Definition and classification of assets in the revised SEEA

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UNSD
What is the SEEA?

- Satellite system of the SNA?
- System in its own right?
- What sets the SNA apart from the SEEA?
- Is the SEEA a simple extension of the SNA that expands its asset boundary and flow account?
- Is the SEEA a system approach to the environment providing information on the state and quality of the ecosystems and their ability of providing services?
Asset accounts in the SEEA

- Describe the state of the environment
- Stocks and changes in stocks – quantity and quality
- Include produced and non-produced assets (natural capital)
- Closer to the information system of the scientific community
- Strength of the SEEA is to bring together science and economics
Two systems

Economy
- Fixed assets
- Inventories (excluding cultivated biological resources)
- Valuables
- Financial assets

Environment/Ecosystems
- Cultivated biological resources
- Natural resources
  - Land
  - Water resources
  - Uncultivated biological resources
  - Soil resources
  - Mineral and energy resources
- Quality and health of ecosystems

Resource → Impact
## Implications on the classification structure

<table>
<thead>
<tr>
<th>Economy</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated biological resources</td>
<td>Ecosystems</td>
</tr>
<tr>
<td>Timber resources</td>
<td>Terrestrial</td>
</tr>
<tr>
<td>Natural resources</td>
<td>Forest</td>
</tr>
<tr>
<td>Land</td>
<td>Forest land</td>
</tr>
<tr>
<td>Forest land</td>
<td>Timber resources (from cultivated and uncultivated forests)</td>
</tr>
<tr>
<td>Uncultivated biological resources</td>
<td>Other services</td>
</tr>
<tr>
<td>Timber resources</td>
<td>Other services</td>
</tr>
<tr>
<td>Ecosystems</td>
<td></td>
</tr>
<tr>
<td>Forest</td>
<td></td>
</tr>
<tr>
<td>Other services</td>
<td></td>
</tr>
</tbody>
</table>
Definition of asset

- **2008 SNA**

An asset is a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period of time. It is a means of transferring value from one accounting period to another. (2008 SNA, para 3.30).
SEEA-2003

Defined in terms of the provision of environmental functions which provide use and non-use benefits
Revised SEEA - proposal

An asset is a store of value representing a benefit or series of benefits accruing to the owner.

- Value: capacity of the ecosystem of providing services
- Benefits: rewards for providing services – use and non-use benefits
- Owner: could be global owner (atmosphere, oceans)
From 1993 SNA to 2008 SNA - Changes in the asset classification

- “Tangible non-produced asset” replaced with “natural resources”
- “Intangible non produced assets” split into “Contract leases and licenses” and “Goodwill and marketing assets”
- Land improvement
- Cost of ownership transfers on land recorded as land improvements
- Cost of ownership transfers on non-produced assets other than land added to the value of non-produced asset
- “Mineral exploration” replaced with “Mineral exploration and evaluation”
Land and natural resources

• 2008 SNA

*Natural resources consist of naturally occurring assets such as land, water resources, uncultivated forests and deposits of minerals that have an economic value*
**Land and natural resources**

- **SEEA-2003**
  - Natural resource assets are defined as those elements of the environment that provide use used in economic activity (or that may provide such benefits one day) and that are subject primarily to quantitative depletion through human use. They are sub-divided into four categories: mineral and energy resources, soil resources, water resources and biological resources.

- Land and surface water assets are defined as the areas within the national territory that provide direct or indirect use benefits (or that may provide such benefits one day) through the provision of space for economic and non-economic (for example recreational) human activities.
## Land and natural resources

<table>
<thead>
<tr>
<th>2003 SNA</th>
<th>SEEA 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land part of natural resources</td>
<td>Land at the higher level – not as part of natural resources</td>
</tr>
<tr>
<td>Natural resources – only naturally occurring assets (excludes cultivated assets, part of produced assets)</td>
<td>All materials that are results of production or natural process (includes cultivated assets)</td>
</tr>
</tbody>
</table>

Difference in the hierarchy
Land and natural resources

• Should the consistency with the SNA be maintained? If yes,

Natural resources consist of naturally occurring assets such as land, mineral and energy resources, soil resources, water resources and uncultivated biological resources that can be primarily used for economic activities now or in the future by the owner.
Land and soil

- Breakdown of land to follow the land classification
  - land cover or land use? What level of disaggregation?
- SNA 2008 – soil is included with land
- SEEA-2003 – soil separate resource

Should soil be maintained as a separate item in the classification of natural resources (Volume 1)?
Should soil appear in the classification of ecosystem assets (Volume 2)?
Mineral and energy resources consist of mineral and energy reserves located on or below the earth’s surface that are economically exploitable, given current technology and relative prices.

