

Integrating the economic and ecosystem approaches to the environment in the revised SEEA

Alessandra Alfieri

United Nations Statistics Division

Outline

- Economic and ecosystem approaches
- Can the revised SEEA present both approaches?
 - Volume 1, the standard economic approach
 - Volume 2, best practices the ecosystem approach

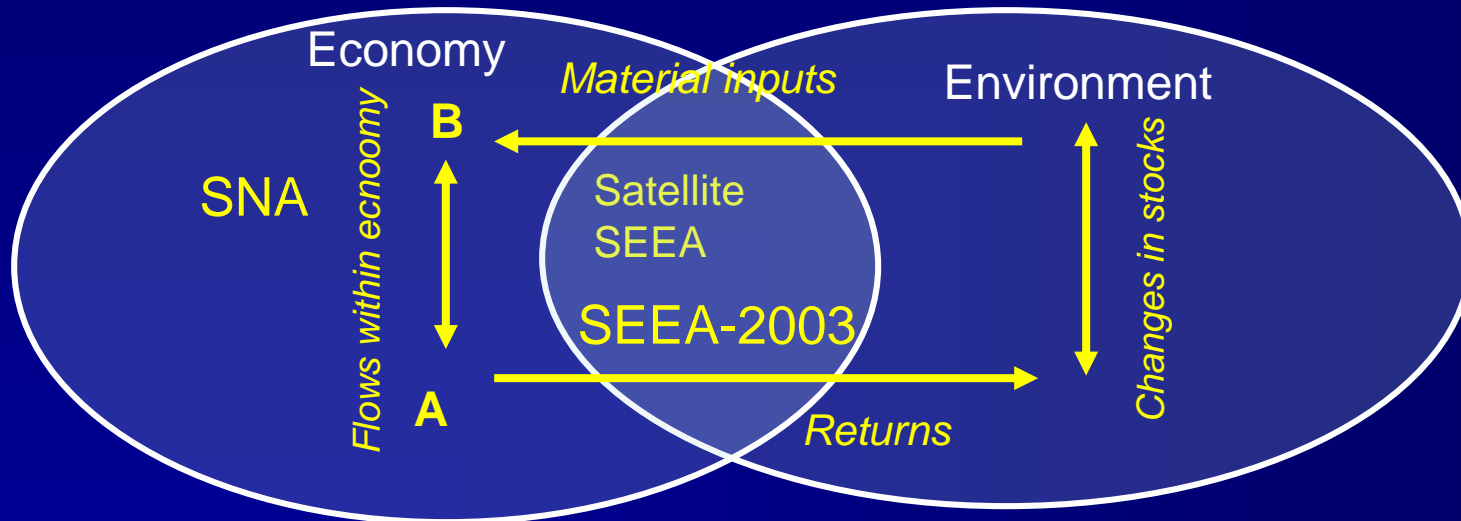
The SEEA-2003

- The SEEA-2003 is a multipurpose system to organize information. It uses a system approach of stocks and flows
- The SEEA-2003 has been perceived as measuring:
 - The interactions between the economy and the environment
 - e.g the flow accounts
 -but the SEEA-2003 does more. It also measures
 - The interactions within the environment/ecosystems (natural processes)
 - e.g. changes in stocks due to human activity and natural causes
 - The state of the environment, including quality
 - e.g. asset accounts – land use/land cover accounts, water asset accounts, forest accounts

