



# Introduction to the SEEA: Central Framework and Experimental Ecosystem Accounts

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# 1. Context – Information needs for sustainable development



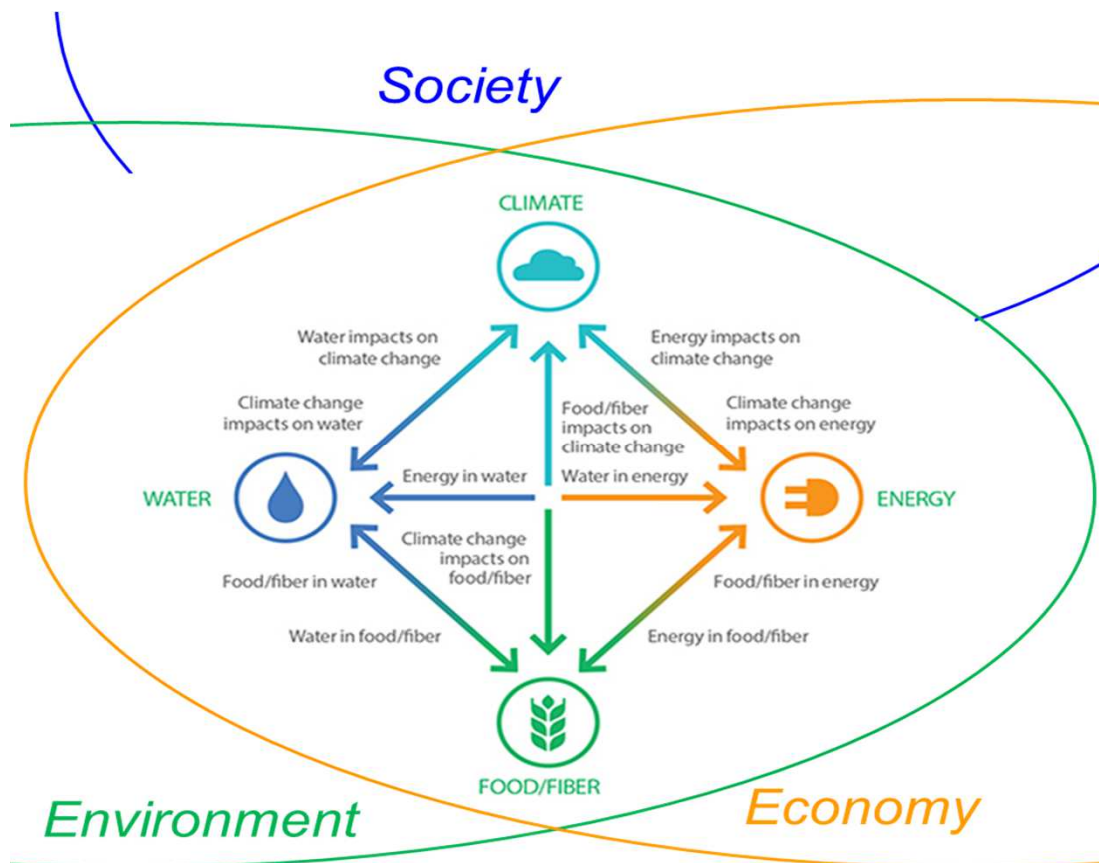
## International context

- Agenda 21
- Rio+20 outcome document
- High-Level Panel Report on the Post-2015 Development Agenda
- 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;

