



Overview of the SEEA and its subsystem

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Beyond the WASH Agenda:
Strengthening capacities for Water Resources Management
in the Post-2015 Development Agenda

New York, 25-27 November 2013



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
- Vantage
- TEEB
- IWRM
- WASH





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



System of Environmental-Economic Accounting

United Nations Statistics Division

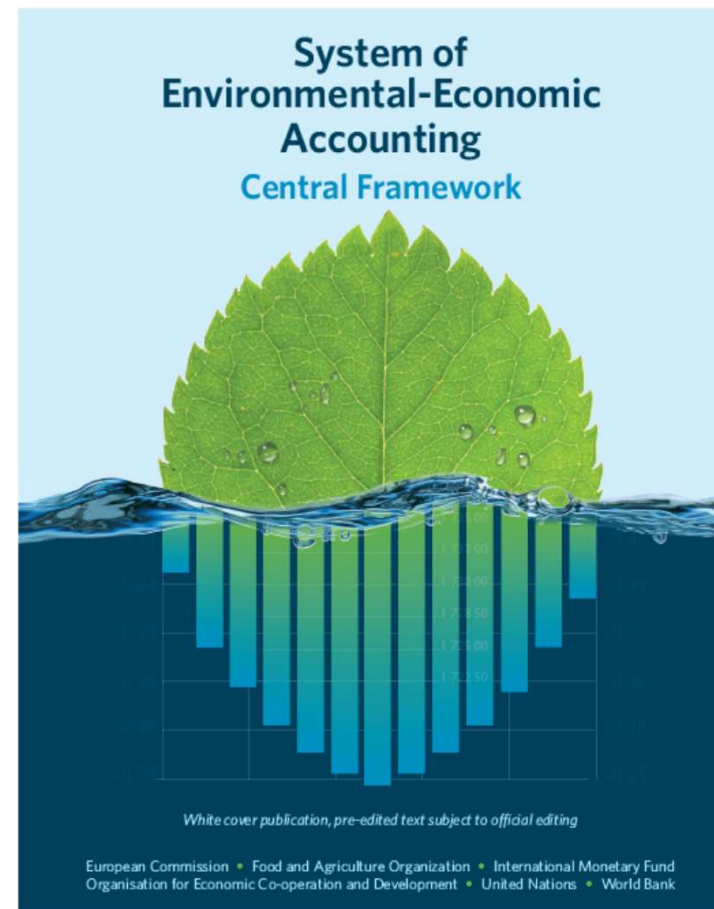
Statisticians, politicians and policymakers, business sector, scientific/academic community and general public must join hands!