The economic approach to the environment

Data Producers

NSOs, Environment agencies and others



e.g. Finance Ministry

Environment agencies/scientists

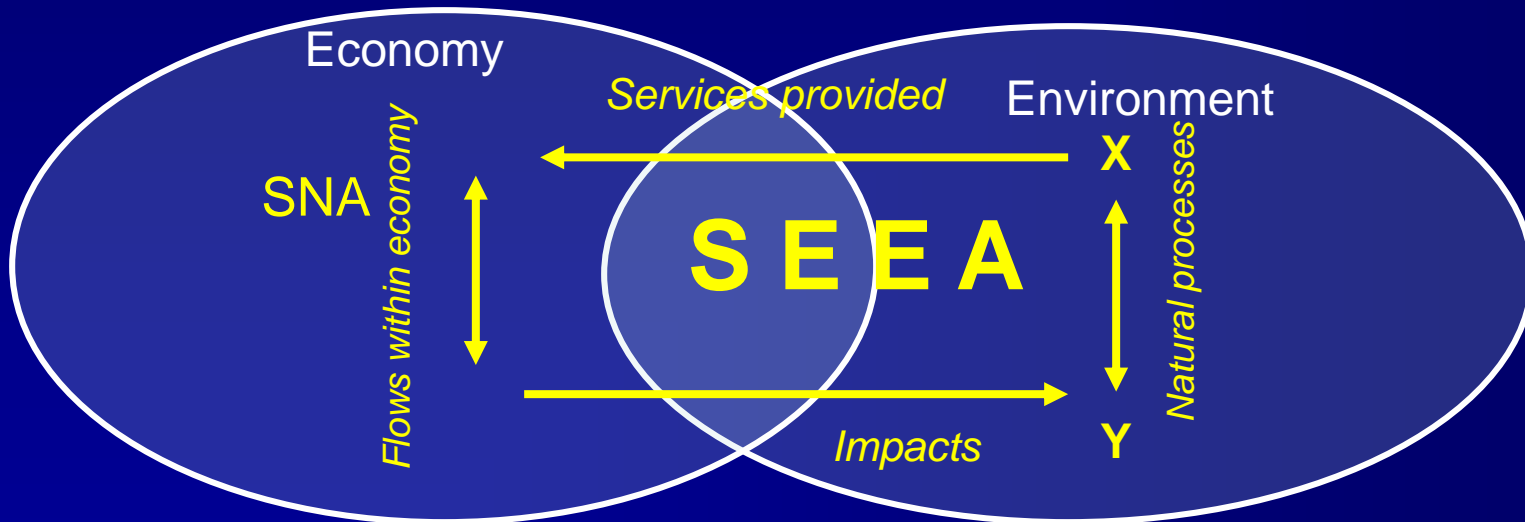
Data users

A and B are establishments/enterprises and households

The ecosystem approach to the environment

Data Producers

NSOs, Environment agencies and others



e.g. Finance Ministry

Environment agencies/scientists

Data users

X and Y are land cover units

Bringing economic and ecosystem approaches together in the revised SEEA

- Objectives
- Terminology
- Classifications
- Statistical units
- Spatial and temporal disaggregation
- Data producers and users

Objectives

Economic approach

- Measure the interaction between the economy and the environment

Ecosystem approach

- Monitor the quality and health of the environment in its capacity to provide services to humanity

Both objectives are represented in the SEEA and should be clearly stated.

Terminology

Economic approach

- Material inputs
- Products
- Residuals

Ecosystem approach

- Provisioning services
- Regulatory services
- Cultural services
- Supporting services

The SEEA should be able to bridge between the various terminology used as it did with hydrological terms and definitions in SEEA-Water and IRWS

Classifications

Economic approach

- ISIC
- CPC
- Classification of physical flows
- CEPA/CRUMA

Ecosystem approach

- Classification of ecosystem services
 - Provisioning services
 - Regulatory services
 - Cultural services
 - Supporting services

Some of these services are already included in the classification of physical flows or other classifications. Can this be done more systematically?

Statistical units

Economic approach

- Establishments/
- Enterprises
- Households
- Government

Ecosystem approach

- Land cover units
 - Water bodies
 - Savannah
 - Forest

Economic and statistical units in the environment should be cross-classified.

Spatial and temporal disaggregation

Economic approach

- Nation
- Administrative region
- Yearly (quarterly)

Ecosystem approach

- Land cover units
 - River basins
 - Homogeneous ecosystems
- Frequent data (monthly, weekly daily)

Data at different spatial and temporal references should be collected using definitions concepts and classification that will allow its aggregation.
Example of SEEA-Water for river basins

Data production and use

Economic approach

- Surveys/census
- Administrative data
- Eco-efficiency indicators
- Budget allocation
- I-O modeling
- Researchers and economists
- Finance and treasury ministries

Ecosystem approach

- Monitoring systems
- Tipping points of the ecosystems
- Health of ecosystem
- Scientists
- Resource managers

Increasingly need information on both the economic aspects of the environment to do policies (see valuation of ecosystem services and damages).

Way forward

- Revised SEEA to cover both economic and ecosystem approach to the environment
 - Volume 1, the standard – Economic approach
 - Covers all the issue being addressed in the SEEA revision process
 - Volume 2, best practices – Ecosystem approach
 - Covers ecosystem classifications, ecosystem accounts, valuation of ecosystem services and degradation
 - Chapter on the framework (Chapter 2) should embrace both approaches.