- **SNA 2008**
  
  *Mineral and energy resources consist of mineral and energy reserves located on or below the earth’s surface that are economically exploitable, given current technology and relative prices.*

- **SEEA-2003**
  
  *Mineral and energy resources include subsoil deposits of fossil fuels, metallic minerals and non-metallic minerals.*

- **Revised SEEA- proposal**
  
  *Mineral and energy resources include known deposits of mineral and energy resources such as petroleum resources, non-metallic minerals and metallic minerals that can be primarily used for economic activity no or in the future by the owner.*
# Classification of mineral and energy resources

<table>
<thead>
<tr>
<th>EA.1</th>
<th>Natural resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mineral and energy resources</td>
</tr>
<tr>
<td></td>
<td>Petroleum resources</td>
</tr>
<tr>
<td>EA.111</td>
<td>Natural gas (including NGL and condensate)</td>
</tr>
<tr>
<td>EA.111</td>
<td>Crude Oil</td>
</tr>
<tr>
<td>EA.111</td>
<td>Natural bitumen, extra heavy oil, shale oil, sand oil and others n.e.c.</td>
</tr>
<tr>
<td>EA.112</td>
<td>Non-metallic minerals and solid fossil energy resources</td>
</tr>
<tr>
<td>EA.112</td>
<td>Non-metallic minerals except for coal and peat</td>
</tr>
<tr>
<td>EA.112</td>
<td>Coal</td>
</tr>
<tr>
<td>EA.112</td>
<td>Peat</td>
</tr>
<tr>
<td>EA.113</td>
<td>Metallic minerals</td>
</tr>
<tr>
<td>EA.113.1</td>
<td>Uranium ores</td>
</tr>
<tr>
<td>EA.113.2</td>
<td>Other metallic minerals</td>
</tr>
</tbody>
</table>
Biological resources

- 2008 SNA
  Non-cultivated biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products over which ownership rights are enforced but for which natural growth and regeneration is not under the direct control, responsibility and management of institutional units

- SEEA-2003
  Non-cultivated biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products that can be primarily used for economic activity now or in the future by the owner
Water resources

- 2008 SNA
  Water resources consist of surface and groundwater resources used for extraction to the extent that their scarcity leads to the enforcement of ownership or use rights, market valuation and some measure of economic control

- SEEA-Water
  Water resource assets are defined as water found in fresh and brackish surface and groundwater bodies within the national territory that provide direct use benefits, now or in the future (option benefits), through the provision of raw material, and may be subject to quantitative depletion through human use

- Revised SEEA
  Water resource assets are defined as water found in fresh and brackish surface and groundwater bodies that can be primarily used for economic activity now or in the future by the owner
Water resources - classification

EA.13 Water Resources
  EA.131 Surface water
    EA.1311 Artificial reservoirs
    EA.1312 Lakes
    EA.1313 Rivers and streams
    EA.1314 Glaciers, snow and ice
  EA.132 Groundwater
  EA.133 Soil water
Questions to the LG?

Q1: Do you agree that the classification of assets presented in Volume 1 should structure the classification in line with the 2008 SNA asset classification?

Q2: Do you agree with the proposed definition of asset in the revised SEEA?

Q3: Do you agree with the explanation of what is intended with value and benefits?

Q4: Do you agree that the revised SEEA asset classification should align with the changes in the 2008 SNA?

Q5: Is there a need to rectify the asymmetry in recording the costs of ownership transfer on non-produced assets other than land as part of produced assets and thus diverging from the SNA?
Questions to the LG?

Q6: Do you agree with including land as part of natural resources (with a changed definition)?

Q7: What is your opinion in maintaining the distinction between produced and non-produced assets in the presentation of the asset classification, that is maintaining the hierarchy of the classification as in the 2008 SNA?

Q8: Do you agree with the proposed definition of natural resources?

Q9: Do you agree to revisit the definition and breakdown of the land classification to ensure it is aligned with the SEEA classification of assets?
Questions to the LG?

Q10: Should soil be maintained as a separate item in the asset classification (Volume 1) or should it combined with land? Should it appear as part of the ecosystem classification?

Q11: If soil is combined with land, will it appear explicitly as an item in the classification or only included in the definition?

Q12: Do you agree with the proposed definition of mineral and energy resources?

Q13: Do you agree with the proposed breakdown of the classification of mineral and energy resources in the SEEA-Energy (Table 3)?
Questions to the LG?

Q14: Do you agree with the proposed definition of non-cultivated biological resources?

Q15: Do you agree with the proposed definition of water resources assets?

Q16: Do you agree with aligning the revised SEEA with the SEEA-Water asset classification?