statistics, taking both a macroeconomic and microeconomic perspective.

The update of the SNA resulted in a list of issues grouped in three priority areas, with different task teams addressing specific issues<sup>5</sup>: (1) globalization, (2) digitalization and (3) well-being and sustainability. The last topic includes several of the issues in the SEEA CF research agenda<sup>6</sup>. Some key issues being addressed include the principle of valuation, the expansion of the asset boundary to include renewable energy, the generation of electricity by households (solar power etc.), clarification

<sup>3</sup> <https://seea.un.org/news/beyond-gdp-seea-contributions-statistical-framework>

<sup>4</sup> <https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-beyond-gross-domestic-product-en.pdf>

<sup>5</sup> The task teams include experts from the Balance of Payments and International Investment Position Manual, the Government Finance Statistics Manual, the Manual on Monetary and Financial Statistics, the SEEA, the International Standard Industrial Classification of All Economic Activities/Central Product Classification and other economic statistics-related manuals.

<sup>6</sup> <https://unstats.un.org/unsd/statcom/50th-session/documents/BG-Item3f-2019-NationalAccounts-Supplement-v3-E.pdf>

of the boundary between produced and non-produced biological resources, the treatment of provisions and payments for use of the environment including carbon schemes.

Over the past few years, the Task Team on Well-being and Sustainability has made good progress and has prepared several guidance notes and papers for topics that are also relevant for SEEA, including refining economic ownership of natural resources, accounting for biological resources, recording of emissions permits, recording of provisions, recording of depletion and accounting for renewable energy resources. This was done in close collaboration with the SEEA CF TC. These notes have undergone global consultations and are in the process of being finalized. To maintain and clarify the link between SNA and SEEA, the work on the SNA update should be incorporated in the possible update of the SEEA CF, such that the updated SEEA will reflect changes agreed as part of the updates of SNA and Balance of Payments Manual.

## 2.4 Alignment with SEEA EA

In March 2021 the revision process of SEEA EA came to an end with its adoption by the UNSC. The new SEEA EA provides many new insights which also have an impact on the SEEA CF. To ensure that the SEEA CF and SEEA EA are fully aligned, the text of the SEEA CF needs to be subsequently updated.

First, the relation between SEEA CF and SEEA EA needs to be made clear upfront. The current text in the SEEA CF about ecosystem accounting, which was written while the first SEEA EA was still being developed, is inadequate and outdated. Second, there are several areas and topics where the SEEA CF and SEEA EA overlap or are closely related. Examples include land accounting, soil accounting, valuation of biological resources and renewables, environmental expenditures and changes in ecosystem condition, natural inputs and provisioning services, and residual flows and regulating and maintenance services. All these topics should be well described and explained in relation to the two frameworks. Third, the SEEA CF and SEEA EA should describe how accounts from both documents could be integrated. For example, how the physical PSUTs could relate to the physical supply and use tables for ecosystem services, or how the monetary activity accounts from SEEA CF could be linked to the extent and condition account of SEEA EA. Integration with the accounts of the SNA may also be considered linking to the general alignment with the SNA as discussed above.

Finally, there are some areas of accounting, for example accounting for the atmosphere or allocating environmental pressures to ecosystem type, which are not developed in either the SEEA CF or the SEEA EA and would benefit from a joint consideration of the conceptual and methodological issues.

## 3. Issues for the SEEA CF update

### 3.1 Issue list

The SEEA Central Framework Technical Committee has prepared a list of issues that can be addressed in an update of the SEEA CF, to clarify scope of an update of the SEEA CF and the amount of work that will be needed to realize this. Table A in the annex provides an overview of the issues, including a very short description. This issue list is based on the existing SEEA CF research agenda, issues that emerged from the revision of the SEEA Ecosystem Accounting (SEEA EA) and ongoing SNA update, input from the last London Group meeting in Bonn (October 2022) and input from the SEEA CF TC.

The issues have been grouped into four broad categories:

- A. **Classifications:** SEEA includes several (interim) classifications that have been / need to be revised. In addition, SEEA uses several international classifications that are being revised.