Statistical response - 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



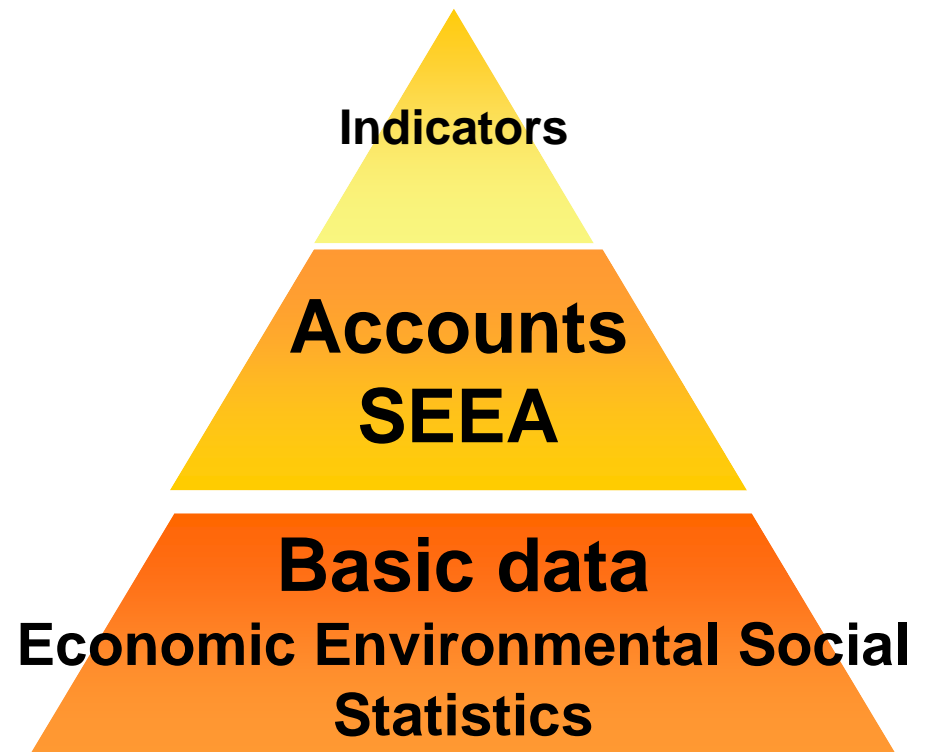
SEEA: A Statistical Standard

- 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



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





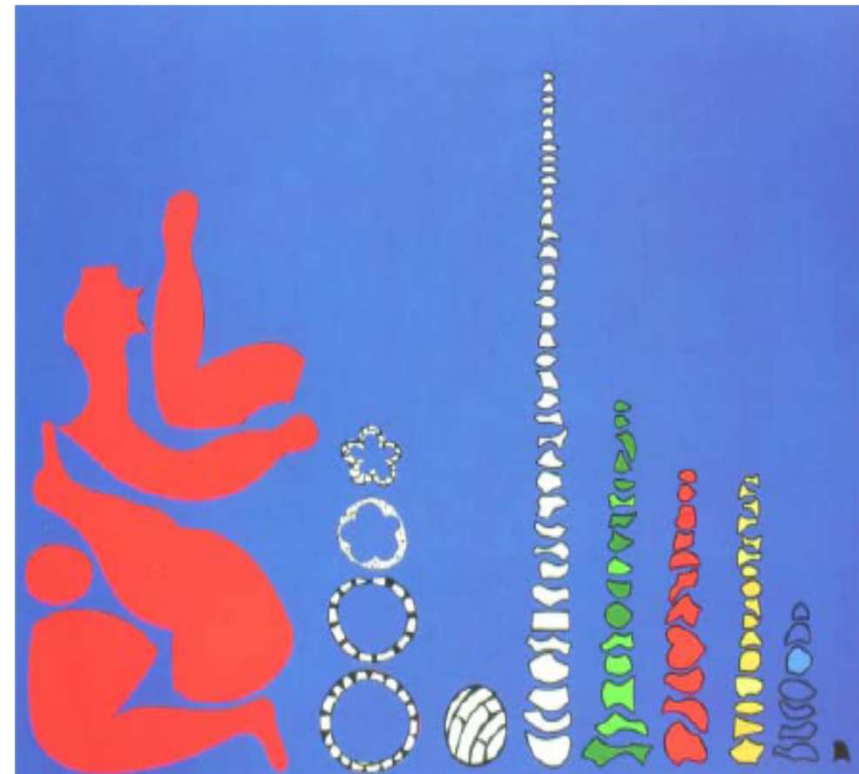
Linking environmental and socio-economic data is essential for policymakers

- 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



Problem: Information silos

- Data developed to answer one particular question or problem
- Difficult to figure out if all information is included
- Not always easy to see the whole picture, or how it relates to other things





Solution: Integrated information

- Holistic picture
- Consistency of information and identification of data gaps
- Interconnections between economy, environment and society



