



Overview of the SEEA

Alessandra Alfieri

United Nations Statistics Division

National Seminar on Implementation of the SEEA Central
Framework and Supporting Statistics

11 December 2013

Kampala, Uganda



Policy settings

- Post-2015 UN development agenda/SDGs
- Green Growth/Green Economy
- Broader measures of progress/Beyond GDP
- Natural Capital Accounting/ WAVES
- Aichi targets (e.g. Target 2)
- Poverty and environment
- TEEB





Para.38 of the Rio+20 report



“We recognize the need for **broader measures of progress to complement GDP** in order to better inform policy decisions, and in this regard, we request the UN Statistical Commission in consultation with relevant UN System entities and other relevant organizations to launch a programme of work in this area building on existing initiatives.”



Challenges ahead for our operations

- Fundamental rethink and transformational change in mainstreaming sustainable development
 - How we **set the statistical agenda**, how we **keep the agenda under review** and how we **promote the statistical agenda and the authority of official statistics**
 - How we engage within and between the national, regional and international statistical system with a **bottom-up approach based on national priorities**
 - How we **integrate policy and statistics** in our operations
 - How we **integrate economic, social and environmental dimensions** in our operations





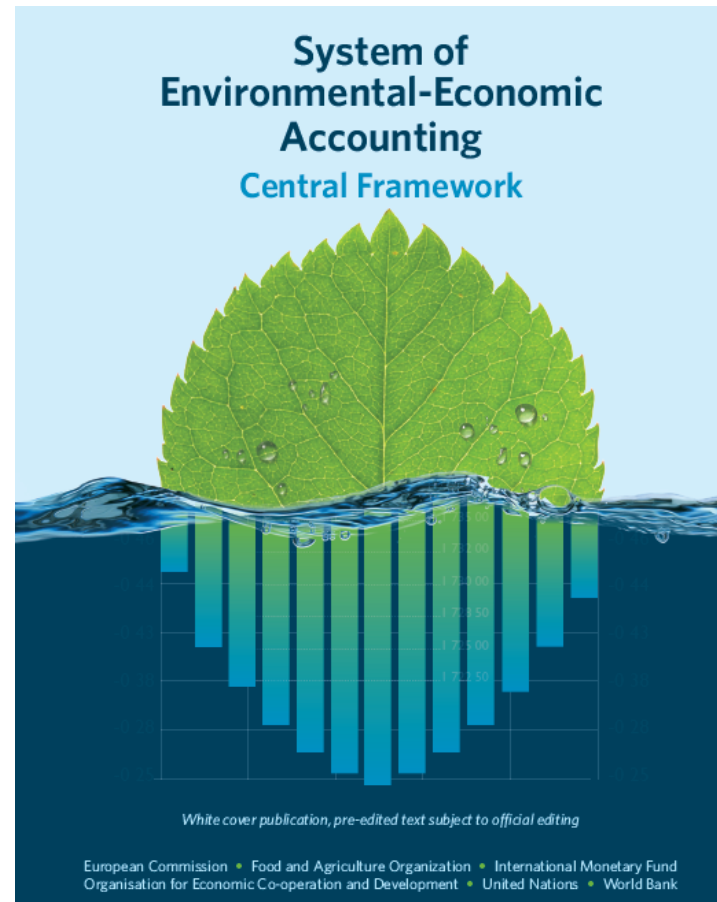
Implications for statistical community

- A need to bring statistical decisions into the political process of defining development goals, targets and indicators
- An early and adequate engagement of the statistical community is vital
- A leadership role for the national statistical offices in the national statistical system and engage with the national stakeholders
- A need to strengthen the capacity of national statistical systems to compile and report development indicators through balanced and resourced national statistical systems based on national priorities



Recent advances - SEEA

- Internationally agreed statistical framework to measure environment and its interactions with economy
- Adopted as international statistical standard by UN Statistical Commission in 2012
- Developed through inter-governmental process
- Published by UN, EU, FAO, IMF, OECD, WB





The Suite of SEEAs

- 1993** Handbook – interim publication
- 2003** Updated SEEA handbook – manual of best practices
- 2006** UNSC decided to elevate SEEA to an international standard

- 2012** **SEEA – The Central Framework (international standard)**
- 2013** **SEEA – Experimental Ecosystem Accounting**
- 2013** **SEEA – Applications and Extensions**

Subsystems:

- SEEA – Water (adopted in 2007)
- SEEA – Energy
- SEEA – Agriculture



SEEA: A Statistical Standard

- Countries are “encouraged to implement the standard”
- International organizations have obligations to assist countries in implementation
- Implementation strategy adopted by Statistical Commission in March 2013
- Data reporting mechanism will be established



