Introduction to the SEEA: Central Framework and Experimental Ecosystem Accounts

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1. Context – Information needs for sustainable development
International context

- Agenda 21
- Rio+20 outcome document
- SDGs monitoring
- European legislation
- International initiatives
  - OECD’s Green Growth Strategy, WAVES, VANTAGE, UNEP-led Green Economy programme, CBD Aichi Targets, TEEB
Sustainable development: Integration

- Sustainable development policy requires an understanding of synergies and trade-offs
- Environmental policy must also consider a number of different natural systems which are interconnected
  - E.g. Water-Energy-Food-Climate Change nexus
Statistics for sustainable development

Sustainable Development Policy should:

1. Take an integrated approach
2. Be based on evidence

Need to develop an integrated information system to support policy analysis and decisions, which captures:

- The multiple issues relevant to sustainable development
- The interconnections between these issues
Silo approach  →  Integrated statistics

Accounts to integrate statistics:

- Linking policy needs and statistics
- Understanding the institutional arrangements
- Integrated statistical production process/chain and services
- Consistency between basic data, accounts and tables and indicators
Silo approach  ➔  Integrated statistics
2. The SEEA: Central framework and experimental ecosystem accounts
The System of Environmental Economic Accounting (SEEA)

- An internationally agreed statistical framework to measure the environment and its interactions with economy

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

- The **SEEA Experimental Ecosystem Accounts** complement the Central Framework and represent international efforts toward coherent ecosystem accounting
Systems of integrated information

- SEEA-Energy (forthcoming)
- SEEA-Agriculture, Forestry and Fisheries (forthcoming)
- Others (forthcoming)
One environment: Two perspectives

**SEEA Central Framework:**
Individual Environmental Assets/Resources
- Timber
- Water
- Soil
- Fish

**SEEA Experimental Ecosystem Accounts:**
Ecosystem Assets (spatially based)
- Forests
- Lakes
- Agricultural areas

Ecosystem Assets are environmental assets viewed from a systems perspective
Relationship between approaches
The SEEA central framework accounts

1. Flow accounts: supply and use tables for natural inputs, products and residuals generated by economic activities.

2. Stock accounts for environmental assets
   • Natural resources and land

3. Activity / purpose accounts that explicitly identify environmental transactions already existing in the SNA.
   • Environmental Protection Expenditure (EPE) accounts
   • Environmental taxes and subsidies

4. Combined physical and monetary accounts that bring together physical and monetary information for derivation indicators, including depletion adjusted aggregates
SEEA experimental ecosystem approach

- An integrated measurement framework based on stocks (ecosystem assets) and flows (ecosystem services)

- **Ecosystem Asset**: A spatial area with specific characteristics
  - Ecosystem Extent
  - Ecosystem Condition

- **Ecosystem Services**: The contribution of ecosystems to benefits used in human and economic activity → ‘Final Ecosystem Services’
  - **Provisioning services**: products harvested/extracted from ecosystems
  - **Regulating services**: regulation of biological, hydrological & climate processes
  - **Cultural services**: non-material benefits of ecosystems (e.g. tourism)
Policy quadrants and the SEEA

I. Improving access to services and resources

II. Managing supply and demand and reducing impacts

III. Improving the state of the ecosystems

IV. Mitigating and adapting to extreme events
3. International perspective
SEEA has been adopted by various initiatives;

**International Policy Frameworks:**

- European Union: Beyond GDP
- Aichi Target 2 (CBD)
- OECD: Green Growth Strategy
- SCP (UNEP); Water (GEMI); Sustainable Tourism (WTO)....
- WAVES (World Bank)

**Underlying Statistical Framework:**

SNA and SEEA (Central Framework and EEA)

Country participation in and reporting to international initiatives
Sustainable Development Goals and SEEA

The SEEA is an important statistical framework for monitoring the SDGs in an integrated way:
Key points

1. Implementation and institutionalization of the SEEA can support the development of *integrated information systems* to inform and monitor sustainable development policy

2. The Central Framework and Ecosystem Accounts take different perspectives and are complementary

3. The SEEA represents an important statistical framework for the SDG indicators
Questions or comments?