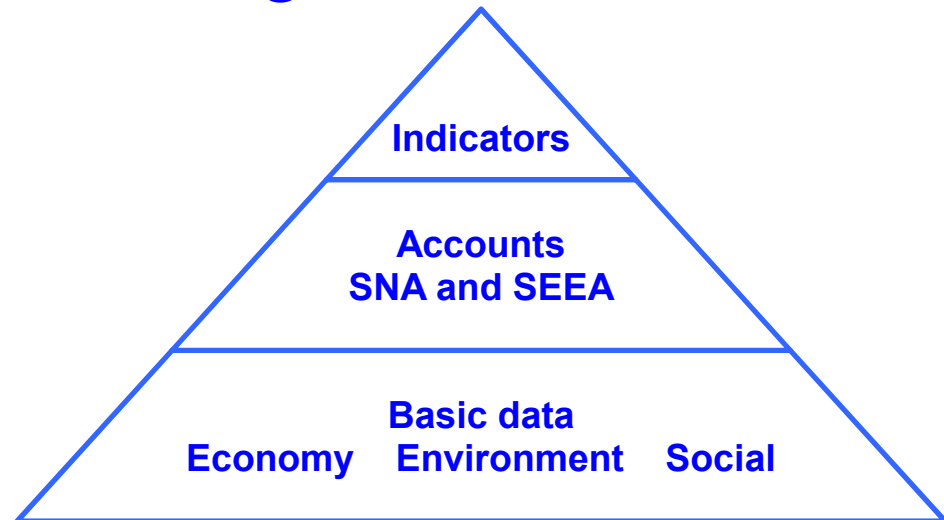
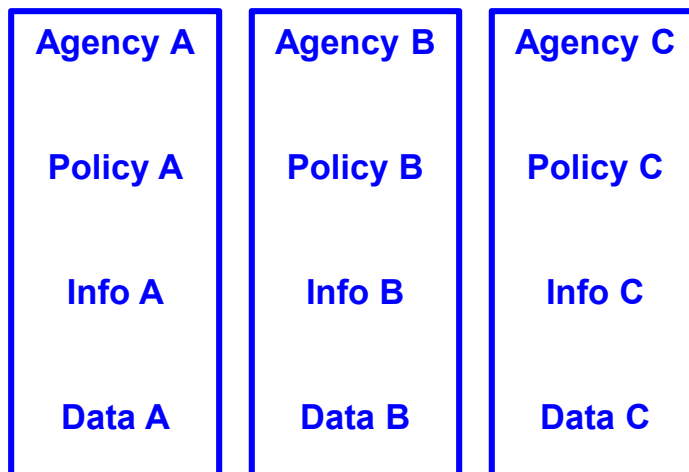
- The multiple issues relevant to sustainable development
- The interconnections between these issues



## Silo approach



## Integrated statistics



Accounts to integrate statistics:

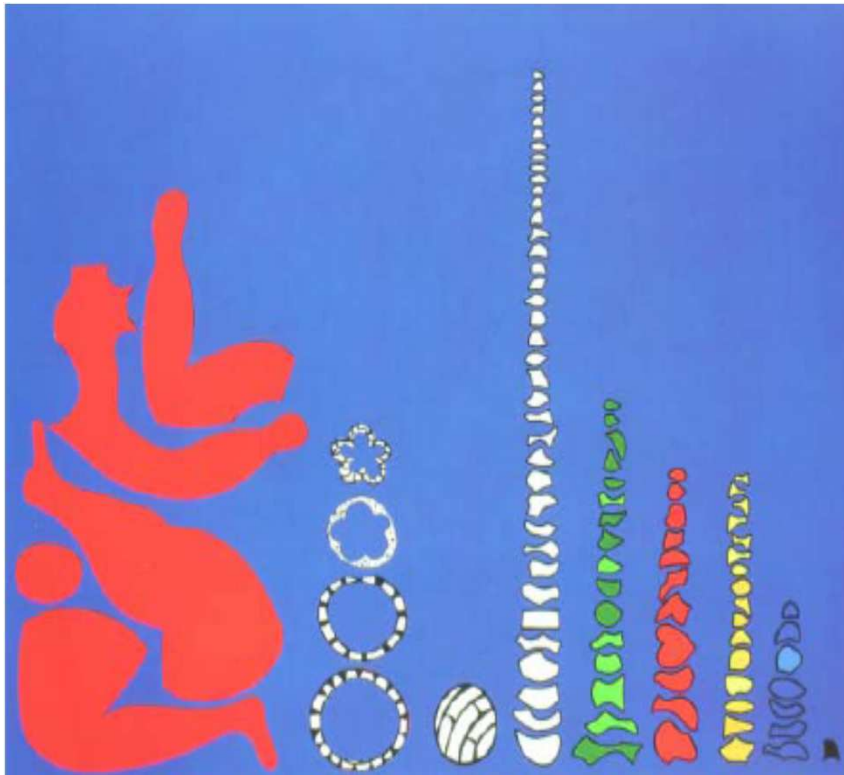
- Linking policy needs and statistics
- Understanding the institutional arrangements
- Integrated statistical production process/chain and services
- Consistency between basic data, accounts and tables and indicators