Information is vital ...and it needs to be integrated

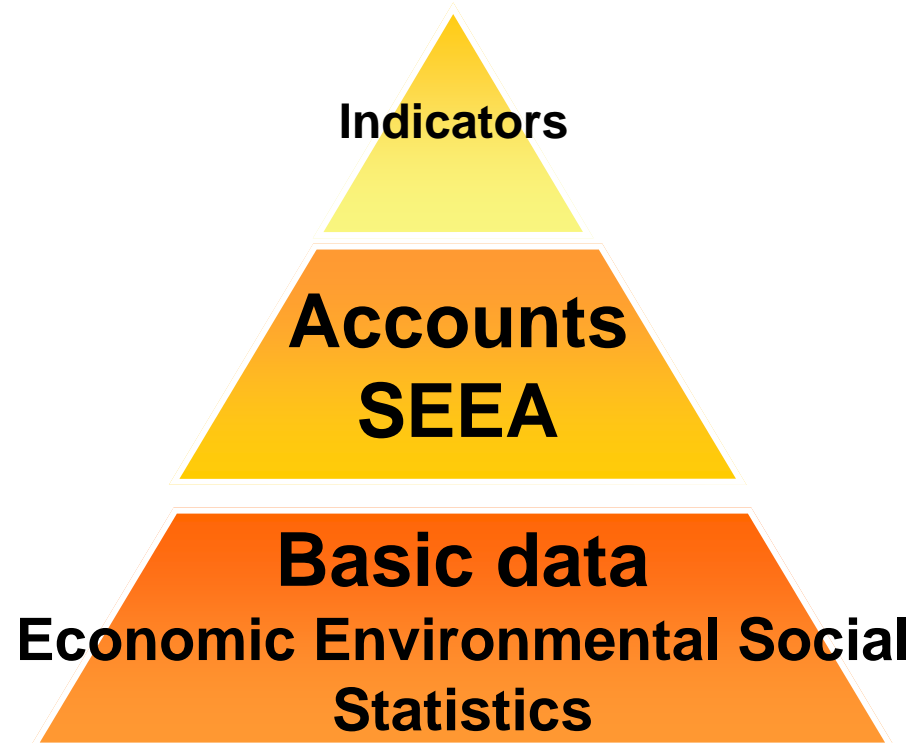
- The economy impacts on the environment and the environment impacts on the economy
- To understand these linkages we need to integrate environmental and economic information
- This is the explicit purpose of the SEEA





