

System of Environmental Economic Accounting



System of
Environmental
Economic
Accounting

OVERVIEW OF THE SEEA AND ITS APPLICATIONS

Leila Rohd-Thomsen

United Nations Statistics Division

23 February, Chiba, Japan



United Nations

Content

- Why environmental-economic accounting?
- Advancing environmental-economic accounting
- Applications of the SEEA
 - > Measuring the SDGs
 - > Accounts for policy – an example

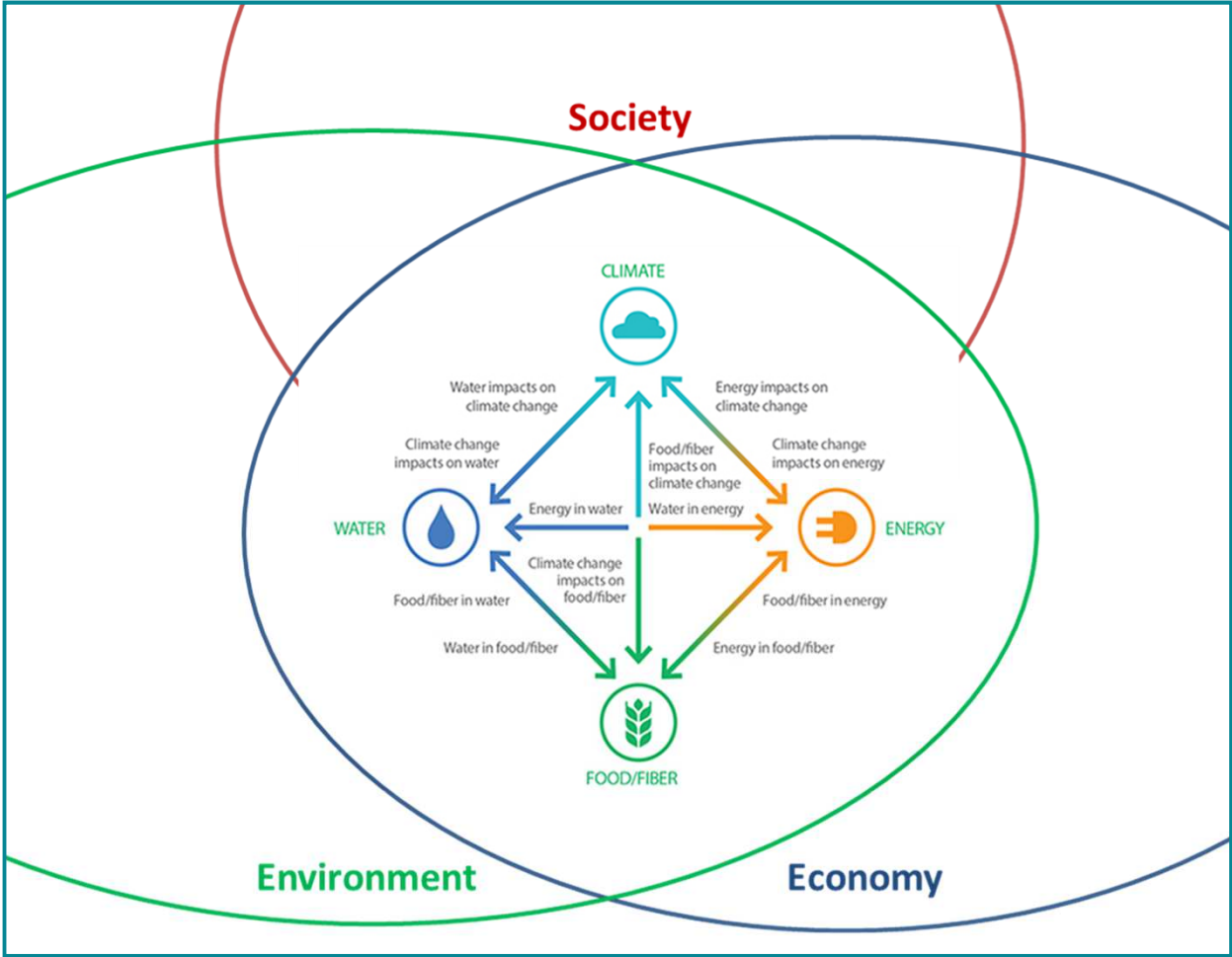
WHY ENVIRONMENTAL- ECONOMIC ACCOUNTING?

