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STATISTICS DIVISION
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Draft Guidance Note

Issue A9.3: Consistency with the 2025 SNA update issues – Terminology

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GUIDANCE NOTE Issue A9.3: Consistency with the 2025 SNA update issues – Terminology

1 Introduction

1.1 Purpose of the Guidance note

1. The purpose of this Guidance Note is to provide guidance on the treatment of issue A9 “Consistency with the 2025 SNA update issues” in the update of the SEEA 2012 Central Framework (SEEA CF) with a focus on issues concerning terminology and classification.
2. The following short description of issue A9 from October 2024 recognises a range of issues. The final sentences note the links to classification and terminology. In addition, there are issues of terminology that relate to the substantive treatments around accounting treatment of natural resources.

“In the 2025 SNA revision, several issues have been addressed in the area of natural capital and the environment, and the updated SEEA CF must consider the implications. The issues include a) Biological resources, b) Economic ownership / depletion natural resources, c) Treatment of emission trading schemes, d) Treatment of renewable energy resources as assets, e) Valuation of natural resources, and f) Distinction between taxes and services. In addition, there is a need to understand the implications of changes to the asset classification of the 2025 SNA, as there is a need for a harmonized asset classification for the SNA/SEEA from a SEEA perspective, i.e. the inclusion of natural resources / ecosystems / renewable energy resources etc. In addition, there may be overlaps in terminology between the SEEA CF and 2025 SNA which need to be clarified.”

3. The updated 2025 SNA was subsequently adopted by the UN Statistical Commission in March 2025 and there is now a baseline version of the SNA that can be used for consideration of the issues raised above and any other issues of consistency that might be identified.
4. In determining the appropriate scope of this Guidance Note, focus was placed on analysis of the glossary of the SEEA CF and the new glossary of the 2025 SNA as well as the classifications of natural resources and environmental assets in both publications. In addition, discussion in the first section of this paper focuses on the use of terms and definitions associated with accounting for natural resources based on assessment of the text of the new 2025 SNA. This GN does not discuss issues associated with accounting treatments.
5. In the development of the SEEA over the past 30 years there has been a consistent intent to align with the accounting treatments and terminologies of the SNA such that data from both systems can be readily combined to provide more comprehensive and integrated data to support analysis of the links between the environment and the economy.
6. The SEEA CF was drafted using as its basis the treatments described in the 2008 SNA. As part of the update of the SEEA CF, the changes in the 2025 SNA must be considered to ensure ongoing alignment. This is particularly relevant at this time given the range of changes to the accounting for natural resources that were included in the 2025 SNA (noting that a number of these SNA changes were motivated by developments in the SEEA over the past 15 years).

7. The broad proposal for consideration under issue A9 is determining which changes reflected in the 2025 SNA should be incorporated into the updated SEEA CF. Whether all of the relevant changes in the 2025 SNA should be incorporated is to be determined but there is a strong expectation that the implications of changes to the SNA should be examined closely through the SEEA CF update process. With this objective in mind, this Guidance Note discusses:
 - a. whether the changes to the SNA concerning terminology and classification, particularly regarding natural resources, are of relevance to the SEEA CF update; and if so,
 - b. what changes to the SEEA CF might be needed.
8. The Guidance Note does not intend to open up for discussion the changes that have been adopted in the 2025 SNA. Thus, it is taken as given that the 2025 SNA is the definitive SNA treatment. The focus is therefore on the extent to which the treatment in the updated SEEA CF should be aligned with the 2025 SNA.
9. In this context, the general intent in the paper is to provide substantive reasons for any deviations from the 2025 SNA that the updated SEEA CF might apply including clarifying any implications that may arise from not aligning with the 2025 SNA. In this respect relevant considerations include ensuring internal consistency and coherence across the SEEA CF and responding to users and policy needs.

<<NB: Please note that in this first draft of the paper there is only a limited amount of reasoning provided for any deviation or implications of non-alignment. Pending further discussion and advice future versions will incorporate additional text.>>

10. A related matter concerns the role of the SEEA CF relative to the SNA, particularly in relation to accounting for natural resources. The SEEA CF 2012 provided significant additional discussion on a range of accounting issues compared to the 2008 SNA. While the 2025 SNA has expanded its discussion of certain aspects of environmental-economic accounting, there remains scope for the SEEA CF to provide additional detail and explanation of the 2025 SNA treatments, including in cases where the conceptual alignment between the SEEA CF and 2025 SNA is endorsed.
11. Other issues concerning the consistency of the updated SEEA CF with the 2025 SNA will be discussed in other Guidance Notes. GN A9.1 will focus on accounting treatments related to natural resource, GN A9.2 will focus on accounting for environmental transactions and cover topics concerning emission trading and emission permits, sustainable finance, and climate offsets. GN A9.4 will focus on all other issues and will include discussion of the recording of catastrophes, leasing of land, stranded assets, accounting for land, the treatment of the atmosphere as an asset, SUT/IOT globalisation, household electricity and sustainability data.

1.2 Process for developing the Guidance Note

12. The following process was used to prepare and finalise the GN. (This will be drafted by UNSD for inclusion ahead of Global Consultation).

1.3 Structure

13. The remainder of this Guidance Note is structured as follows:
- a. Section 2 discusses terminology and classification issues related to natural resources
 - b. Section 3 discusses other changes to commonly used terms and definitions
 - c. Section 4 discusses other changes and developments in terminology in the 2025 SNA that may be of relevance in the updated SEEA CF.