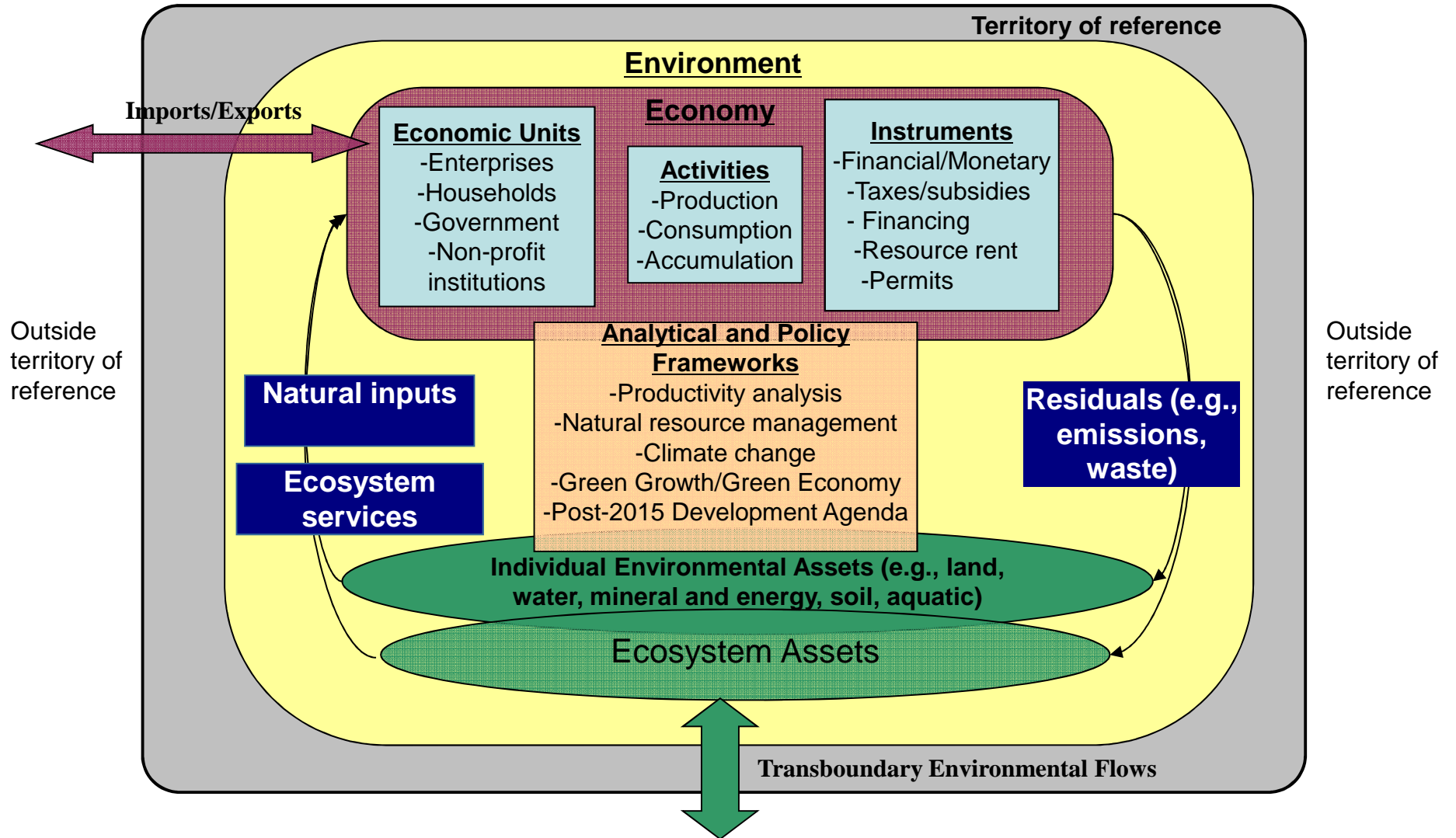


The SEEA Central Framework Accounts

- 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



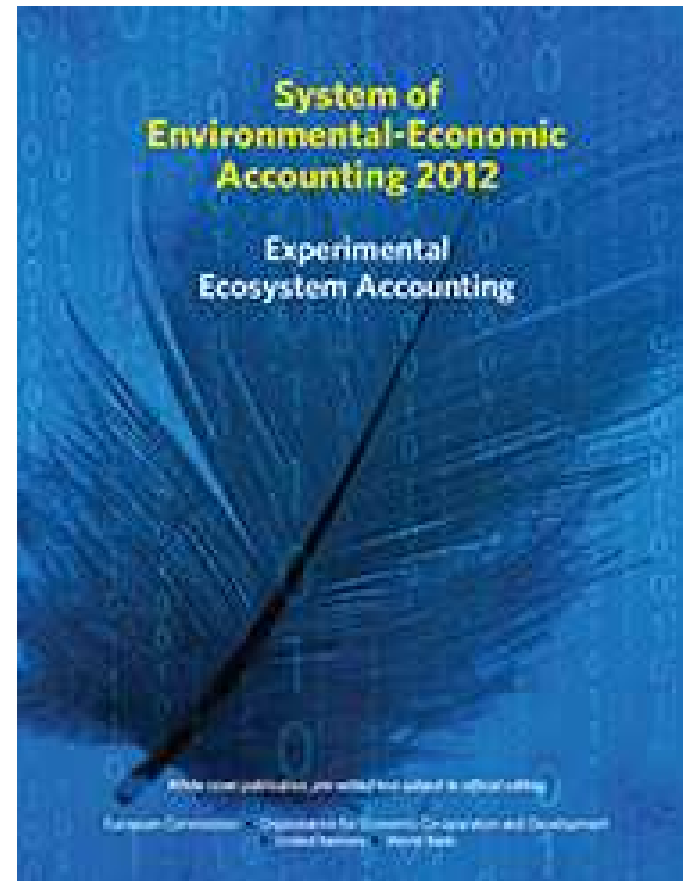
SEEA Conceptual Framework





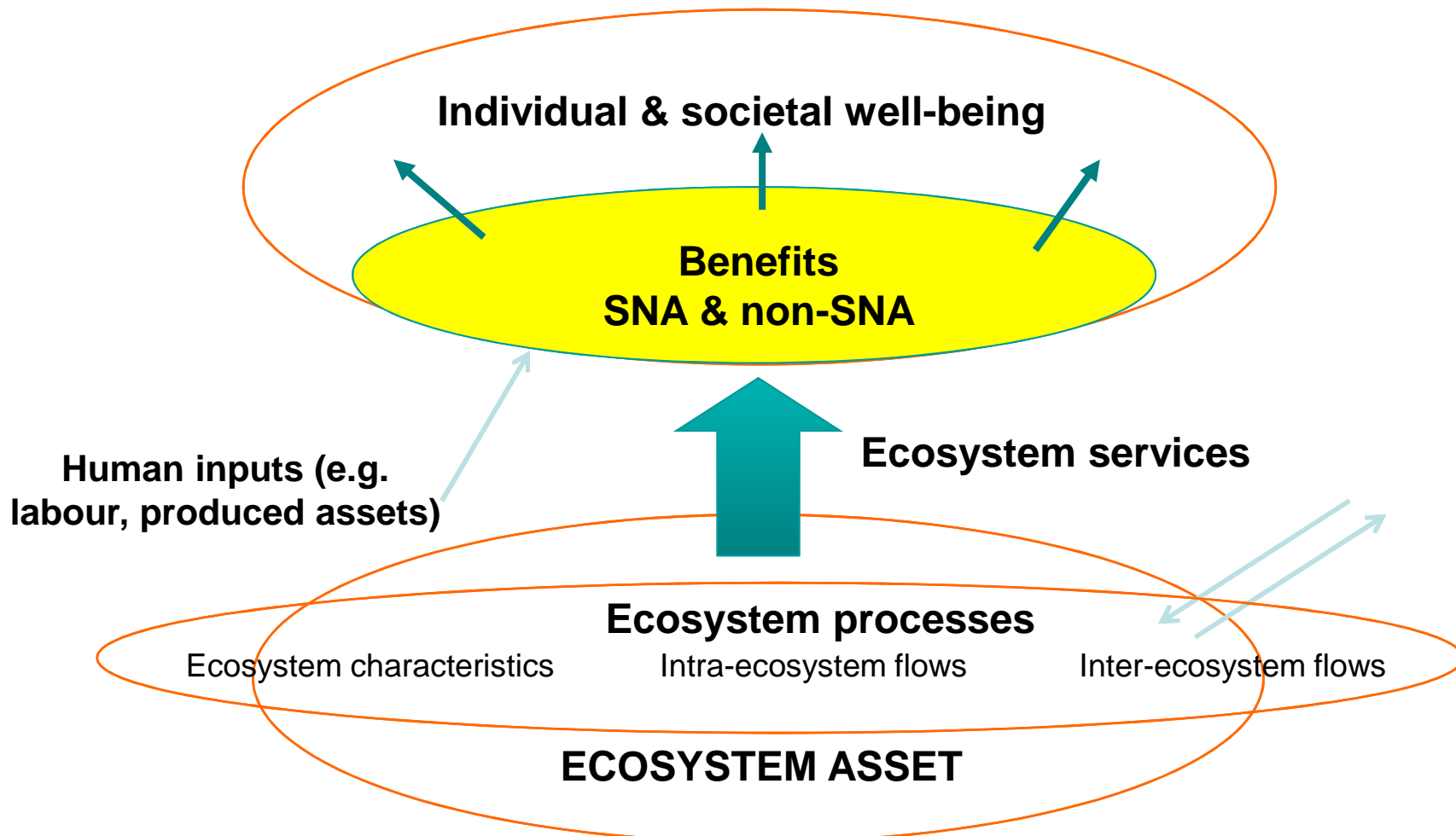
SEEA Experimental Ecosystem Accounting

- Complements SEEA Central Framework
- Integrated statistical framework for accounting for ecosystem assets and associated ecosystem services
- Important first step in development of statistical framework for ecosystem accounting





Linking ecosystem assets and well-being through ecosystem services





Key aspects of the framework

Statistical units

Classification of ecosystem services

- Provisioning (water, materials, energy and other provisioning services)
- Regulating services (remediation and regulation of biophysical environment, flow regulation, etc.)
- Cultural services (physical or experiential use of ecosystems)

Ecosystem assets

- Ecosystem extent
- Ecosystem condition (measured through a range of indicators of characteristics)