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**

Integration for sustainable development



Integrated Policy



Integrated Information

Statistics for sustainable development

Sustainable Development Policy

Evidence Based

Integrated

Integrated Information System

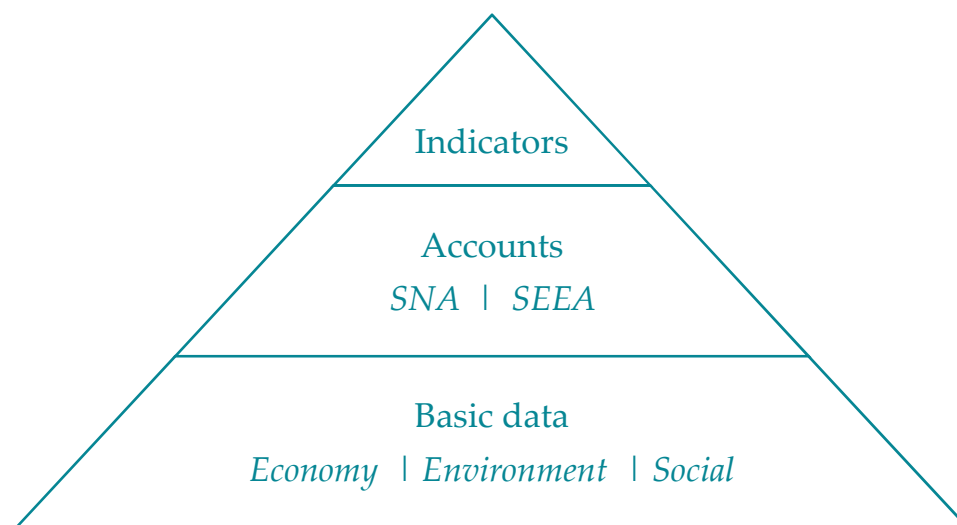
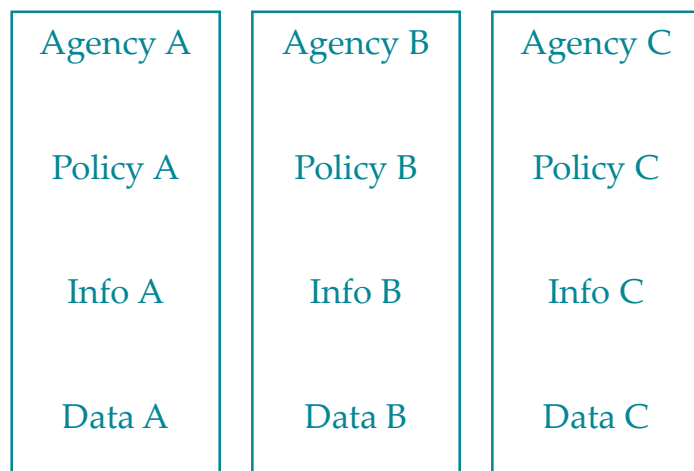
Applies a uniform
standard approach

Integrates
environmental,
economic and social
information

Captures synergies and
trade-offs



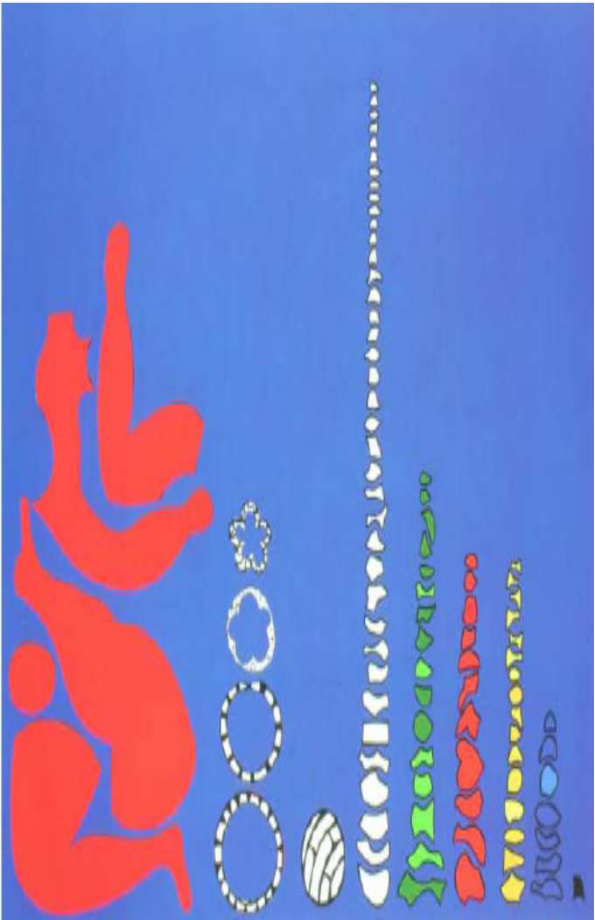
Silo approach → Integrated statistics



Accounts to integrate statistics:

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

Silo approach → Integrated statistics



ADVANCING ENVIRONMENTAL- ECONOMIC ACCOUNTING

1. Legal and political commitments



1992: CBD Aichi Target 2

1992: Agenda 21 (Rio)

2012: The Future we Want (Rio+20)

2015: Sustainable Development Goals

European Legislation

2. International statistical standard

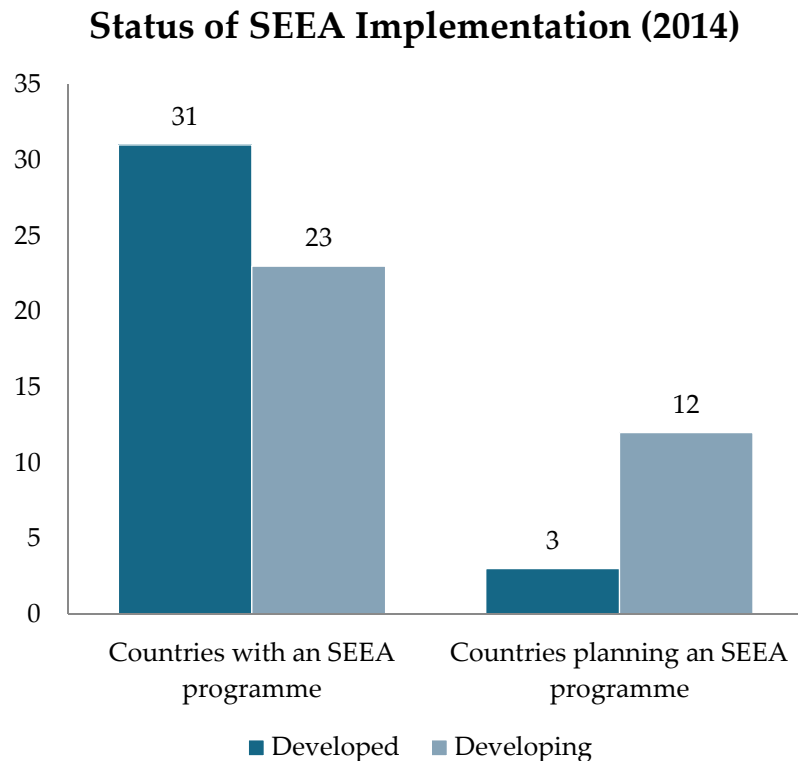
- The **SEEA Central Framework** was adopted as an international statistical standard by the UN Statistical Commission in 2012
- The **SEEA Experimental Ecosystem Accounting** complements the Central Framework and represents international efforts toward coherent ecosystem accounting



3. Implementation of the SEEA

- **Implementation strategy (2013) objectives:**
 - > Adopt the SEEA as the measurement framework for sustainable development
 - > Mainstream SEEA implementation in countries
 - **Target 100 countries by 2020** for adoption of SEEA
 - > Establish technical capacity for regular reporting
- A number of **international policy frameworks** have adopted the SEEA as the underlying statistical framework;
 - > European Union – Beyond GDP
 - > CBD – Aichi Target 2
 - > OECD: Green growth strategy
 - > World Bank: WAVES
 - > 10YFP for Sustainable Consumption and Production

Status of SEEA implementation



- Global Assessment on Environmental Economic Accounting 2014
 - > 84 countries responded
 - > **54 countries have an SEEA program**
- **Accounts most commonly compiled;**
 - > Air Emissions, Material Flows, Energy (*due to Eurostat legislation*)
- **Priorities accounts going forward;**
 - > Developed Countries: Energy, EPEA and EGSS
 - > Developing Countries: Energy, Water and Environmental Taxes and Subsidies