2 The definition and classification of natural resources

2.1 Environmental assets and natural capital

14. In the 2025 SNA there have been a number of changes concerning the accounting for natural resources compared to the 2008 SNA. The relevant changes in accounting treatments and accounting entries, for example concerning the recording of depletion and accounting for timber resources, are considered in GN A9.1. In this section, the focus is on the changes in terms, definitions and classification related to natural resources.
15. At the broadest level, the 2025 SNA has introduced the concept of natural capital. It is defined in the following way *“Natural capital - The combination of natural resources and ecosystem assets, of which the latter are not explicitly recognized as economic assets in the integrated framework of national accounts.”* The 2025 SNA also amends the use of the term natural resources which is now applied more broadly in the 2025 SNA compared to the 2008 SNA since it now includes, in a range of contexts, those assets that were previously termed cultivated biological resources. The main assets that this affects is accounting for timber resources.
16. The SEEA’s most comprehensive concept regarding those features of the environment that can provide benefits is environmental assets. Following SEEA CF paragraph 2.17, *“Environmental assets are the naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity.”* In the SEEA CF the coverage of environmental assets includes all cultivated and non-cultivated (natural) biological resources, other natural resources (e.g. mineral and energy resources, water and soil), land and ecosystem assets.
17. This definition of environmental assets is also recognised in the 2025 SNA but with the additional sentence *“In macroeconomic statistics, environmental assets are only recognised in as far they meet the asset boundary applied in the integrated framework of the SNA, by providing economic benefits to their owners, either individually or collectively.”*
18. Based on this short description of the changed use of terms, and setting aside the issue of the measurement scope of natural resources (discussed in the next section), the following options should be considered for the choice of terms in the updated SEEA CF.
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- a. Retain the use of the term “Environmental assets” and the associated definition as per SEEA CF 2.17.
- b. Retain the use of the term “Environmental assets” but amend the definition to remove the reference to “naturally occurring” given the significant blurring of the boundary between cultivated and non-cultivated biological resources in the 2025 SNA and the challenge of envisaging cultivated biological resources as naturally occurring.
- c. Replace the term “Environmental assets” with “Natural capital” and use either
 - i. The existing definition in SEEA CF para 2.17
 - ii. An updated definition based on the SEEA CF para. 2.17 text
 - iii. The new definition from the 2025 SNA
- d. Retain the term “Environmental assets” and introduce the term “Natural capital” as a synonym (i.e. applying the same definition) recognising that they are complementary umbrella terms.

19. In choosing among these options the following considerations are relevant:

- While the coverage of asset types for environmental assets and natural capital is the same, the measurement boundaries will be different in physical and monetary terms to the extent that the implicit scope of natural capital in the 2025 SNA concerns measurement in monetary terms while the measurement scope of environmental assets in the SEEA CF is bounded in physical terms.
- The phrase “naturally occurring” was included in the SEEA CF 2.17 in an effort to exclude non-living components of the biophysical environment such as buildings. It was accepted at the time that the scope of environmental assets was not limited to non-cultivated or non-produced assets but also included cultivated biological resources.
- At the same time, it may be possible to amend the definition of environmental assets to better reflect the inclusion of both cultivated and non-cultivated biological resources as well as all type of ecosystems (e.g. agricultural and urban ecosystem types).
- The definition of natural capital in the 2025 SNA may be interpreted as reflecting a sum of two parts – natural resources and ecosystem assets – when in fact there is considerable overlap in the value of these two components. The definition in the 2025 SNA is therefore not a good reflection of the inherent overarching concept.
- Introduction of the term and definition of natural capital into the SEEA CF would be very useful in communication with many users particularly outside the statistical community where the term natural capital is widely used as an umbrella term. It would also support alignment with the discussion in the national accounting community and the connection to the multiple capital / wealth accounting measurement community.
- At the same time, it is known that there are some experts who interpret the term “capital” as being a specific economic and monetary concept and hence the use of the term “natural capital” in the SEEA CF would materially change the appropriate interpretation and purpose

of accounting compared to the use of the term environmental assets – i.e. even if the definitions were unchanged.

- While the 2025 SNA introduces the term natural capital and a definition, the accounting for natural capital is not fully explored and the concept is not applied in the integrated framework of national accounts. Natural capital is included in the extended classification of assets alongside human capital and social capital but this may be considered more of a placeholder in the SNA framework at this stage from a measurement perspective.
- Although perhaps a placeholder from a measurement perspective in the SNA context, it may be appropriate for the SEEA CF to provide a brief introduction to the multiple capitals/wealth accounting framework (referencing content from the 2025 SNA) and describing the ways in which the accounting described across the SEEA (both CF and EA) can support measurement of this framework.

20. Questions for discussion:

- a. Are there other options that might be considered for the terms environmental assets and natural capital?**
- b. Are there other considerations that should be noted in determining the option to take forward?**
- c. Which options appear most appropriate at this stage?**
- d. Should the SEEA CF include text to introduce the multiple capitals/wealth accounting framework?**

2.2 The coverage of natural resources

21. In the SEEA CF, the term natural resources refers to non-produced assets (following the 2008 SNA) that are also environmental assets but excluding land. It thus covers non-produced mineral and energy resources, timber resources, aquatic (fish) resources, water resources, soil resources and other biological resources. Put differently, natural resources in the SEEA CF includes everything in the classification of environmental assets (see Table 1 below) except land and cultivated timber and aquatic resources.

Table 1: Classification of Environmental Assets in the SEEA CF

1	Mineral and energy resources
1.1	Oil resources
1.2	Natural gas resources
1.3	Coal and peat resources
1.4	Non-metallic mineral resources (excluding coal and peat resources)
1.5	Metallic mineral resources
2	Land
3	Soil resources
4	Timber resources
4.1	Cultivated timber resources
4.2	Natural timber resources
5	Aquatic resources
5.1	Cultivated aquatic resources
5.2	Natural aquatic resources
6	Other biological resources (excluding timber resources and aquatic resources)
7	Water resources
7.1	Surface water
7.2	Groundwater
7.3	Soil water

22. As noted above, the 2025 SNA applies the term natural resources differently from the 2008 SNA and the SEEA CF. In the 2025 SNA, the distinction between cultivated and non-produced/non-cultivated biological resources has been modified such that in many cases the distinction is no longer applied and the term natural resources now covers all types of cultivated and non-cultivated resources as well as some assets currently outside the scope of the SEEA CF, namely renewable energy resources and radio spectra.
23. Based on this short description of the changed use of terms, and setting aside the issues of (a) whether the SEEA CF should also apply the changed boundary between cultivated and non-cultivated biological resources and (b) whether renewable energy resources and radio spectra should be included in the SEEA CF (both discussed in GN A9.1), the following options should be considered for the use of the term natural resources in the updated SEEA CF
- Retain the use of the term following the current SEEA CF (excluding land and cultivated biological resources).
 - Adopt the use of the term following the 2025 SNA.
 - Amend the use of the term in the current SEEA CF to include land but exclude cultivated biological resources.
24. From the perspective of alignment with the 2025 SNA and consistency in communication and messaging, and consistency in interpretation of accounting outputs (across SEEA and SNA) option b would be the relevant choice. Option c would be of benefit in the communication of the overall content of the SEEA CF since it would avoid the need to add “and land” when summarising the general scope.