Silo approach



Integrated statistics







## 2. The SEEA: Central framework and experimental ecosystem accounts



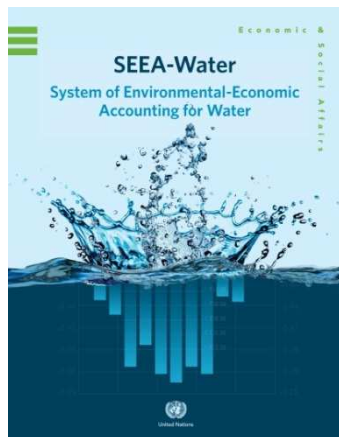
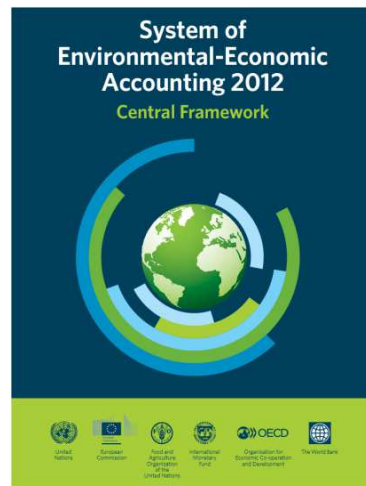
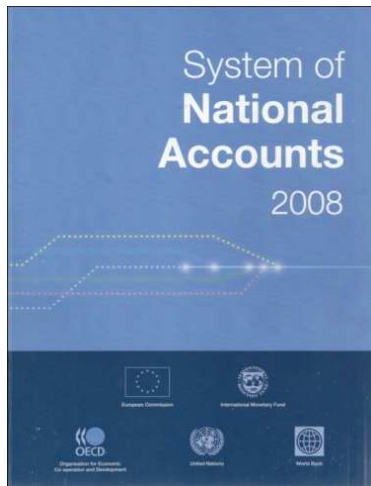
# The System of Environmental Economic Accounting (SEEA)

- 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:

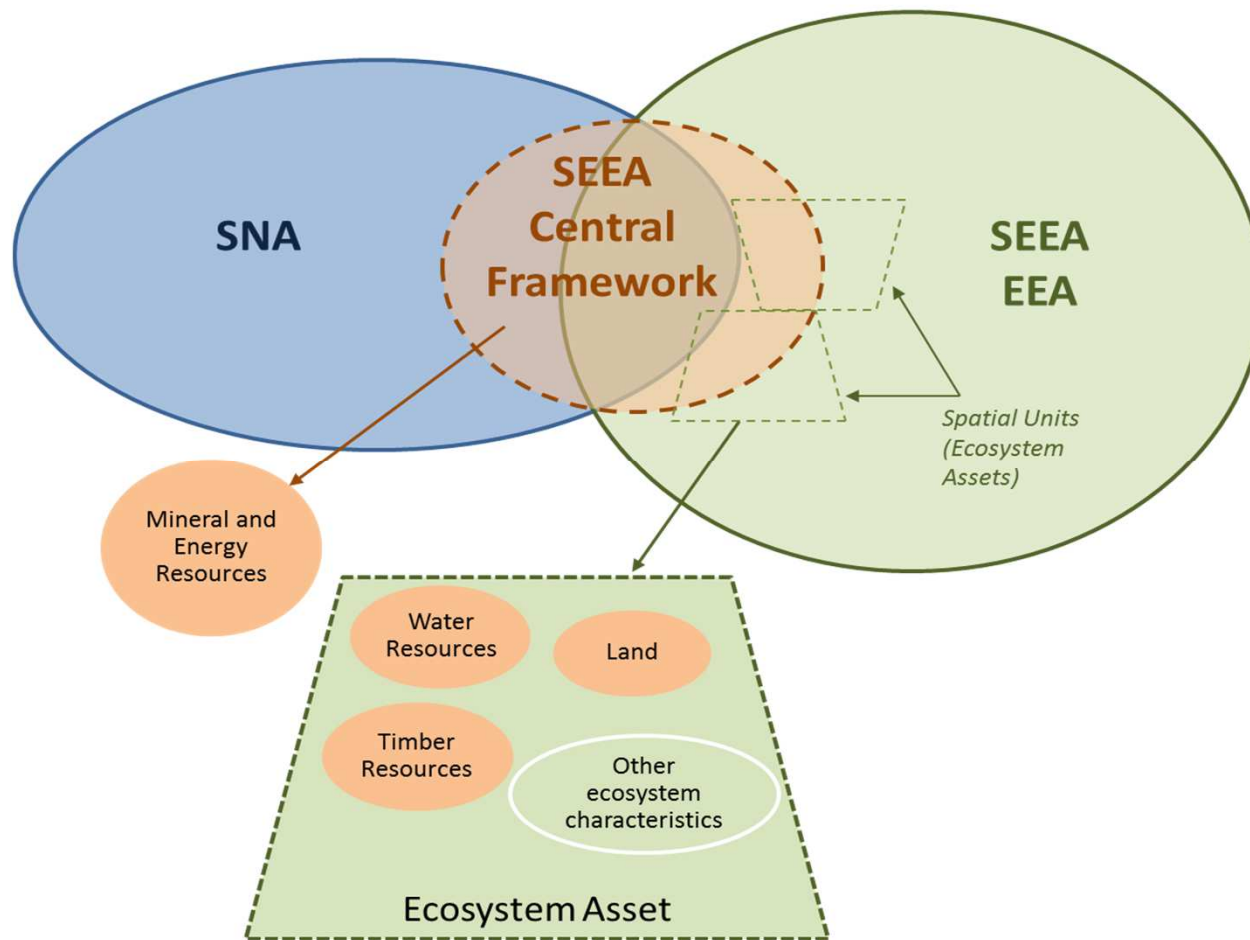
Ecosystem Assets  
(spatially based)