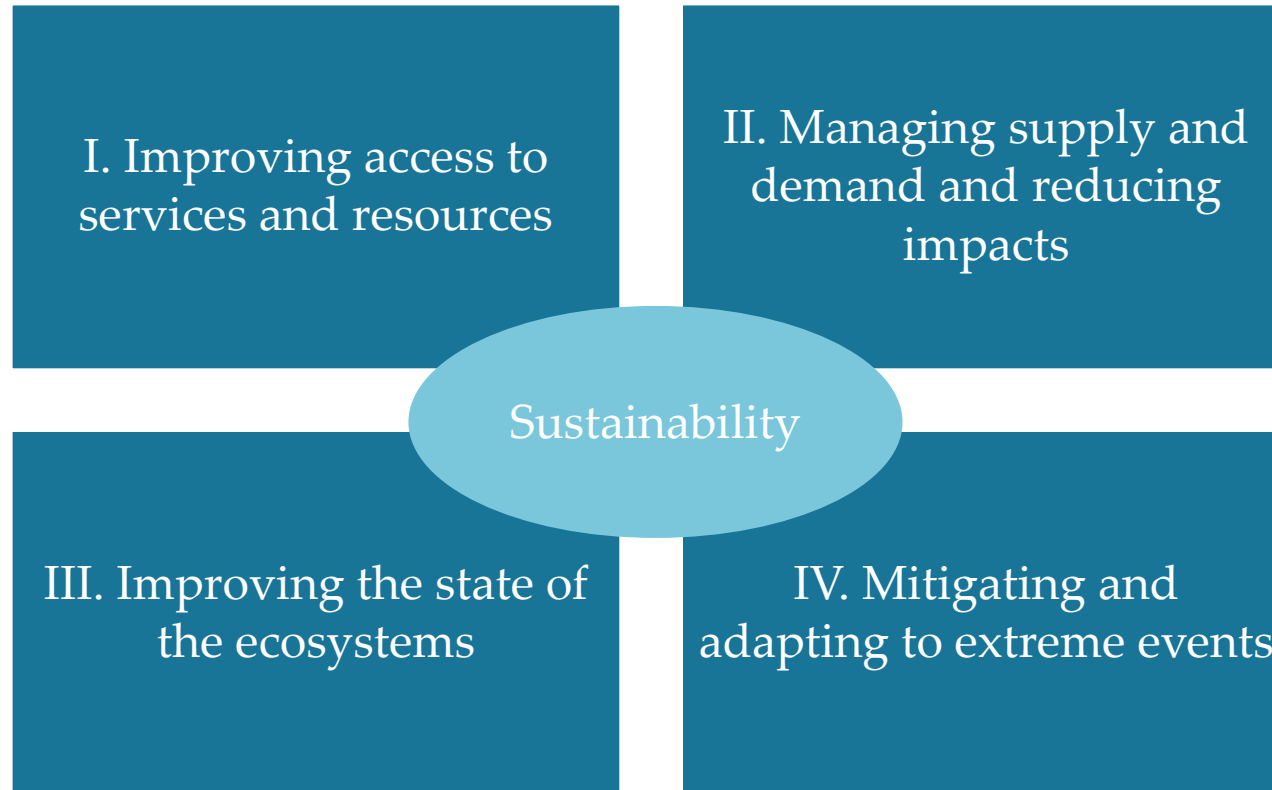
APPLICATIONS OF ENVIRONMENTAL- ECONOMIC ACCOUNTING

Integrated environmental and socio-economic data for policy

Information from the SEEA can be used to:

- Analyze the impact of economic policies on the environment and vice versa
- Identify socio-economic drivers, pressures, impacts and responses affecting the environment
- Provide a quantitative basis for policy design, including;
 - > Productivity analysis
 - > Natural resource management
- Support greater precision for environmental regulations and resource management strategies
- Develop indicators that express the environment-economy relationship