- B. **Changes/ improvements to SEEA CF:** these include issues that propose some changes to the SEEA CF or improvements / extensions of certain topics.
- C. **Linking SEEA CF - SEEA EA:** these issues cover crosscutting issues and aim to better align the two frameworks.
- D. **New topics / extensions:** these include some new topics and sometimes extend the current scope of what is included in the SEEA CF.

The issue list contains both issues that may require substantial work, but also issues that can easily be incorporated into the text of the SEEA CF without any additional research. Note also that work on some issues has already been finalized, work on other issues is ongoing, and work on some issues still has to start. As can be deduced from the issue list, it is foreseen that the possible update of the SEEA will focus primarily on chapter 4 on monetary flow accounts, whereas for the other chapters the focus will be on the consistency with the SNA and alignment with the SEEA EA (chapter 2).

In principle, the issue list does not include issues that are primarily related to implementation of analyses, as these should not be described in the SEEA CF manual. However, a last category in the list has been added for issues relating to applications, which would be items for a future update of the SEEA applications and extensions manual (which currently is not foreseen).

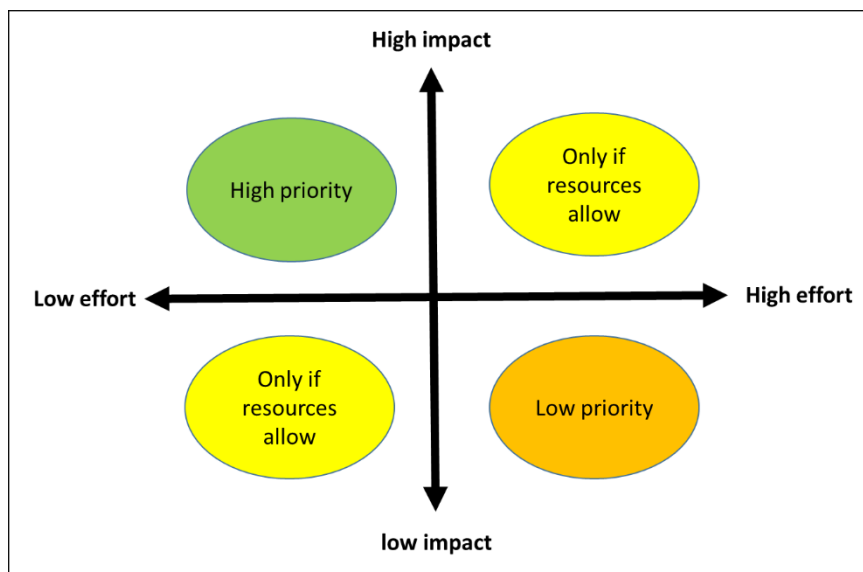
### 3.2 Prioritization

Prioritization of issues is required, as the issue list is already quite long and will probably still get longer but it is not expected that we can solve all these issues in a period of 3-4 years. Below are some criteria considered for the prioritization:

- **Policy impact.** The SEEA needs to be policy relevant, so how relevant is this issue to meet policy demand.
- **Conceptual impact.** How important is addressing this issue with respect to solving an important conceptual issue and ensuring alignment with SEEA EA and SNA?
- **Complexity.** How complex is the issue and whether it can be resolved within the 3-to-4-year timeframe?
- **Time requirement.** For each identified issue, consideration will be given how much time and capacity will be required to address this issue.

Based in these criteria all issues can be grouped into four categories (see also figure below):

1. **Issues with a high impact, which require a relatively low effort/time:** these issues should be given the highest priority.
2. **Issues with a high impact, which require relatively much effort/time:** here we need be very selective what we can manage and make clear choices what we can take up based on available resources
3. **Issues with a low impact, which require a relatively low effort/time:** Although issues may take relatively little time to resolve, we need to be selective and only take up issues that take very little (or no additional) time to solve.
4. **Issues with a low impact, which require relatively much effort/time:** these issues should be given the lowest priority.



In a first effort, the issues have been categorized accordingly (see annex). The approach and the result still need to be further elaborated and discussed with the SEEA CF TC.

## 4. Project management framework

The possible update of the SEEA CF will need a project management framework, to clarify the project coordination, the roles and responsibilities of the different stakeholders, the timeline and budget. Below a first setup of the project management framework is described regarding the general approach, proposed outputs and timeline, required meetings, main roles in the update process and additional project support.