Integrated 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



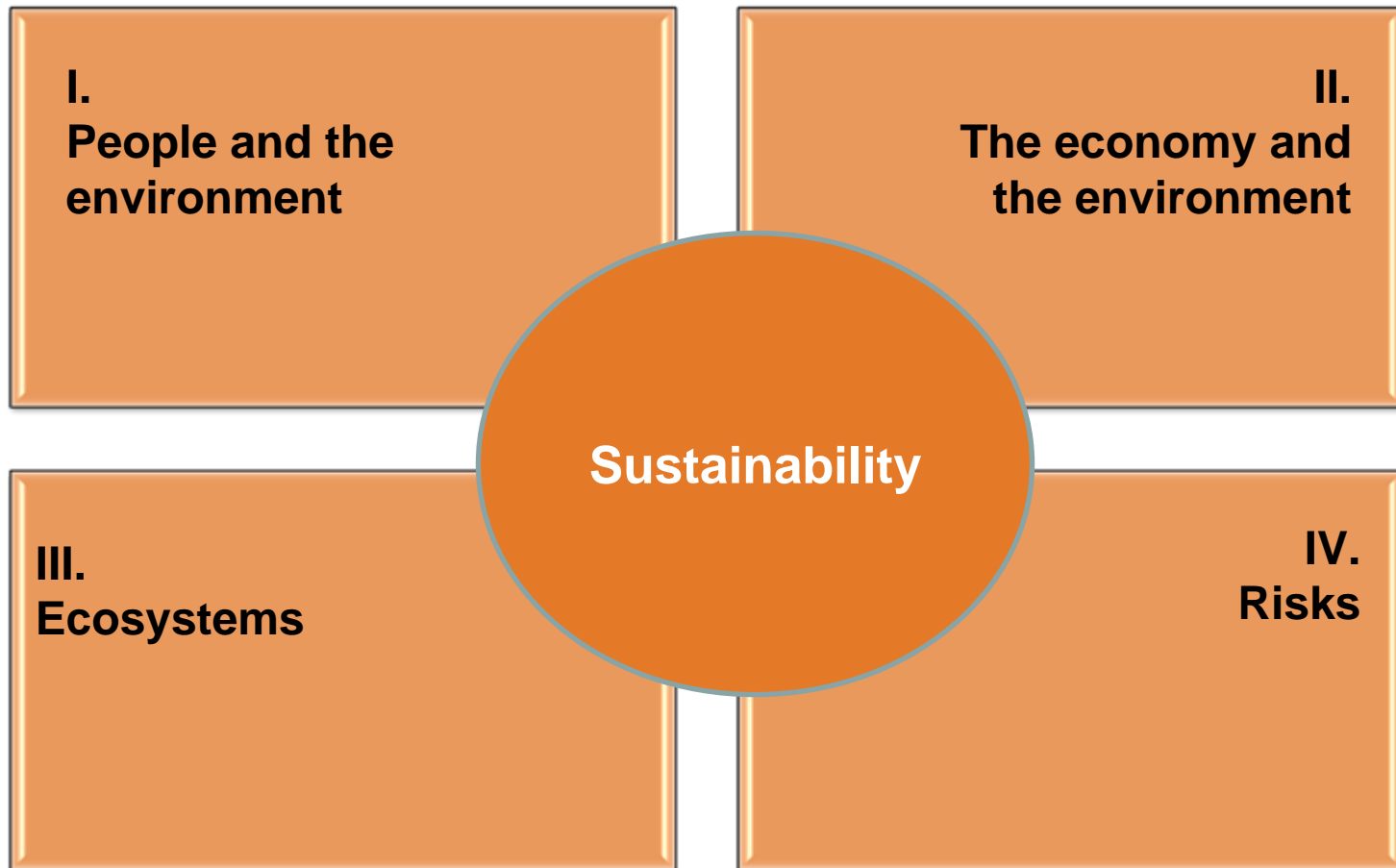


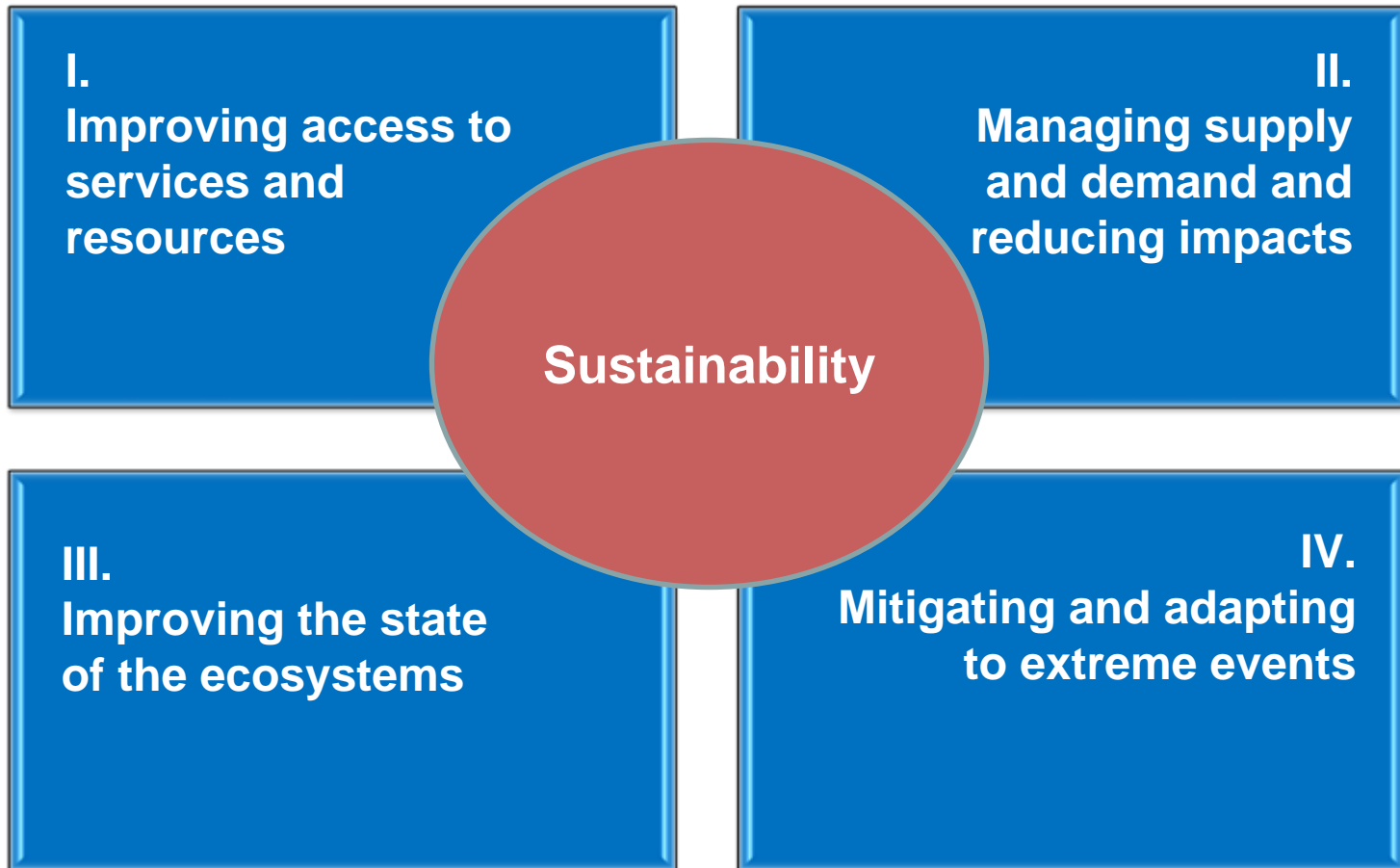
Linking environmental and socio-economic data is essential for policymakers

- Enables analysis of the impact of economic policies on the environment and vice versa
- Provides a quantitative basis for policy design
- Identifies the socio-economic drivers, pressures, impacts and responses affecting the environment
- Supports greater precision for environmental regulations and resource management strategies
- Provides indicators that express the relationships between the environment and the economy
- Support relevant perspectives on the dimensions of economic development, environmental sustainability and social equity



The SEEA Policy Quadrants







Quadrant I: Improving access

I. Improving access to services and resources

Key information in this quadrant (household sector related):