25. In all cases it should be noted that data would be compiled for individual types of assets, i.e. there is no possibility to measure the aggregate “natural resources” directly. It is also noted that the measurement scope of natural resources in the SEEA CF will be broader than the scope in the 2025 SNA to the extent that the boundary for a given resource in physical terms was broader than in monetary terms.

26. Question for discussion:

a. To what measurement scope should the term natural resources be applied?

2.3 Classification of biological resources

27. In the SEEA CF, the classification of biological resources is described by type of resource – i.e. timber resources, aquatic resources, other biological resources (see Table 1 above). The 2025 SNA uses a different approach and makes distinctions between resources that provide repeat products (e.g. orchards, dairy cattle) and once-only outputs (e.g. timber, crops). It also distinguishes between animal and other biological resources, and between cultivated and non-cultivated resources and separates out work-in-progress (see classes below).

2025 SNA Classification of Biological Resources

AN33 Biological resources

AN331 Biological resources yielding repeat products

AN3311 Animal resources yielding repeat products

AN3312 Tree, crop and plant resources yielding repeat products

AN332 Biological resources yielding once-only products

AN3321 Cultivated biological resources yielding once-only products

AN3322 Non-cultivated biological resources yielding once-only products

AN333 Work-in-progress on cultivated biological resources

AN3331 Work-in-progress on cultivated biological resources yielding repeat products

AN3332 Work-in-progress on cultivated biological resources yielding once-only products

28. For the purposes of the SEEA CF, this approach to classification does not appear warranted and it is proposed to retain the type of biological resource classification that is current applied. While the organization of the data about biological resources would differ, the underlying measurement scope and accounting treatments, is not affected by the use of a different classification approach.

29. The key driver of the 2025 SNA approach to classification is that in different production contexts the same type of biological resource requires different accounting treatments and entries. For example, cattle might yield repeat products (e.g. for milk, as breeding stock) or

yield once-only products (e.g. for meat) and, in some circumstances might be non-cultivated and hunted.

30. From a SEEA CF perspective, since the focus is more on recording the stocks and changes in stocks of biological resources rather than recording measures of production and income associated with those resources, a classification by type of resource appears most appropriate.
31. Also, the focus of accounting for environmental assets in the SEEA CF is not on those types of biological resources that are pre-dominantly cultivated such as cattle and other livestock, crops, orchards, etc. Accounting for these types of environmental assets is covered more directly in the SEEA Agriculture, Forestry and Fisheries. As a result, there is less rationale to apply the type of classification applied in the 2025 SNA which needs to cover accounting for the different production contexts for cultivated biological resources.

32. Question for discussion:

- a. **Should the SEEA CF retain its approach to the classification of biological resources?**

2.4 Treatment of individual resources

2.4.1 Land and soil resources

33. The SEEA CF makes a clear distinction between land and soil resources. In the 2025 SNA, as for previous editions, land and soil resources are treated as a single asset class and indeed the coverage extends to relevant water resources. The 2025 SNA definition of land is *“Ground, including the soil covering and any associated surface waters, over which ownership rights are enforced and from which economic benefits can be derived by their owners by holding or using them.”*
34. While this definition may be appropriate from a purely monetary balance sheet perspective, it is limiting from the perspective of the integrated physical and monetary measurement of the SEEA. Indeed, making this conceptual distinction supports a range of analysis including the presentation of data on the depletion of soil resources and facilitating a distinction between the area of land and the quality or condition of that area. The relevance of distinguishing land as a distinct asset is now also reflected in parts of the accounting discussion in the 2025 SNA, particularly concerning the distinction between forest land and timber resources. This distinction is already clear in the framing provided in the SEEA CF.
35. It is proposed to retain the definition of land as space in the SEEA CF and hence the distinction between land and soil resources should be retained.
36. A related topic concerns accounting for “land improvements”, i.e. expenditures undertaken by a land owner (usually a farmer) to increase the productive capacity of the land from the perspective of agricultural or similar production. These expenditures are recorded as gross fixed capital formation in the 2025 SNA (and earlier versions). Since land improvements are considered produced assets but land is considered non-produced, reconciling the accounting entries has remained a challenging national accounting task resolved through the use of

conventions. In the context of the SEEA CF, land improvements are discussed as part of the wider discussion on the monetary value of land reflecting the value of composite assets. This topic is not discussed further here pending further discussion on whether some additional investigation should be undertaken.

37. Questions for discussion:

- a. **Should the SEEA CF retain its approach to the definition of land and soil resources?**
- b. **Should additional investigation of the treatment of land improvements be undertaken? If so which issues should be considered?**

2.4.2 Mineral and energy resources

- 38. The SEEA CF classification of mineral and energy resources has five classes: oil, natural gas, coal and peat, non-metallic minerals (excl. coal and peat) and metallic minerals (see Table 1 above).
- 39. The 2025 SNA provides an extended set of classes, in particular highlighting the distinction between non-renewable resources and renewable energy resources (see below). Setting aside the question of the inclusion of renewable energy resources which are not currently explicitly included in the SEEA CF, the classes of the SNA are similar to but different from those in the SEEA CF.