### 4.1 Approach

Under the auspices of the UNCEEAA, the SEEA Central Framework (SEEA CF) Technical Committee, with UNSD as secretariat, will lead the management of the SEEA CF update process. The role will include establishing and endorsing a detailed program of work, appropriate decision-making structures and processes, securing relevant resources, identifying consultants and reviewers as required, and leading engagement with the multiple stakeholders. The work includes the development of a strategy for the update of the SEEA CF including the identification of financial resources to fund an editor on a part-time basis for a few years over the duration of the update process.

In terms of process, the SEEA CF update will be undertaken under the auspices of the Committee of Experts on Environmental Economic Accounting upon receiving the mandate from the UN Statistical Commission. The issues list will undergo a global consultation as well as the guidance notes prepared for each issue and the final document will also undergo a global consultation.

### 4.2 Proposed output and timeline on the SEEA CF update process

The output will consist of the following:

- a) A number of standalone technical notes/issue papers to resolve key issues from the update issue list and reflect latest advance of the methodological development.
- b) Consecutive drafts of the updated SEEA CF handbook, with a final draft by Dec 2028 for submission to the 2028 meeting of the Statistical Commission

Proposed timeline:

UNCEEA to discuss the SEEA CF update process	June 2023
Preparatory work to develop a work plan/strategy and identify funding mechanism for the update of the SEEA CF	2023-2024
UNSC decision on the SEEA CF update	March 2024
Global consultation on SEEA CF issue list	Q3/Q4 2024
Drafting process – issue papers	2025
Drafting process – issue papers / writing new text for SEEA CF	2026
Global consultation; update of draft	2027
Finalized for adoption at UNSC	March 2028

### 4.3 Meetings related to the SEEA CF update

The SEEA CF update requires a set of meetings to support both the technical input and outreach activities. The main meetings are:

- Technical meetings of the SEEA CF TC and working groups to advance the SEEA CF update issues.
- Meetings of the London Group
- Topical webinars and expert meetings and workshops as appropriate

### 4.4 Main roles in the update process

It is suggested that there will be five main roles to be filled in relation to the work

- a) UNCEEA and its Bureau: The UNCEEA and its Bureau provide overall vision, coordination, prioritization and direction on the governance of the SEEA standards. The Bureau will oversee the SEEA CF update process and be responsible for securing required resources for the update.
- b) SEEA CF TC: The SEEA Central Framework (SEEA CF) Technical Committee supported by UNSD will lead the management of the SEEA CF update process.
- c) Working Groups (to be discussed): Working groups, with appropriate expert representation from different communities, will be established under the auspices of the SEEA CF TC in close collaboration with the London Group. A lead for each of the working group will be selected. The working groups are responsible to undertake technical research and to draft issue notes to address the issues identified and propose solutions for the updated SEEA CF. The working groups will be supported by UNSD and the editor of the SEEA CF.
- d) London Group on Environmental Accounting: The London Group will prepare issues papers for the update of the SEEA CF and develop the agenda for its annual meetings to facilitate the methodological discussion and support the SEEA CF update process.
- e) Editor: The editor for the SEEA CF update will be responsible for preparing the revised text of the updated SEEA CF. More in detail the editor will be responsible to:
  - support the work of the working groups, in particular coordinating the technical input, ensuring consistency and adequacy of their work to satisfy the requirements of statistical rigor needed for SEEA CF
  - draft substantive discussion papers to feed into the work of the working groups, technical meeting and support the external expert review process



- ensure coherence, the editor will need to participate in each working group and be involved in the development of discussion and issues papers, thus providing a single set of eyes over the discussions
- provide substantive input and coordination of the technical meetings of the working groups as well as other related bodies
- prepare documents for the expert and global revisions of the papers and final drafts of the SEEA CF and incorporate the comments received into the final drafts.
- support the preparation of project correspondence

#### 4.5 Supporting consultants and project support

Pending resource availability, the supporting consultants are responsible for preparing the guidance notes and provide textual input for the updated SEEA CF on as need-basis.

In these governance arrangements, UNSD as secretariat of the UNCEEA is the main source of logistical and administrative support for the project. Among the tasks that the secretariat undertakes are the following:

- a) Maintenance of the project website
- b) Preparation of project correspondence with the Statistical Commission and national statistical offices
- c) Logistic and other support to the SEEA CF Technical Committee, Working groups and editor

A trust fund will need to be set up for the project and managed by a selected member of the UNCEEA (to be discussed). In that capacity, it will facilitate contractual arrangements for the editor, supporting consultants and the organization of their travel if any.