- Costs associated with the provision of services to households
- Investments in network infrastructure
- Employment and compensation in household production units
- Household consumption and disposable income
- Poverty and inequality



Quadrant II: The economy and the environment

II. Managing supply and demand

Key information in this quadrant:

- Efficiency of production
 - Decoupling
 - Multifactor productivity
- Efficiency of consumption
 - Embedded emissions
 - Footprint indicators
- Costs of production and payments by users (e.g. fees, taxes, rents, permits, etc.)
- Employment and compensation
- Financing (who pays for investments and current costs)
- Depletion estimates
- Solid waste and emissions
- Environmental protection and resource management expenditures



Quadrant III: Ecosystems

III. Improving the state of the ecosystems

Key information in this quadrant:

- Ecosystem extent
- Ecosystem conditions
 - Water cycle
 - Carbon cycle
 - Nutrient cycle
 - Primary productivity
- Biodiversity
- Regulatory services provided by ecosystems



Quadrant IV: Extreme Events

**IV. Mitigating and
adapting to
extreme events**

Key information in this quadrant:

- Natural disasters
- Investments for mitigation
- Investments for adaptation

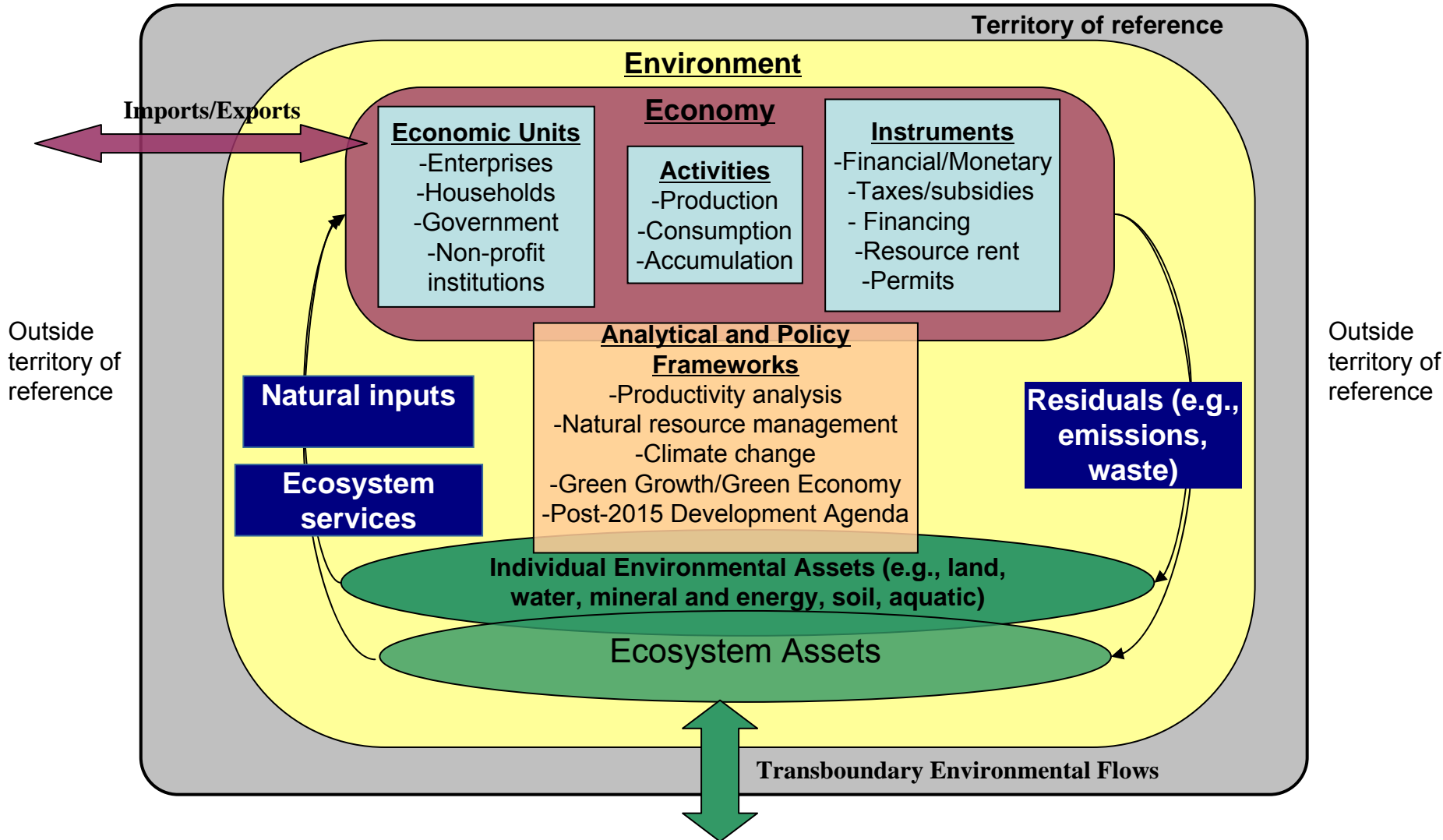


The SEEA Central Framework Accounts

- 1. Flow accounts:** supply and use tables for products, natural inputs and residuals (e.g. waste, wastewater) generated by economic activities.
 - physical (e.g. m² of water) and/or monetary values (e.g. permits to access water, cost of wastewater treatment, etc.)
- 2. Stock accounts** for environmental assets: natural resources and land
 - physical (e.g. fish stocks and changes in stocks) and/or monetary values (e.g. value of natural capital, depletion)
- 3. Activity / purpose accounts** that explicitly identify environmental transactions already existing in the SNA.
 - e.g. 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