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

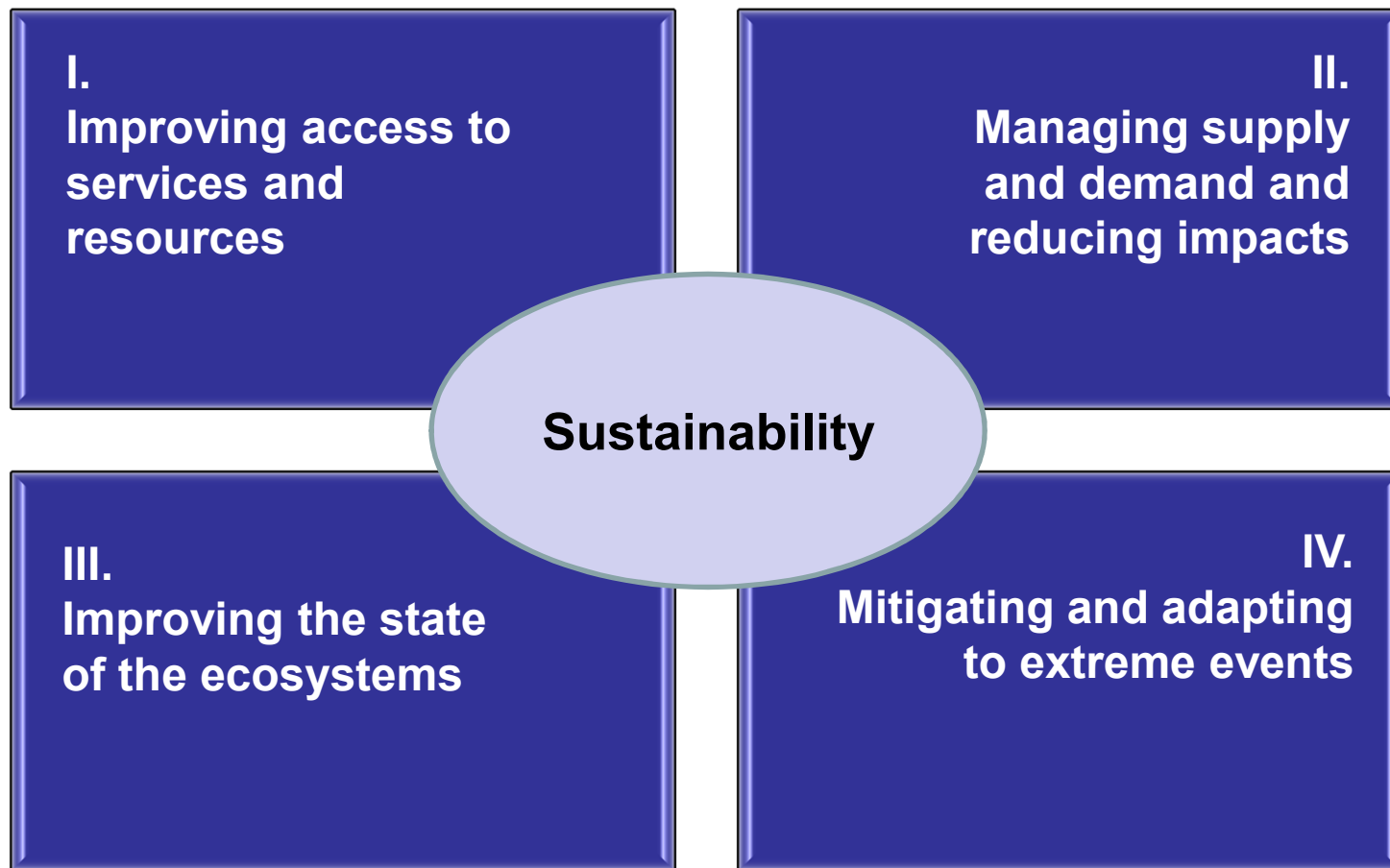


## SEEA experimental ecosystem approach

- 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