2025 SNA Classification of mineral and energy resources

AN32 Mineral and energy resources

AN321 Non-renewable mineral and energy resources

AN321S1 Coal and lignite resources

AN321S2 Oil and natural gas resources

AN321S21 Oil resources

AN321S22 Natural gas resources

AN321S3 Mineral resources

AN321S9 Other non-renewable mineral and energy resources

AN322 Renewable energy resources

AN3221 Wind energy resources

AN3222 Solar energy resources

AN3223 Water energy resources

AN3224 Geothermal energy resources

AN3229 Other renewable energy resources

40. The more detailed set of classes in the 2025 SNA provides a richer set of information compared to the SEEA CF and it is proposed that these classes also be applied in the SEEA CF. This would support alignment in measurement practice and presentation of results which should be of significant benefit to both compilers and users.
 41. In addition, consideration may be given to designing some supplementary classes to support specific analytical and policy uses. For example, the class of Mineral resources might be broken down to show data on critical minerals.
 42. An additional consideration, in light of the work on measuring produced assets in physical terms in the SEEA CF (GN D2), is whether the stocks of minerals embodied in those assets might be separately recorded and if so, whether the classification of mineral and energy resources listed above would be relevant in the organisation of data.
- 43. Questions for discussion:**
- a. **Should the SEEA CF adopt the new classification of mineral and energy resources in the 2025 SNA?**
 - b. **Are there other classes of mineral and energy resources that should be identified?**

2.4.3 Specific definitions of natural resources

44. The 2025 provides definitions for selected natural resources including water resources, mineral and energy resources, timber resources, and water resources. These definitions vary to different degrees from the definitions of the same resources as defined in the SEEA CF.
 45. For example, water resources in the SEEA CF are defined *“Water resources consist of fresh and brackish water in inland water bodies, including groundwater and soil water.”* (SEEA CF paragraph 5.476). In the 2025 SNA, water resources are defined as *“Surface and groundwater resources used for extraction to the extent that their scarcity leads to the enforcement of ownership and/or use rights, market valuation and some measure of economic control.”*
 46. In large part the differences relate to the SEEA CF establishing a definition on the basis of physical characteristics while the 2025 SNA definition is based on applying the concept of economic assets.
 47. Given that the focus of accounting in the SEEA CF commences from a biophysical perspective, it is proposed to retain the current SEEA CF definitions of individual natural resources.
- <<NB: Further work is required to compare and contrast the relevant definitions. This will be completed for the next version of the paper. Other issues might also be picked up here – for example whether changes to the definition of water resources are required pending developments in the issue on the treatment of water resources as produced assets (GN D4). >>

3 Changes to commonly used national accounting terms and definitions

48. Across the SEEA CF there are many, many terms and definitions that are applied directly from the SNA. These include those relating to accounting entries (stocks, transactions, etc), balancing items and economic units. In the annex to this GN, highlighted definitions from the SEEA CF Glossary demonstrate the range of SNA terms that are incorporated in the SEEA CF. For the most part the 2025 SNA retains the same terms as the 2008 SNA and hence no changes in the SEEA CF would be anticipated. The main exceptions that are of most relevance to the SEEA CF are listed below.

2008 SNA	2025 SNA
Compensation of employees	Remuneration of employees
Consumption of fixed capital	Depreciation
FISIM	Implicit financial services on loans and deposits

49. At the same time, there are some specific terms including economic benefits, exchange values, resource rent, rent, resource lease, present value, depletion and degradation, that are of particular relevance in the SEEA CF. A future version of this paper will examine the extent to which the definition of these terms has changed and the implications of any changes on the SEEA CF.

50. In addition to terms and definitions, the various accounts of the SNA integrated sequence of national accounts have specific titles that are applied in the SEEA CF. There have been a range of changes to these titles in the 2025 SNA. It is proposed that the updated SEEA CF adopted all of those changes.

51. Question for discussion:

- a. Are there any general national accounting terms, definitions or account titles in the 2025 SNA that the SEEA CF should not adopt?

4 Other changes and developments in terminology

52. <<further work is needed on this section. After a review of the SNA Glossary I found the following terms and definitions that look like they should be checked out and compared to the SEEA CF

- Emissions
- Emission permits
- Environmental protection
- Resource management
- Environmental subsidies
- Environmental taxes

Annex 1: SEEA Central Framework 2012 Glossary

A

Abstraction is the amount of water that is removed from any source, either permanently or temporarily, in a given period of time. (3.195)

Accumulation is an economic activity in which goods, services and financial resources are retained for use or consumption in future accounting periods. (2.8)

Adapted goods are goods that have been specifically modified to be more “environmentally friendly” or “cleaner” and whose use is therefore beneficial for environmental protection (4.67) or resource management. (4.99)

Afforestation is the increase in the stock of forest and other wooded land either due to the establishment of new forest on land that was previously not classified as forest land, or as a result of silvicultural measures such as planting and seeding. (5.291)

Aquaculture is the farming of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated. (5.409)

Aquatic resources comprise fish, crustaceans, molluscs, shellfish, aquatic mammals and other aquatic organisms that are considered to live within the boundaries of the exclusive economic zone (EEZ) of a country throughout their life cycles, including both coastal and inland fisheries. Migrating and straddling fish stocks are considered to belong to a given country during the period when those stocks inhabit its EEZ. (5.393, 5.398)

Asset: a store of value representing a benefit or series of benefits accruing to an economic owner by holding or using the entity over a period of time. It is a means of carrying forward value from one accounting period to another. (5.32)

Asset life (also known as the resource life) is the expected time over which an asset can be used in production or the expected time over which extraction from a natural resource can take place. (5.137)

B

Balancing item: an accounting construct obtained by subtracting the total value of the entries on one side of an account (resources or changes in liabilities) from the total value of the entries on the other side (uses or changes in assets). (2.62, 6.28)

