System of Environmental Economic Accounting
SEEA Energy Asset accounts

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Good measurement for good management

- Sustainable management of the environment contributes to social and economic development
- **Accounting** for the environment means nature can be **managed** as a valuable asset and **reflected in policy**
Statistics for sustainable development

Sustainable Development Policy

- Evidence Based
- Integrated

Integrated Information System

- Applies a uniform standard approach
- Integrates environmental, economic and social information
- Captures synergies and trade-offs
Silo approach → Integrated statistics

Accounts to integrate statistics:

• Address institutional arrangements
• Integrate statistical production process and services
• Ensure consistency between basic data, accounts and indicators

Agency A
  Policy A
  Info A
  Data A

Agency B
  Policy B
  Info B
  Data B

Agency C
  Policy C
  Info C
  Data C

Indicators

Accounts
  SNA | SEEA

Basic data
  Economy | Environment | Social

SEEA
The SEEA Central Framework was adopted as an international statistical standard by the UN Statistical Commission in 2012.

The SEEA Experimental Ecosystem Accounting complements the Central Framework and represents international efforts toward coherent ecosystem accounting.

The SEEA Energy is fully consistent with SEEA Central Framework and provides further details on the energy accounts.
What is the SEEA?

SEEA is the international statistical standard for measuring the relationship between the environment and the economy.

- Two perspectives: individual environmental assets (Central Framework) and ecosystems (Experimental Ecosystem Accounting)
- Stocks and flows
- Coherent and internally consistent
- Integrated/Linked to SNA
- Comprehensive
- Time series measuring same concept over time
- Apply to both physical and monetary based data
SEEA Conceptual Framework

- **Economic Units**
  - Enterprises
  - Households
  - Government
  - Non-profit institutions

- **Activities**
  - Production
  - Consumption
  - Accumulation

- **Instruments**
  - Financial/Monetary
  - Taxes/subsidies
  - Financing
  - Resource rent
  - Permits

- **Environment**
  - Natural inputs
  - Ecosystem services
  - Residuals (e.g., emissions, waste)
  - Individual Environmental Assets (e.g., land, water, mineral and energy, soil, aquatic)
  - Ecosystem Assets
  - Transboundary Environmental Flows

- **Imports/Exports**

- Outside territory of reference

- Territory of reference
What are assets?

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 (same definition as in the SNA).

In SEEA, asset accounts in physical terms may have a broader scope as there is no requirement that an asset must deliver economic benefits.
Mineral and energy resource account

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

- For reporting purposes, the SEEA 2012 proposes to aggregate known stocks of mineral and energy resources into 3 classes, called SEEA-2012 classes A, B and C.

- SEEA-2012 classes are defined using the UNFC-2009 classification.

- Main advantages of the UNFC-2009 classification for SEEA users:
  > Internationally agreed classification.
  > It applies to both mineral and energy resources.
  > It can be mapped with other classifications used by countries (e.g. with CRIRSCO template for minerals, with SPE-PRMS for oil and gas, and soon with Russian classifications).
On-going work (1/2)

- Countries have started to compile mineral and energy resource asset accounts
- The OECD is currently working with a dedicated Task Force in order to implement some modules of the SEEA. Mineral and energy resource accounts are one of the OECD priorities.
- Recent discussions between the OECD and the EGRC in order to:

Main objective here: Ensure that references to UNFC-2009 sub-classes and UNFC-2009 codes in SEEA definitions are consistent.

Example:

SEEA-2012 Class A: Commercially Recoverable Resources. This class includes on-production projects, projects approved for development and projects justified for development, i.e. projects that fall in categories E1 and F1 and where the level of confidence in the geologic knowledge is high (G1), moderate (G2) or low (G3).
On-going work (1/2)

<table>
<thead>
<tr>
<th>Class A</th>
<th>UNFC-2009 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-production</td>
<td>[E1.1+E1.2, F1.1, G1 to G3]</td>
</tr>
<tr>
<td>Approved for development</td>
<td>[E1.1+E1.2, F1.2, G1 to G3]</td>
</tr>
<tr>
<td>Justified for Development</td>
<td>[E1.1+E1.2, F1.3, G1 to G3]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Class B</th>
<th>UNFC-2009 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Pending</td>
<td>[E1+E2, F2.1, G1 to G3]</td>
</tr>
<tr>
<td>Development on Hold</td>
<td>[E2, F2.2, G1 to G3]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class C</th>
<th>UNFC-2009 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Unclarified</td>
<td>[E3.2, F2.2, G1 to G3]</td>
</tr>
<tr>
<td>Development Not viable</td>
<td>[E3.3, F2.3, G1 to G3]</td>
</tr>
</tbody>
</table>

Additional quantities in place / Discovered but unrecoverable resources

[ Amendments: The table contains information on project status, with codes for each stage. ]

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- [E1.1, F2.1, G1 to G3] or [E2, F1.3+F2.1, G1 to G3]
- [E3.2, F1.3+F2.1+F2.2, G1 to G3]
- [E3.3, F1.3+F2.1+F2.2+F2.3, G1 to G3]
- [E3.3, F4, G1 to G3]
2. Validate mapping tables between SEEA-2012 classes and different classification systems for mineral and energy resources.

Main objective here: Ensure that countries relying on different classification systems apply the SEEA 2012 in a consistent way.

Example:
SEEA and UNFC

- SEEA applies UNFC in the mineral and energy accounts
- The SEEA implementation will promote the use of UNFC in countries
- Important to keep each other informed of advances and issues that arise in implementation
- EGRC to provide input in the interpretation of UNFC in SEEA
THANK YOU

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