


System of  
Environmental  
Economic  
Accounting

# OVERVIEW OF THE SEEA AND ITS APPLICATIONS

Sokol Vako  
United Nations Statistics Division



United Nations

The image is a slide with a white background. In the top left corner, there is a small version of the blue geometric logo and the text "System of Environmental Economic Accounting". The main content is a large blue rectangular area with white text. The text reads "OVERVIEW OF THE SEEA AND ITS APPLICATIONS" in large, bold, white capital letters. Below this, in smaller white text, is "Sokol Vako" and "United Nations Statistics Division". At the bottom center of the slide, there is a small United Nations logo and the text "United Nations".

## Content

- Why environmental-economic accounting?
- Advancing environmental-economic accounting
- Applications of the SEEA – an example



## WHY ENVIRONMENTAL- ECONOMIC ACCOUNTING?



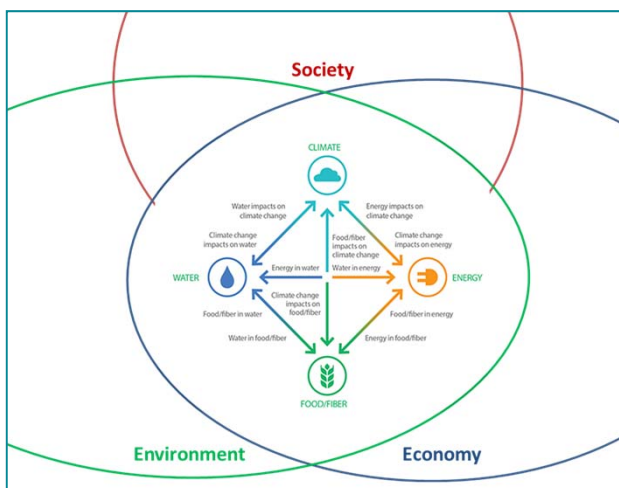
## Good measurement for good management



- 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

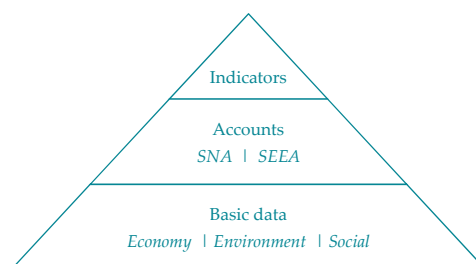
Captures synergies and trade-offs



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## Silo approach → Integrated statistics

Agency A	Agency B	Agency C
Policy A	Policy B	Policy C
Info A	Info B	Info C
Data A	Data B	Data C



### Accounts to integrate statistics:

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



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## 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



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## 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



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## The SNA and SEEA: Systems of integrated information

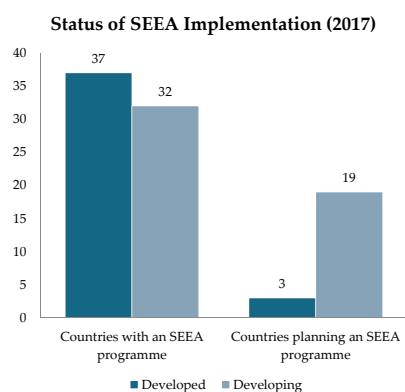


## 3. Implementation of the SEEA

- **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 2017
  - > 109 countries responded
  - > **69 countries have an SEEA program**
- **Accounts most commonly compiled;**
  - > EPEA, Material Flows, Energy (*due to Eurostat legislation*)
- **Priorities accounts going forward;**
  - > Developed Countries: Energy, EPEA and EGSS
  - > Developing Countries: Energy, Water and Environmental Protection Expenditures



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## Implementation tools

- Implementation Strategy
- Implementation Guide and Diagnostic Tool
- Technical Notes and Core Tables
- Compilation Guidelines
  - > Water
  - > More being developed...
- SEEA Training
  - > Current online and in-person phase
  - > In-depth modules being further developed



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# APPLICATIONS OF ENVIRONMENTAL- ECONOMIC ACCOUNTING



## 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
<b>Important Considerations</b>	<b>High Growth</b>	<b>Energy Security</b>	<b>Food Security</b>	<b>Employment &amp; protection from price volatility</b>	

- 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