Basic price: the amount receivable by the producer from the purchaser for a unit of a good or service produced as output, minus any tax payable, and plus any subsidy receivable by the producer as a consequence of its production or sale. It excludes any transport charges invoiced separately by the producer and any wholesale and retail margins that may be applicable. (2.151)

Biological resources include timber and aquatic resources and a range of other animal and plant resources (such as livestock, orchards, crops and wild animals), fungi and bacteria. (5.24) (See also Cultivated biological resources, Natural biological resources, Other biological resources)

C

Capital transfers are unrequited transfers where either the party making the transfer realizes the funds involved by disposing of an asset (other than cash or inventories), relinquishing a financial claim (other than accounts receivable), or the party receiving the transfer is obliged to acquire an asset (other than cash) or both conditions are met. (4.138)

Catastrophic losses are reductions in assets due to catastrophic and exceptional events. (5.49)

Changes in inventories are measured by the value of the entries into inventories less the value of withdrawals and less the value of any recurrent losses of goods held in inventories during the accounting period. (5.67)

Compensation of employees is the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period. (5.118)

Consumption is the use of goods and services for the satisfaction of individual or collective human needs or wants. (2.8)

Consumption of fixed capital is the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage. (2.63, 4.197, 5.120)

Corporations cover legally constituted corporations and also cooperatives, limited liability partnerships, notional resident units and quasi-corporations. (2.111)

Cultivated biological resources cover animal resources yielding repeat products and tree, crop and plant resources yielding repeat products whose natural growth and regeneration are under the direct control, responsibility and management of an institutional unit. (5.24)

Current transfers are transactions in which one institutional unit provides a good, service or asset to another unit without receiving from the latter any good, service or asset directly in return as counterpart and does not oblige one or both parties to acquire, or dispose of, an asset. (4.138)

D

Decommissioning costs relate to expenditures incurred at the end of the operating life of an asset to restore the surrounding environment. They comprise Terminal costs and Remedial costs. (4.194)

Deforestation is the decrease in the stock of forest and other wooded land due to the complete loss of tree cover and transfer of forest land to other uses (e.g., use as agricultural land, land under buildings, roads, etc.) or to no identifiable use. (5.293)

Degradation considers changes in the capacity of environmental assets to deliver a broad range of ecosystem services and the extent to which this capacity may be reduced through the action of economic units, including households. (5.90)

Depletion, in physical terms, is the decrease in the quantity of the stock of a natural resource over an accounting period that is due to the extraction of the natural resource by economic units occurring at a level greater than that of regeneration. (5.76)

Discount rate: a rate of interest used to adjust the value of a stream of future flows of revenue, costs or income to account for time preferences and attitudes to risk. (5.145)

Discoveries are additions representing the arrival of new resources to a stock and commonly arise through exploration and evaluation. (5.48)

Dissipative losses are material residues that are an indirect result of production and consumption activity. (3.97)

Dissipative uses of products covers products that are deliberately released to the environment as part of production processes. (3.96)

E

Economic activity comprises the activities of production, consumption and accumulation. (2.8) (See also Accumulation, Consumption, Production)

Economic assets (See Asset)

Economic benefits reflect a gain or positive utility arising from economic production, consumption or accumulation. (5.33)

Economic owner: the institutional unit entitled to claim the benefits associated with the use of an asset in the course of an economic activity by virtue of accepting the associated risks. (5.32)

Economic rent is the surplus value accruing to the extractor or user of an asset calculated after all costs and normal returns have been taken into account. (5.113)

Economic territory: the area under effective control of a single government. It includes the land area of a country, including islands, airspace, territorial waters and territorial enclaves in the rest of the world. Economic territory excludes territorial enclaves of other countries and international organizations located in the reference country. (2.121)

Economic units (see Institutional units)

Ecosystems are areas containing a dynamic complex of biotic communities (for example, plants, animals and microorganisms) and their non-living environment interacting as a functional unit to provide environmental structures, processes and functions. (2.21)

Ecosystem services are the benefits supplied by the functions of ecosystems and received by humanity. (2.22)

Emissions are substances released to the environment by establishments and households as a result of production, consumption and accumulation processes. (3.88)

Emissions to air are gaseous and particulate substances released to the atmosphere by establishments and households as a result of production, consumption and accumulation processes. (3.91)

Emissions to soil are substances released to the soil by establishments and households as a result of production, consumption and accumulation processes. (3.95)

Emissions to water are substances released to water resources by establishments and households as a result of production, consumption and accumulation processes. (3.92)

End-of-pipe (pollution treatment) technologies are mainly technical installations and equipment produced for measurement, control, treatment and restoration/correction of pollution, environmental degradation, and/or resource depletion. (4.102)

Energy from natural inputs encompasses flows of energy from the removal and capture of energy from the environment by resident economic units. (3.144)

Energy losses include energy losses during extraction, distribution, storage and transformation. (3.150, 3.101)

Energy products are products that are used (or might be used) as a source of energy. They comprise (a) fuels that are produced/generated by an economic unit (including households) and are used (or might be used) as sources of energy; (b)

electricity that is generated by an economic unit (including households); and (c) heat that is generated and sold to third parties by an economic unit. (3.146)

Energy residuals comprise energy losses and other energy residuals (primarily heat generated when end-users use energy products for energy purposes). (3.150)

Enterprise: the view of an institutional unit as a producer of goods and services. (2.114)

Environmental assets are the naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity. (2.17)

Environmental goods and services sector (EGSS) consists of producers of all environmental goods and services, including environmental-specific services, environmental sole-purpose products, adapted goods and environmental technologies. (4.95-4.102)

Environmental protection activities are those activities whose primary purpose is the prevention, reduction and elimination of pollution and other forms of degradation of the environment. (4.12)

Environmental protection-connected products are products whose use directly serves environmental protection purposes but which are not environmental protection-specific services or inputs into characteristic activities. (4.65)

Environmental protection-specific services are environmental protection services produced by economic units for sale or own use. (4.53)