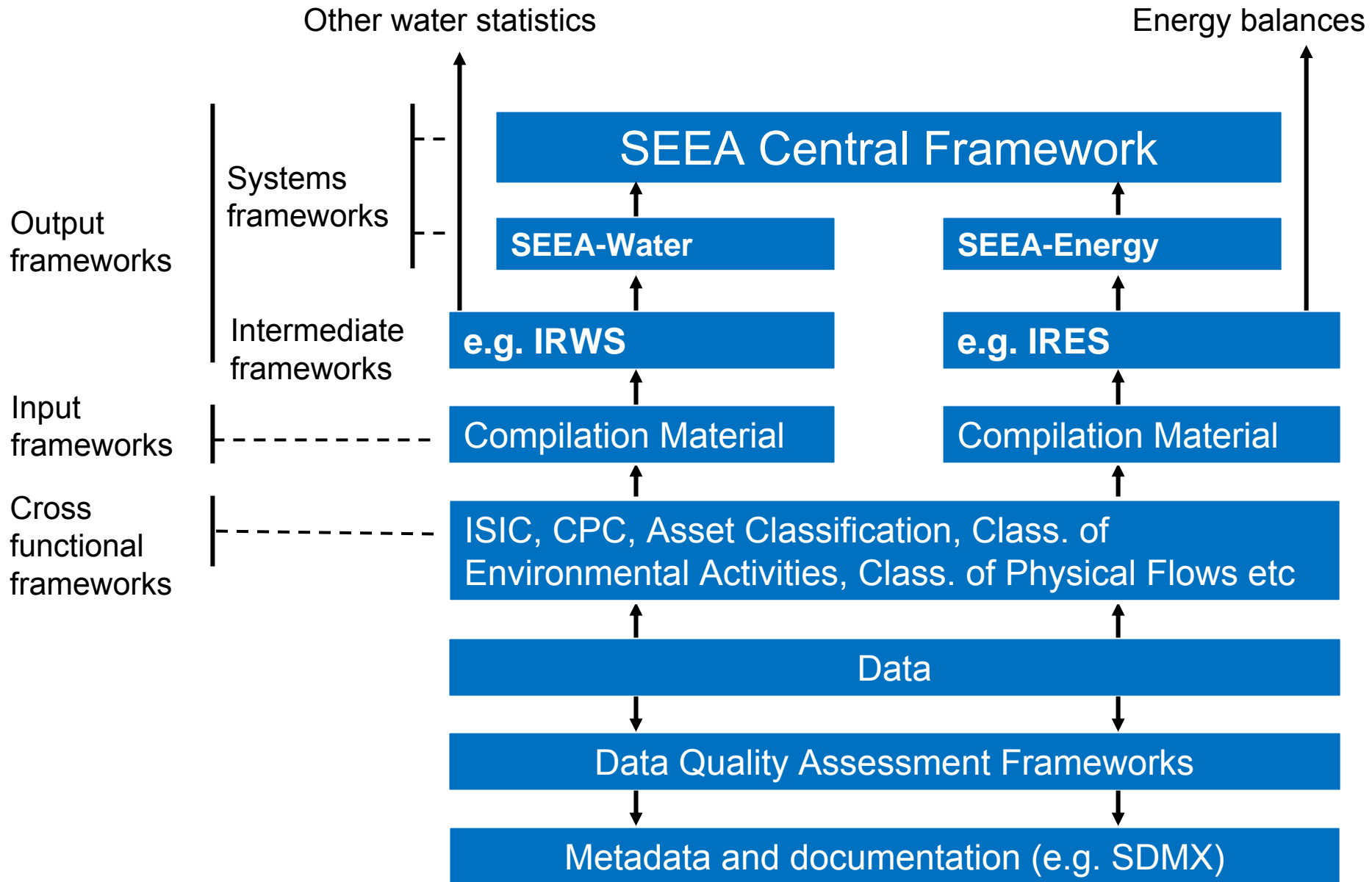
SEEA Conceptual Framework





System of Environmental-Economic Accounting

United Nations Statistics Division



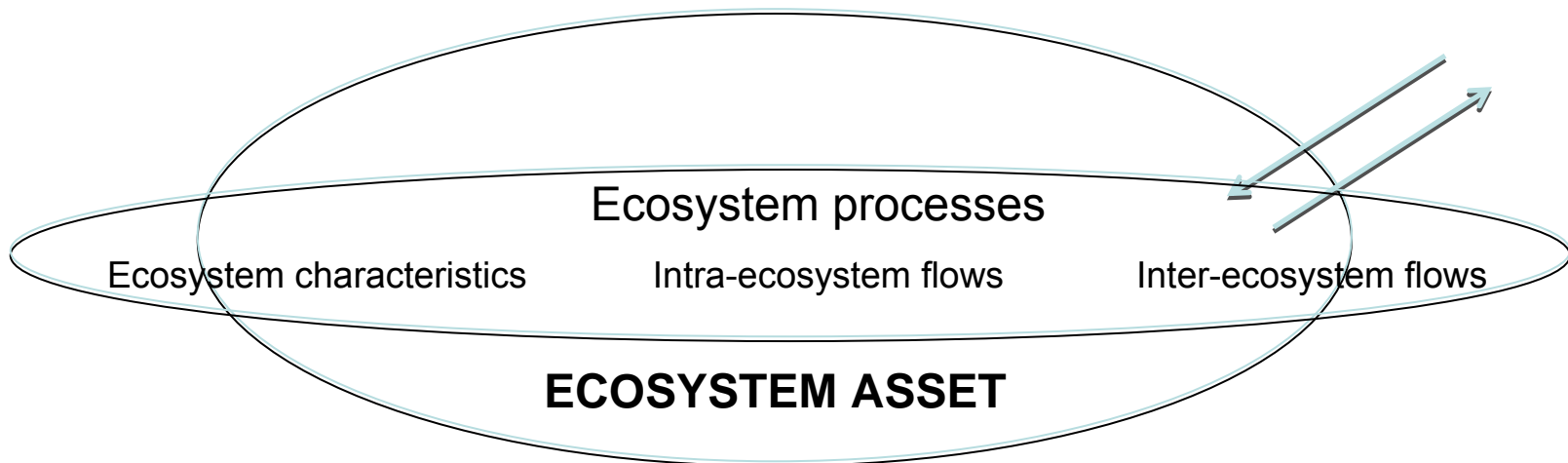


SEEA Experimental Ecosystem Accounting

- Focus on monitoring environmental impact rather than environmental pressures
- Determine appropriate areas – ecosystem assets
- Find indicators of condition (e.g. carbon balances, water flows, biodiversity) and assess change over time
- Find indicators of ecosystem services
 - Provisioning, regulating, cultural
- Examine relationship between flows of ecosystem services and changing condition (essentially analysis in volume terms)