### 5. Way forward

In order to determine the way forward, the UNCEEA may wish to consider the in principle update of the SEEA Central Framework, its scope and timeline. Details on scope and timeline can only be defined subject to availability of resources. Large parts of the SEEA CF are in good shape and the text does not warrant a full-blown revision. Accordingly, an update of the SEEA CF manual would only entail to updating a limited amount of text. A limited revision of SEEA CF would include:

- a. incorporation of the current and new work on SEEA CF research agenda
- b. incorporation of the work on the (overlapping) issues with the SNA research agenda
- c. an up-to-date description of the relationship with SEEA EA which addresses links and overlaps
- d. making SEEA CF more up to date to meet some important policy needs.
- e. there will be a clear focus of updating chapter 4 on monetary accounts.

This approach thus entails that not all issues now on the list will be dealt with during the updating process, but only a prioritized limited number, with a focus on issues related to chapter 4 on monetary accounts.

The advantage of this approach is that the SEEA CF will be up to date with other SEEA manuals / standards (e.g., SEEA AFF, SEEA energy) and other international statistical standards and recommendations (e.g., SNA, BPM, ISIC, CPC, COFOG, etc.). Besides, the SEEA CF will become more suitable for many policy applications and policy needs and aligned with the new methodological

development on the SNA research agenda. However, this approach will still require investment of resources by the SEEA community and fund-raising effort is needed to finance the update.

An alternative approach expressed by some members is to produce and publish technical notes instead of undertaking the update process. This approach entails continuing working on the SEEA CF research agenda and publishing the outcomes, once approved by the SEEA CF TC and UNCEEA, as technical notes on the SEEA website as a clarification or amendment of the SEEA CF. This approach is similar to the SNA News and Notes process, where methodological and conceptual clarifications have been published as amendments to the SNA. The advantage of this approach is that less resources are required, and the output can be published step by step once it is finalized. However, this approach has not worked in the past and there are very few reasons to expect that it will. In addition, working piecemeal on specific issues will not result in a fully harmonized manual and the updated notes will not have the same status as the text in the SEEA CF.

The proposed way forward, as described above, is the further prioritization on the items on the research agenda, to organize some dedicated subgroups with key experts working in the field and to start working on prioritized issues, and to identify funding and resources. Further there is a need for the Bureau to discuss issues of funding. The UNCEEA is asked to reflect on how best to bring this process forward.

#### **Questions for the UNCEEA**

1. Does the UNCEEA agree with the revised issue list?
2. Does the UNCEEA agree that prioritization of the issue list is needed using the approach suggested?
3. Does the UNCEEA agree in principle with the update of the SEEA Central Framework pending the identification of resources?
4. Does the UNCEEA have any suggestions regarding the project management framework, including the proposed timeline pending on the funding availability?

**Annex A: overview of research issues for SEEA CF, categorized into five different groups.**

<b>Table 1: Short description of the issue list for the potential SEEA CF update</b>		
<b>A. Classifications</b>		
A1	Classification of environmental functions (CEF)	Inclusion of the Classification of environmental functions (revised CEA)
A2	Residuals	In the SEEA CF 2012 there is no single classification of all residuals. A complication arises from the fact that the various groups of residuals overlap.
A3	Environmental assets	The asset classification is also an issue in the SNA update. There is a need for a harmonized asset classification for the SNA/SEEA with from a SEEA perspective the inclusion of natural resources / ecosystems / renewable energy resources etc.
A4	land use/ land cover	Revision of the interim land use and land cover classifications
A5	International classifications used in SEEA	Currently the revision of ISIC, CPC, SIEC and COFOG is ongoing. This will have an impact on SEEA, although (probably) not on the SEEA manual itself
<b>B. Changes/ improvements to SEEA CF</b>		
B1	Link to important policy themes	Text of SEEA CF could be improved by making more explicit links between the accounts and important policy themes like climate change mitigation, circular economy and nature/ biodiversity
B2	Integrated framework for monetary accounts	Chapter 4 of SEEA CF describes environmental activity accounts as separate modules (EPEA, EGSS etc.) that differ regarding accounting structure, scope, valuation of adapted goods etc. The integrated framework for monetary accounts brings all related transactions and transfers together in a comprehensive and coherent framework including some newly developed terminology / definitions for environmental products and activities.
B3	Biological resources	--> Issue for the SNA update, with (possible) implications for the SEEA CF
B4	Economic ownership / depletion natural resources	--> Issue for the SNA update, with (possible) implications for the SEEA CF
B5	Treatment of Emission trading schemes	--> Issue for the SNA update, with (possible) implications for the SEEA CF
B6	Treatment of renewable energy resources as assets	--> Issue for the SNA update, with (possible) implications for the SEEA CF