Environmental sole-purpose products are goods (durable or non-durable) or services whose use directly serves an environmental protection or resource management purpose and that have no use except for environmental protection or resource management. (4.98)

Environmental-specific services are environmental protection and resource management-specific services produced by economic units for sale or own use. (4.96)

Environmental subsidies and similar transfers are transfers intended to support activities that protect the environment or reduce the use and extraction of natural resources. (4.138)

Environmental taxes are taxes whose tax base is a physical unit (or a proxy of it) of something that has a proved, specific negative impact on the environment. (4.150)

Environmental technologies are technical processes, installations and equipment (goods), and methods or knowledge (services) whose technical nature or purpose is environmental protection or resource management. (4.102)

Establishment: an enterprise, or part of an enterprise, that is situated in a single location and in which only a single productive activity is carried out, or in which the principal productive activity accounts for most of the value added. (2.114)

Evaporation and actual evapotranspiration constitute the volume of water that enters the atmosphere by vaporization of water into gas through evaporation from land and water surfaces, and transpiration from plants in the territory of reference during the accounting period excluding amounts already recorded as abstracted from soil water. (5.489)

Exclusive economic zone (EEZ) of a country: the area extending up to 200 nautical miles from a country's normal baselines as defined in the United Nation Convention on the Law of the Sea of 10 December 1982. (5.248 and related footnote)

Exports of goods and services consist of sales, barter, or gifts and grants, of goods and services from residents to non-residents. (2.32)

Extractions are reductions in stock due to the physical removal or harvest of an environmental asset through a process of production. (5.49)

F

Final water use is equal to evaporation, transpiration and water incorporated into products. (3.222) (Also referred to in water statistics as “water consumption”)

Financial assets consist of all financial claims, shares or other equity in corporations plus gold bullion held by monetary authorities as a reserve asset. (5.37)

Financial corporations consist of all resident corporations that are principally engaged in providing financial services, including insurance and pension funding services, to other institutional units. (2.111)

Fixed assets are produced assets that are used repeatedly or continuously in production processes for more than one year. (4.190)

G

General government is the institutional sector consisting of mainly central, state and local government units together with social security funds imposed and controlled by those units. (2.111)

General government final consumption expenditure consists of expenditure, including expenditure whose value must be estimated indirectly, incurred by general government on both individual consumption goods and services and collective consumption services. (2.32)

Gross capital formation shows the acquisition less disposal of produced assets for purposes of fixed capital formation, inventories or valuables. (2.35)

Gross domestic product (GDP) is an aggregate measure of gross value added for all resident institutional units. It can be measured in three conceptually equivalent ways:

(a) Income measure of GDP. The income measure of gross domestic product (GDP) is derived as compensation of employees plus gross operating surplus plus gross mixed incomes plus taxes less subsidies on both production and imports;

(b) Expenditure measure of GDP. The expenditure measure of gross domestic product (GDP) is derived as the sum of expenditure on final consumption plus gross capital formation plus exports less imports;

(c) Production measure of GDP. The production measure of gross domestic product (GDP) is derived as the value of output less intermediate consumption plus any taxes less subsidies on products not already included in the value of output. (2.62, 6.30)

Gross energy input reflects the total energy captured from the environment, energy products that are imported and energy from residuals within the economy. (3.181)

Gross fixed capital formation is measured by the total value of a producer’s acquisitions, less disposals, of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets. (2.35)

Gross mixed income is the surplus or deficit accruing from production by unincorporated enterprises owned by households before the deduction of consumption of fixed capital. It implicitly contains an element of remuneration for work done by the owner or other members of the household. (table 5.4.1, 6.31)

Gross national income (GNI) is defined as GDP plus compensation of employees receivable from abroad plus property income receivable from abroad plus taxes less subsidies on production receivable from abroad less compensation of employees payable abroad less property income payable abroad and less taxes plus subsidies on production payable abroad. (2.62)

Gross operating surplus is the surplus or deficit accruing from production before taking account of any interest, rent or similar flows payable or receivable and before the deduction of consumption of fixed capital. (2.65, table 5.4.1, 6.31)

Gross releases comprise emissions to the environment and substances captured within economic units or transferred to other economic units. (3.90)

Gross value added is the value of output less the value of intermediate consumption. (2.36)

Gross water input reflects the total water that is abstracted from the environment or imported. (3.220)

Groundwater is water that collects in porous layers of underground formations known as aquifers. (5.48)

H

Household: a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. (2.111)

Household final consumption expenditure consists of the expenditure, including expenditure whose value must be estimated indirectly, incurred by resident households on individual consumption goods and services, including those sold at prices that are not economically significant and including consumption goods and services acquired abroad. (2.32)

I

Imports of goods and services consist of purchases, barter, or receipts of gifts or grants, of goods and services by residents from non-residents. (2.31)

Individual environmental assets are those environmental assets that may provide resources for use in economic activity. They comprise mineral and energy resources, land, soil resources, timber resources, aquatic resources, other biological resources and water resources. (5.11)

Industry consists of a group of establishments engaged in the same, or similar, kinds of activity. (2.116)

Inland water system: comprises surface water (rivers, lakes, artificial reservoirs, snow, ice and glaciers), groundwater and soil water within the territory of reference. (3.187)

Inputs from air comprise substances taken in by the economy from the air for purposes of production and consumption. (3.63)

Inputs from soil comprise nutrients and other elements present in the soil that are absorbed by the economy during production processes. (3.62)

Inputs of energy from renewable sources are the non-fuel sources of energy provided by the environment. (3.59)

Institutional sector: a grouping of similar institutional units. An institutional unit can be allocated to only one type of institutional sector. (2.110)

Institutional unit: an economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities. (2.110)

Integrated technologies are technical processes, methods or knowledge used in production processes that are less polluting and less resource-intensive than the equivalent “normal” technology used by other national producers. Their use is less environmentally harmful than relevant alternatives. (4.102)

Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital. (2.32)