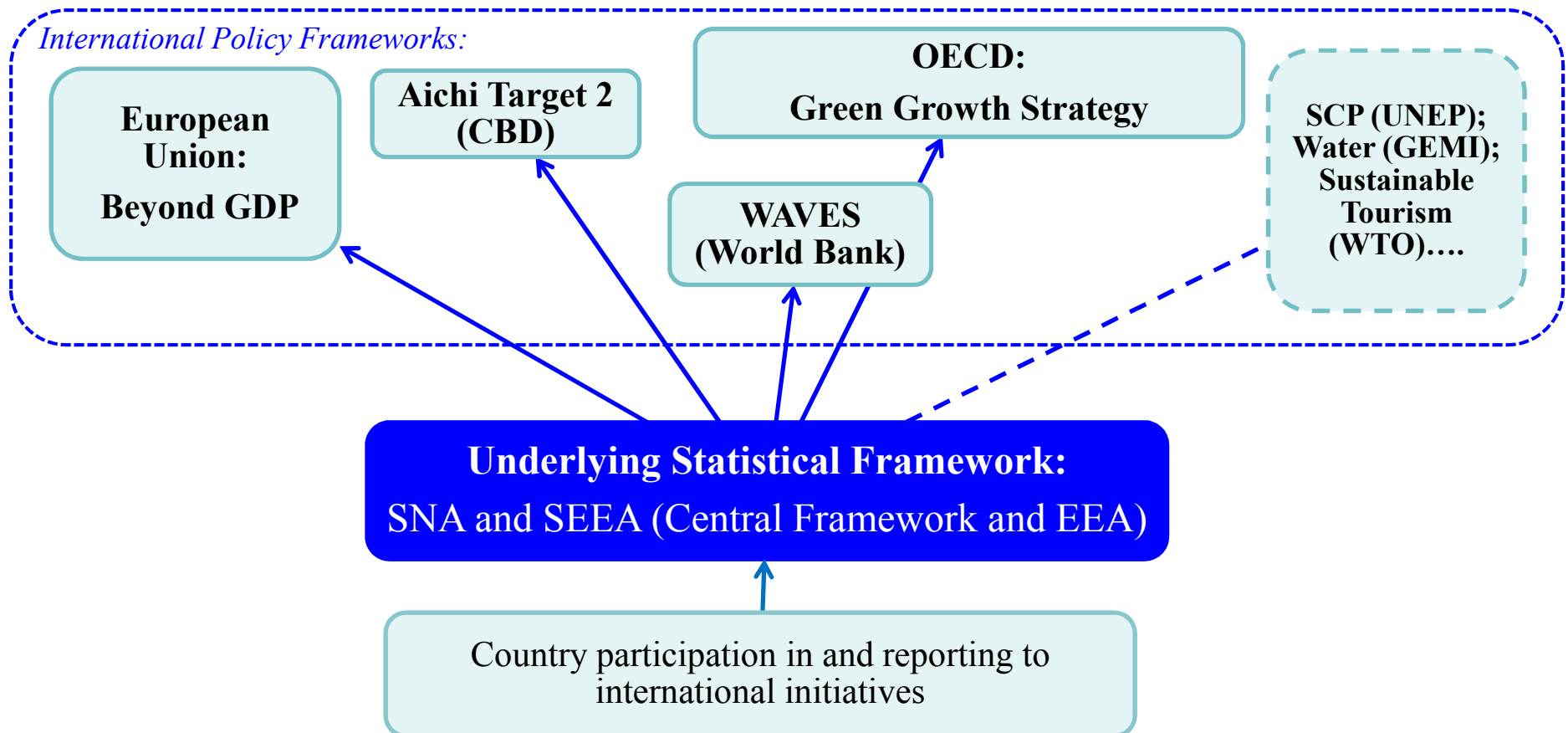




## 3. International perspective



# SEEA has been adopted by various 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?