B7	Distinction between taxes and services	--> Issue for the SNA update, with (possible) implications for the SEEA CF
B8	EW MFA	There are several differences in treatment between EW-MFA and the physical supply and use tables, as described in SEEA CF. SEEA CF now provides a short text on these issues (section 3.3.6). Over the last years some work has been done to solve these issues.
B9	Description and uses PSUTs	PSUTs are the overall framework for organizing data on physical flows in SEEA. Regarding Circular Economy policies, there is an increased interest in using PSUTs to describe also flows within the economy which warrants a more elaborate description (maybe revisiting some of the material in the SEEA 2003)
B10	Waste accounts	Description of the waste accounts could be further elaborated and improved, including the description of recycling
B11	Treatment of losses	There are a number of issues related to losses which are not fully described in the SEEA CF and which need to be further clarified to assist countries in implementation. These include energy losses and water losses.
B12	Water as a produced asset (artificial reservoirs)	This was also an issue at the SEEA CF 2012 revision, we need to see if we have to revisit this issue.
B13	Linkage/integration of environmental activity accounts (Ch.4) and the asset and flows accounts (Ch.3 &5)	Accounts are now described all separately, where the links and integration of the different accounts is one of our key selling points. This should be described / highlighted more.
B14	Environmental tax abatement	Environmental tax abatements Are an important policy instrument in many countries. These do not reflect a direct transaction but should be described in more detail.
B15	Treatment of processing abroad	To introduce more clear explanations and recommendations in SEEA CF (and/or related guidelines) on the conceptual treatment of processing abroad when the processing involves acquisitions of raw material and the sale of processing goods abroad.
B16	Terminology	To review and provide more clear explanations on a selected set of terminologies in the SEEA CF that may result in confusion. For example, in the context of MFA and waste accounts, expression on final consumption may results in confusion when describing the material flow process.
B17	Production boundary	To revisit the boundary of economy and environment and to provide more clear explanations and recommendation on the treatment of borderline cases such as landfill and mine environment.
B18	Treatment when there is deviation between SNA and SEEA	Monetary allocations do not match to physical flows, for example on time allocation of emission permits.

D19	Own account production	To introduce more clear explanations and recommendations on the conceptual treatment of on own account production of goods and services and their allocation to economic units. An example, is the own-account production of electricity by solar panel where there is no clear guideline on such act
<b>C. Linking/ aligning SEEA CF - SEEA EA</b>		
C1	Overview links and overlaps SEEA CF - SEEA EA	Chapter 2 needs to include a broader overview of the links and overlaps between SEEA CF and SEEA EA (based on what is already in SEEA EA)
C2	Valuation	--> incorporate insights from SEEA EA and SNA update
C3	Natural inputs - provisioning services/ abiotic flows	There is a strong link between natural inputs - provisioning services/ abiotic flows which should be described in detail
C4	Air emission accounts / LULUCF	Emissions related to LULUCF are not part of the SEEA CF air emission accounts. These emissions may be (partly) included in the accounts. In addition, carbon sequestration may be included in the accounts (by extending the use table).
C5	Water quality accounts	Water quality is part of the SEEA EA condition accounts, but could also possibly be included as a separate account (in asset chapter) in SEEA CF.
C6	Carbon account	The carbon account has strong links both with the SEEA EA and SEEA CF accounts. It should be investigated whether a) the carbon account should (also) be included in SEEA CF and b) if this warrants a more elaborate description (e.g., carbon in the economy).
C7	Accounting for soil resources	This is a clear link with the SEEA EA condition account. Do we still need this account in SEEA CF and if yes, should it be revised?
<b>D. New topics/ additions to SEEA CF</b>		
D1	Quarterly air emission and other SEEA flow accounts	A short description on the inclusion of air emission and other SEEA flow accounts such as water and energy flow accounts on a quarterly basis to the SEEA CF could be added
D2	Physical produced assets	A key characteristic of SEEA is that it looks as physical stocks and flows. Yet, physical asset accounts for produced assets are not part of SEEA CF. There is an increasing interest in these kind of stocks in view of the Circular Economy (recycling potentials, etc.).
D3	Recording residual flows to ecosystem type (pressure account)	PSUTs in the SEEA CF include one column for the environment. For some residuals it is interesting to record where they end up, i.e., in which ecosystems. This would be a pressure flow account (which is not included in the SEEA EA)