Inventories are produced assets that consist of goods and services, which came into existence in the current period or in an earlier period, and that are held for sale, use in production or other use at a later date. (2.33, 5.34)

L

Land is a unique environmental asset that delineates the space in which economic activities and environmental processes take place and within which environmental assets and economic assets are located. (5.239)

Land cover refers to the observed physical and biological cover of the Earth’s surface and includes natural vegetation and abiotic (non-living) surfaces. (5.257)

Land use reflects both (a) the activities undertaken and (b) the institutional arrangements put in place for a given area for the purposes of economic production, or the maintenance and restoration of environmental functions. (5.246)

Losses during distribution are losses that occur between a point of abstraction, extraction or supply and a point of use. (3.101)

Losses during extraction are losses that occur during extraction of a natural resource before there is any further processing, treatment or transportation of the extracted resource. (3.101)

Losses during storage are losses of materials, water and energy products held in inventories. (3.101)

Losses during transformation refer to the energy lost, for example, in the form of heat, during the transformation of one energy product into another energy product. (3.101)

M

Market prices are defined as amounts of money that willing buyers pay to acquire something from willing sellers. (2.144)

Mineral and energy resources comprise known deposits of oil resources, natural gas resources, coal and peat resources, non-metallic minerals and metallic minerals. (5.173)

N

National expenditure on environmental protection is defined as final consumption, intermediate consumption, and gross fixed capital formation on all environmental protection goods and services (except intermediate consumption and gross fixed capital formation for characteristic activities) *plus* Gross fixed capital formation (and acquisition less disposal of non-produced, non-

financial assets) for environmental protection-characteristic activities *plus* Environmental protection transfers by resident units not captured in the items above *plus* Environmental protection transfers paid to the rest of the world *less* Environmental protection transfers received from the rest of the world. (4.85)

Natural biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products for which natural growth and/or regeneration is not under the direct control, responsibility and management of institutional units. (5.24)

Natural expansion of forest and other wooded land is an increase in area of forest and other wooded land resulting from natural seeding, sprouting, suckering or layering. (5.292)

Natural inputs are all physical inputs that are moved from their location in the environment as a part of economic production processes or are directly used in production. (2.89, 3.45)

Natural regression of forest and other wooded land is a decrease in an area of forest and other wooded land that occurs for natural reasons. (5.294)

Natural resource inputs comprise physical inputs to the economy from natural resources. (3.47)

Natural resource residuals are natural resource inputs that do not subsequently become incorporated into production processes and, instead, immediately return to the environment. (3.98)

Natural resources include all natural biological resources (including timber and aquatic resources), mineral and energy resources, soil resources and water resources. (2.101, 5.18)

Naturally regenerated forest is forest that is predominantly composed of trees established through natural regeneration. In this context, “predominantly” means that the trees established through natural regeneration are expected to constitute more than 50 per cent of the growing stock at maturity. (5.285)

Net domestic energy use is the end use of energy products less exports of energy products plus all losses of energy. (3.182)

Net domestic water use is the sum of all return flows of water to the environment plus evaporation, transpiration and water incorporated into products. (3.221)

Net lending is defined as the difference between changes in net worth due to saving and capital transfers and net acquisitions of non-financial assets (acquisitions less disposals of non-financial assets, less consumption of fixed capital). If the amount is negative it represents net borrowing. (2.68, 6.41)

Net present value is the value of an asset determined by estimating the stream of income expected to be earned in the future and then discounting the future income back to the present accounting period. (5.110)

Net worth is defined as the value of all the assets owned by an institutional unit or sector less the value of all its outstanding liabilities. (2.69)

Non-financial corporations are corporations whose principal activity is the production of market goods or non-financial services. (2.111)

Non-market output consists of goods and individual or collective services produced by non-profit institutions serving households (NPISHs) or government that are supplied free, or at prices that are not economically significant, to other institutional units or the community as a whole. (2.146)

Non-produced assets are assets that have come into existence in ways other than through processes of production. (5.36)

Non-profit institutions serving households (NPISHs) consist of non-market NPIs that are not controlled by government. (2.111)

Non-specialist producers produce environmental goods and services for sale but not as their primary activity. (4.33)

O

Other biological resources comprise all biological resources, both cultivated and natural, other than timber resources and aquatic resources. (5.462, 5.463)

Other changes in the volume of assets are those changes in assets, liabilities and net worth during an accounting period that are due neither to transactions nor to holding gains and losses. (5.65)

Other naturally regenerated forest is naturally regenerated forest with clearly visible indications of human activities. These include (a) selectively logged-over areas, areas regenerating following agricultural land use and areas recovering from human-induced fires, etc.; (b) forests where it is not possible to distinguish whether they are planted or naturally regenerated; (c) forests with a mix of naturally regenerated trees and planted/seeded trees and where the naturally regenerated trees are expected to constitute more than 50 per cent of the growing stock at stand maturity; (d) coppice from trees established through natural regeneration; and (e) naturally regenerated trees of introduced species. (5.286)

Other wooded land is land not classified as forest land, spanning more than 0.5 hectares; with trees higher than 5 metres and a canopy cover of 5-10 per cent, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10 per cent. It does not include land that is predominantly under agricultural or urban land use. (5.288)

Output is defined as the goods and services produced by an establishment, excluding the value of any goods and services used in an activity for which the establishment does not assume the risk of using the products in production, and excluding the value of goods and services consumed by the same establishment except for goods and services used for capital formation (fixed capital or changes in inventories) or own final consumption. (2.31)

Own-account activity consists of the production and use of goods and services within an establishment or household. (2.117)

P

Physical flows are reflected in the movement and use of materials, water and energy. (2.88)

Planted forests are predominantly composed of trees established through planting and/or deliberate seeding. Planted/seeded trees are expected to constitute more than 50 per cent of the growing stock at maturity, including coppice from trees that were originally planted or seeded. (5.287)