Policy quadrants and the SEEA



Sustainable Development Goals and SEEA



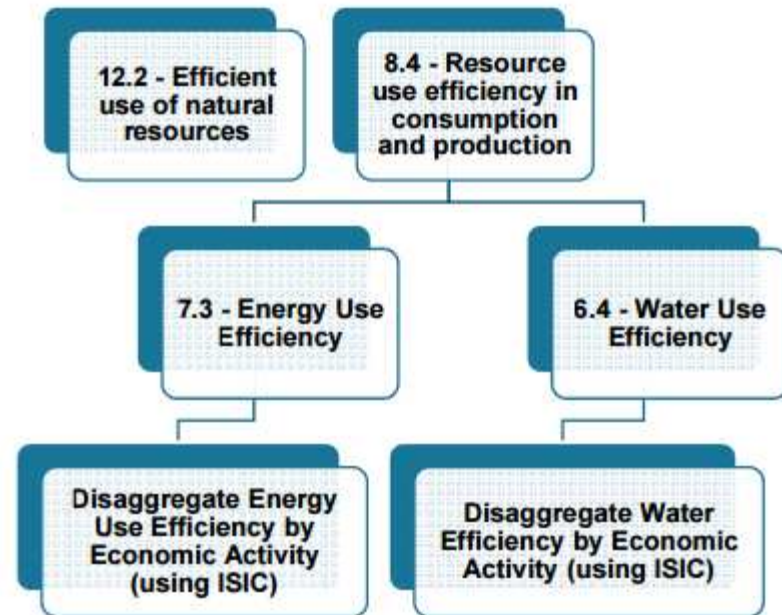
The SEEA is an important statistical framework for **monitoring the SDGs** in an integrated way

Integrated architecture for SDGs

Integrated monitoring for the SDGs requires methodological consistency.

The SEEA should be the basis for:

1. The development of coherent environmental-economic SDG indicators
2. The disaggregation of SDG indicators to inform national policy (spatial, sectoral, etc.)

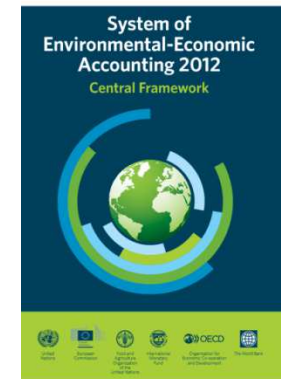
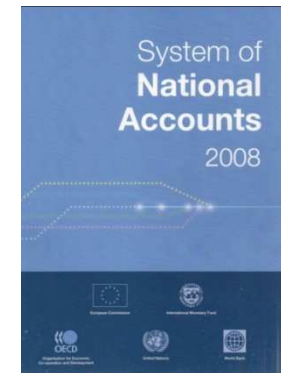


Indicators based on standards

Indicators based on Standards

- Higher quality
- International comparability
- Comprehensive basis for (dis)aggregation
 - Standards for Statistics
 - Aligned Definitions and Classifications
- Improved capacity to compare and/or combine statistics from different sectors
 - Basis for coherent and comprehensive data sets

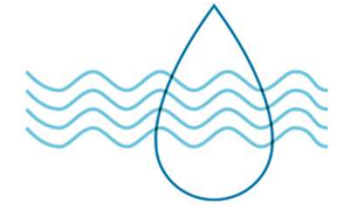
Frameworks to coherently integrate information:



Policy application – Example

- **Increasing competition for scarce water resources:**
 - > Growing mineral sector → **Increased water demand**
- **Need for a diversified economy:**
 - > Ensure energy security → Coal mining → Increased water demand
 - > Support other sectors (agriculture, services, manufacturing) → **Manage rising water costs**
- **Need for social and environmental protection:**
 - > Maintain reliable and affordable domestic supply → **Manage competing uses** (from mines - esp. rural)
 - > Ensure sustainability of use → **Avoid over-abstraction** of groundwater (from mines)

Water accounts – Information



Physical Supply and Use Table

- Combined water use and national accounts data:

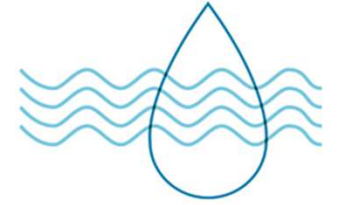
	Mineral Mining	Coal Mining	Agriculture	Manufacturing	Services
Water Use	HIGH	HIGH	VERY HIGH	LOW	LOW
Value Added	HIGH	LOW	LOW	HIGH	HIGH
Formal Employment	LOW	LOW	LOW	HIGH	HIGH
Important Considerations	High Growth	Energy Security	Food Security	Employment & protection from price volatility	

- Illustrated supply-side issues - **losses**
- Illustrated potential of **wastewater re-use** and **alternate sources**

Physical Asset Account

- Enabled monitoring of reservoirs and illustrated **spatial concerns**

Water accounts – Policy response



1. Invest in water supply system to reduce losses
2. Increase wastewater re-use and recycling, particularly in mining and agriculture
3. Use alternate sources of untreated freshwater and sea water (to protect supply of potable water to households and services)
4. Address cost discrepancies in supply of water to different sectors
5. Address over-extraction of groundwater by large mines



THANK YOU

seea@un.org