D4	Extension of the scope of environmental activities	Environmental activities include only environmental protection and resource management activities. It could be investigated if and how to extend the scope to include for example also adaptation (see also next topic D5) and environmental disaster management activities.
D5	Climate adaptation expenditure / transfers	Climate adaptation expenditure / transfers are not in scope regarding the definition of environmental protection / resource management. It should be investigated if these environmental related transfers can be added and what should be the approach in the context of the discussion on the scope of environmental activities (see discussion topics D4)
D6	Potentially environmentally damaging subsidies/ related transfers	Environmental harmful subsidies are not described in SEEA CF (being out of scope). However, accounting practices and SNA terminology can be used to include these in SEEA as there is a clear policy interest in these transfers.
D7	Sustainable finance	There is increased policy interest for recording sustainable finance. This is a new and also complex topic, and we need to investigate if it is feasible to capture this into an accounting framework (i.e., sector accounts).
D8	Carbon capture and storage	Carbon capture and storage is the end-of-pipe solution to reduce or stabilize carbon emissions from economic processes, but removal of carbon emission through such economic process by industry is currently not recorded in the SEEA Central Framework (e.g., air emission accounts). Thi issue is related to issue C4
<b>E. Applications of SEEA</b>		
E1	Thematic presentation of the accounts	Improve description on policy and analysis related to SEEA that can be framed and presented in specific environmental themes that are cross-cutting across SEEA CF and EA. Such environmental themes including forest, carbon and ocean
E2	Environmental-extended input-output analysis	incorporate the new insights and improve description on environmental-extended input-output analysis taking into account of recent advance in this area such as FIGARO
E3	Circular economy	There is increased policy interest for measuring circular economy. Explicit reference to link the circular economy paradigm to the SEEA Central Framework is recommended.

## Annex B: First attempt to prioritize the issues based on impact and effort

### High impact, low effort

A1	Classification of environmental functions (CEF)
B1	Link to important policy themes
B2	Integrated framework for monetary accounts
B3	Biological resources
B4	Economic ownership / depletion natural resources
B5	Treatment of Emission trading schemes
B6	Treatment of renewable energy resources as assets
B9	Description and uses PSUTs
B10	Waste accounts
B13	Linkage/integration of environmental activity accounts (Ch.4) and the asset and flows accounts (Ch.3 &5)
B14	Environmental tax abatement
C1	Overview links and overlaps SEEA CF - SEEA EA
C4	Air emission accounts / LULUCF
C6	Carbon account
D1	Quarterly air emission and other SEEA flow accounts
D8	Carbon capture and storage

### High impact, high effort

A3	Environmental assets
C5	Water quality accounts
D2	Physical produced assets
D3	Recording residual flows to ecosystem type (pressure account)
D4	Extension of the scope of environmental activities
D5	Climate adaptation expenditure / transfers
D6	Potentially environmentally damaging subsidies/ related transfers
D7	Sustainable finance

### low impact, low effort

A5	International classifications used in SEEA
B7	Distinction between taxes and services
B8	EW MFA
B11	Treatment of losses

B12	Water as a produced asset (artificial reservoirs)
B15	Treatment of processing abroad
B16	Terminology
B17	Production boundary
B18	Treatment when there is deviation between SNA and SEEA
C3	Natural inputs - provisioning services/ abiotic flows

**low impact, high effort**

A2	Residuals
D19	Own account production
C7	Accounting for soil resources