Primary forest is naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed. Key characteristics of primary forests are that: (a) they show natural forest dynamics, such as natural tree species composition, occurrence of dead wood, natural age structure and natural regeneration processes; (b) the area is large enough to maintain its natural characteristics; and (c) there has been no known significant human intervention or the last significant human intervention occurred long enough in the past to have allowed the natural species composition and processes to have become re-established. (5.286)

Primary incomes are incomes that accrue to institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production. (6.32)

Principal activity of a producer unit: the activity whose value added exceeds that of any other activity carried out within the same unit. (2.114)

Produced assets are assets that have come into existence as outputs of production processes that fall within the production boundary of the SNA. (5.34)

Producer's price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any VAT, or similar deductible tax, invoiced to the purchaser. It excludes any transport charges invoiced separately by the producer. (2.153)

Products are goods and services (including knowledge-capturing products) that result from a process of production. (2.9, 2.91, 3.64)

Production is an activity, carried out under the responsibility, control and management of an institutional unit, that uses inputs of labour, capital, and goods and services to produce outputs of goods and services. (2.9)

Production boundary of the SNA: includes the following activities: (a) the production of all goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services; (b) the own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation; (c) the own-account production of knowledge-capturing products that are retained by their producers for their own final consumption or gross capital formation but excluding (by convention) such products produced by households for their own use; (d) the own-account production of housing services by owner occupiers; and (e) the production of domestic and personal services by employing paid domestic staff. (2.9)

Purchaser price: the amount paid by the purchaser, excluding any VAT or similar tax deductible by the purchaser, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place. (2.154)

R

Reappraisals reflect changes in the measured stock of assets due to the use of updated information that permits a reassessment of the size of the stock. (5.48, 5.49)

Reclassifications are changes in assets that result from situations in which an asset is used for a different purpose. A reclassification of an asset in one category should be offset by an equivalent reclassification in another category. (5.48, 5.49)

Remedial costs are incurred when production has already ceased with no provision having been made for the taking of remedial action while production was in progress. (4.194)

Rent is the income receivable by the owner of natural resources or land (the lessor or landlord) for putting the natural resource or land at the disposal of another institutional unit (a lessee or tenant) for use of the natural resource or land in production. (4.161)

Residence of an institutional unit: the economic territory with which it has the strongest connection, in other words, its centre of predominant economic interest. (2.122)

Residuals are flows of solid, liquid and gaseous materials, and energy, that are discarded, discharged or emitted by establishments and households through processes of production, consumption or accumulation. (2.92, 3.73)

Resource management activities are those activities whose primary purpose is preserving and maintaining the stock of natural resources and hence safeguarding against depletion. (4.13)

Resource management-specific services are resource management services produced by economic units for sale or own use. (4.96)

Resource rent is the economic rent that accrues in relation to environmental assets, including natural resources. (5.114)

Rest of the world: consists of all non-resident institutional units that enter into transactions with resident units, or have other economic links with resident units. (2.121)

Return flows of water comprise water that is returned to the environment. (3.210)

Return to environmental assets: the income attributable to the use of environmental assets in a production process after deducting all costs of extraction including any costs of depletion of natural resources. (5.116, 5.117)

Return to produced assets: the income attributable to the use of produced assets in a production process after deducting any associated consumption of fixed capital. (5.116, 5.141)

Reused water is waste water supplied to a user for further use with or without prior treatment, excluding the reuse (or recycling) of water within economic units. (3.207)

Revaluations relate to changes in the value of assets due to price changes and reflect nominal holding gains and losses on environmental assets. The nominal holding gain for environmental assets is calculated in the same way as for non-financial assets, as the increase in value accruing to the owner of the asset as a result of a change in its price over a period of time. (5.60)

S

Soil resources comprise the top layers (horizons) of soil that form a biological system. (5.320)

Soil water consists of water suspended in the uppermost belt of soil, or in the zone of aeration near the ground surface. (5.482)

Solid waste covers discarded materials that are no longer required by the owner or user. (3.84)

Specialist producers are those producers whose primary activity is the production of environmental goods and services. (4.33)

Subsidies are current unrequited payments that government units, including non-resident government units, make to enterprises on the basis of the levels of their production activities or the quantities or values of the goods or services that they produce, sell or import. (4.138)

Surface water comprises all water that flows over or is stored on the ground surface regardless of its salinity levels. Surface water includes water in artificial reservoirs, lakes, rivers and streams, snow and ice and glaciers. (5.479)

Sustainable yield is the surplus or excess of animals or plants that may be removed from a population without affecting the capacity of the population to regenerate itself. (5.82)

T

Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units. (4.149)

Terminal costs are costs that can and should be anticipated during the production periods prior to closure of an operating asset. (4.194)

Timber resources are defined, within the relevant areas, by the volume of trees, living or dead, and include all trees regardless of diameter, tops of stems, large branches and dead trees lying on the ground that can still be used for timber or fuel. (5.350)

Transaction: an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that it is analytically useful to treat like a transaction, often because the unit is operating in two different capacities. (2.96)

Transfer is a transaction in which one institutional unit provides a good, service or asset to another unit without receiving from the latter any good, service or asset in return as a direct counterpart. (4.136)

U

Unit resource rent is the resource rent per unit of resource extracted. (5.157)

Unused extraction covers extracted natural resources in which the extractor has no ongoing interest (for example, mining overburden, mine dewatering and discarded catch) (3.50)

Urban run-off is that portion of precipitation on urban areas that does not naturally evaporate or percolate into the ground, but flows via overland flow, underflow, or channels, or is piped into a defined surface-water channel or a constructed infiltration facility. (3.213)

User cost of produced assets: the sum of the consumption of fixed capital and the return to produced assets. (5.141)

V

Value added (gross) is the value of output less the value of intermediate consumption. Net value added is gross value added less consumption of fixed capital. (2.36)

W

Waste. (See Solid waste)

Waste water is discarded water that is no longer required by the owner or user. (3.86)

Water consumption (See Final water use)

Water resources consist of fresh and brackish water in inland water bodies, including groundwater and soil water. (5.476)

5 References

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