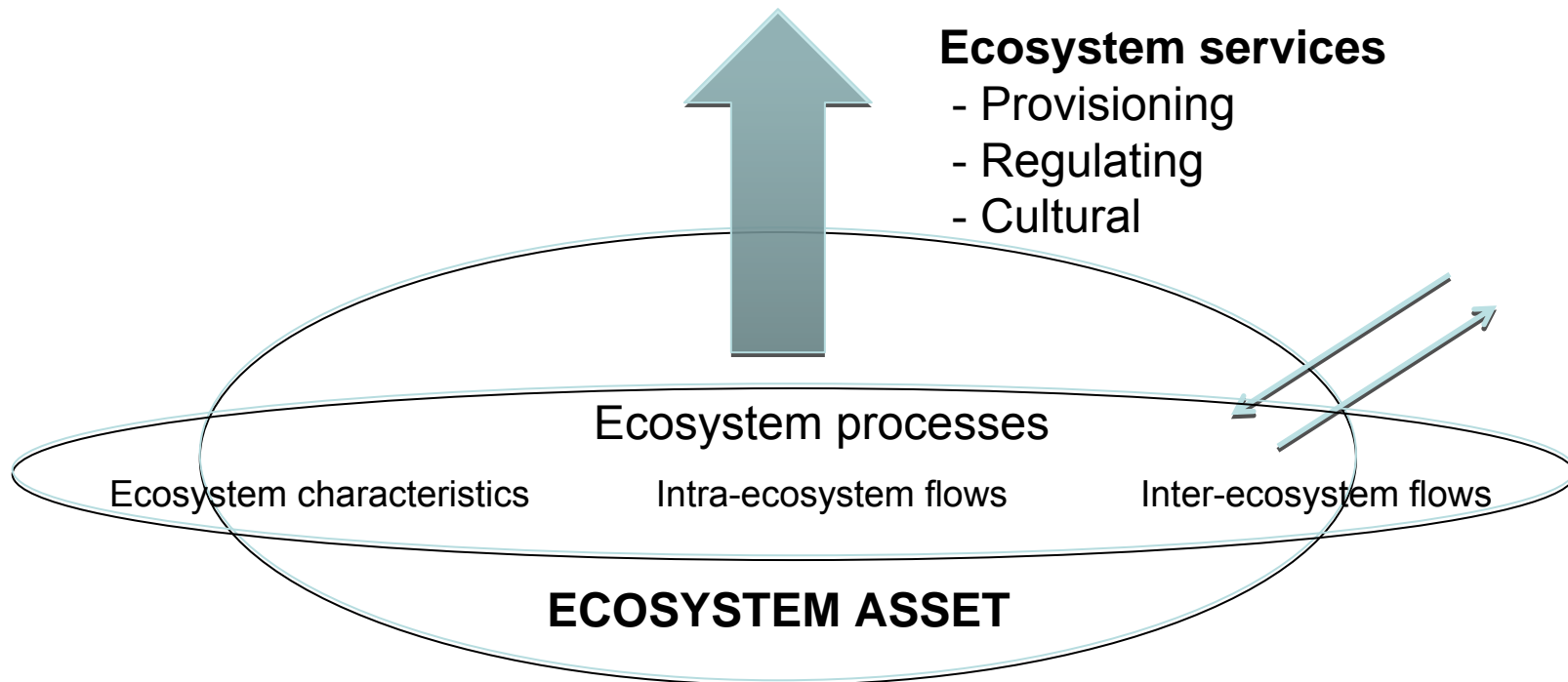


CORE SEEA ECOSYSTEM ACCOUNTING MODEL



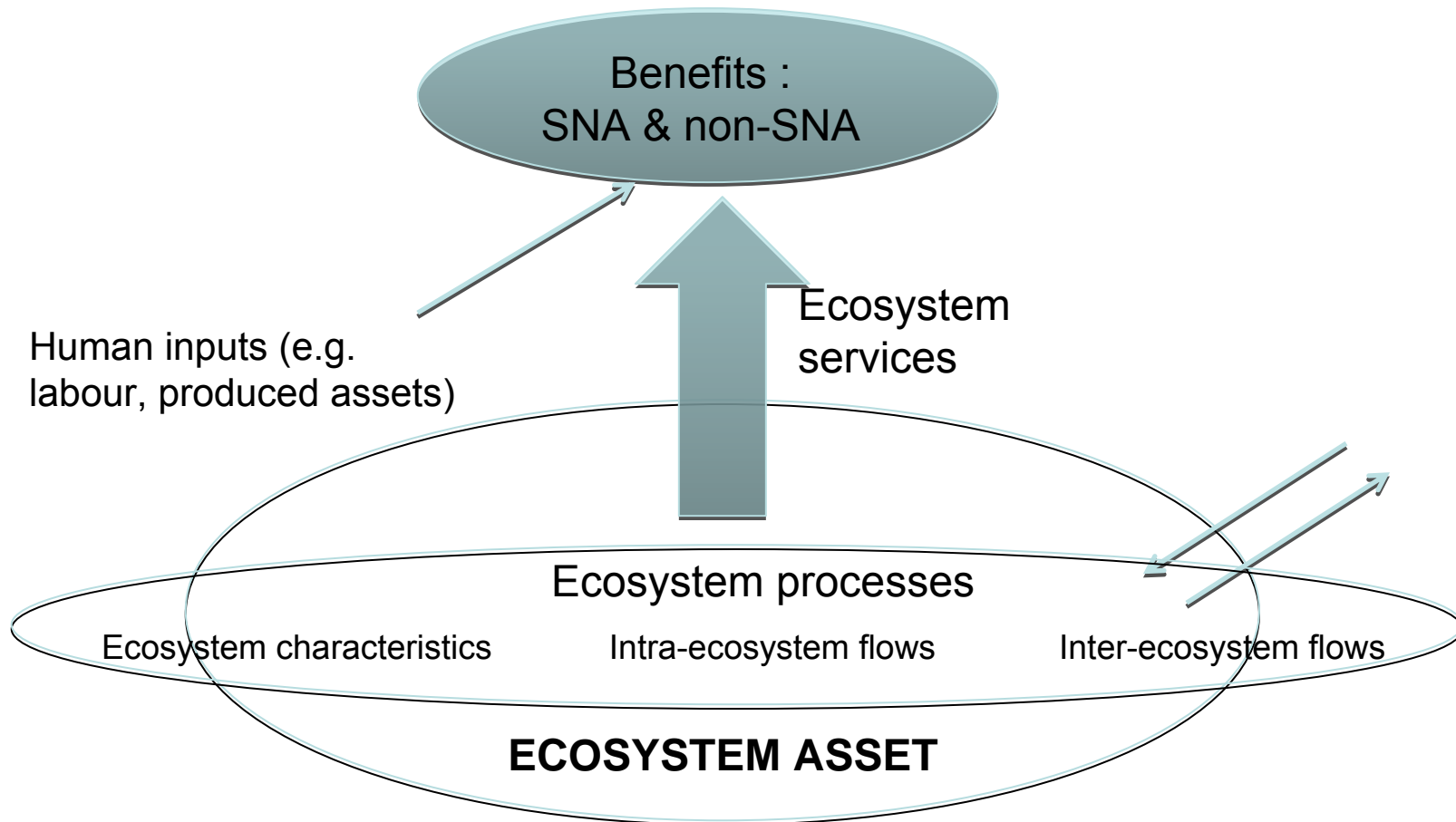


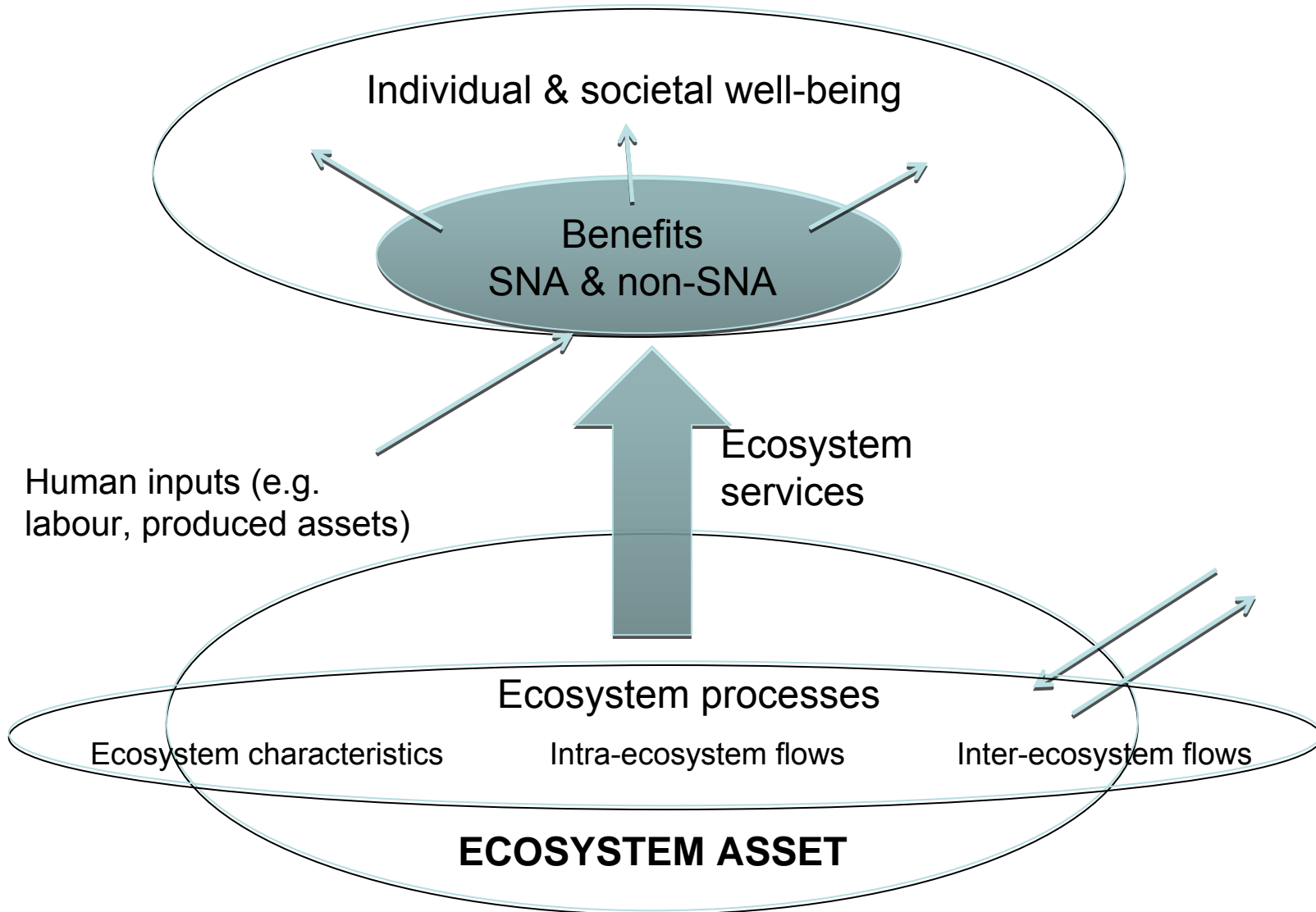
CORE SEEA ECOSYSTEM ACCOUNTING MODEL





CORE SEEA ECOSYSTEM ACCOUNTING MODEL







Ecosystem services

Ecosystem services are services that benefit humanity, and can be of direct or indirect use. Broad examples include:

- Provisioning services (nutrition, medicine, fur, uncultivated food)
- Regulating services (climate regulation, flood control, water filtration, air filtration, de-pollution)
- Cultural services (science, spiritual, ceremonial, recreation, aesthetic)





SEEA Experimental Ecosystem Accounting

- UN Statistical Commission
 - Encouraged countries to test framework
 - Requested creation of mechanism to advance research agenda
 - 4 research streams:
 - Ecosystem conditions and services
 - Geospatial
 - Valuation
 - Policy applications



Reference Material

Briefing notes:

Briefing note on SEEA Central Framework:

<http://unstats.un.org/unsd/envaccounting/Brochure.pdf>

Briefing note on SEEA Experimental Ecosystem Accounting:

http://unstats.un.org/unsd/envaccounting/workshops/int_seminar/note.pdf

Briefing note on SEEA Water and International Recommendations for Water Statistics (IRWS)

http://unstats.un.org/unsd/envaccounting/WWAP_UNSD_WaterMF.pdf

Methodological publications:

SEEA Central Framework:

http://unstats.un.org/unsd/envaccounting/White_cover.pdf

SEEA Experimental Ecosystem Accounting:

<http://unstats.un.org/unsd/statcom/doc13/BG-SEEA-Ecosystem.pdf>

SEEA Applications and Extensions:

<http://unstats.un.org/unsd/statcom/doc13/BG-SEEA-AE.pdf>

Library – searchable library of publications (e.g. country case studies, methodological publications, etc.)

<http://unstats.un.org/unsd/envaccounting/ceea/archive/>

Research agenda accompanying SEEA-Experimental Ecosystem Accounting

<http://unstats.un.org/unsd/statcom/doc13/BG-SEEA-ResearchAgenda.pdf>

Contact E-mail: seea@un.org