- Expected ecosystem service flows

Degradation and enhancement



SEEA Experimental Ecosystem Accounting

- UN Statistical Commission
 - Encouraged countries to test framework
 - Endorsed the research agenda
 - Requested creation of mechanism to advance research agenda – multidisciplinary
 - 5 possible research streams:
 - Ecosystem conditions and services
 - Geospatial
 - Valuation
 - Policy applications
 - Communication



SEEA Applications and Extensions

- Companion document to the SEEA Central Framework to support the implementation
- Highlights potential application of SEEA data to answer policy and research questions
- Can be extended to integrate with data with other domains (such as household sector)
- Provides a bridge between compilers and analysts



Implementation strategy of SEEA Central Framework



Implementation strategy –SEEA CF

Endorsed by UNSC in 2013

Objectives:

- To assist countries in the adoption of the SEEA Central Framework as the measurement framework for environmental-economic accounts and supporting statistics, and
- To establish incrementally the technical capacity for regular reporting on a minimum set of environmental-economic accounts with the appropriate scope, detail and quality



Four phases

- First phase – establish national institutional arrangements
 - Second phase – self assessment using diagnostic tool
 - Third phase -- data quality assessment
 - Fourth phase – preparation of strategic development plan
-
- These phases would be supported by international activities



Considerations for SEEA implementation

- Strategic approach to the implementation
- Linking the implementation to policy demands
- Bottom-up approach
- Sub-regional approach
- Linked to the 2008 SNA
- Stages of implementation by 2020 based on national priorities
- Coordination



Implementation activities

- Technical assistance and training
- SEEA implementation guide, compilation manuals, diagnostic tools, technical notes, data quality assessment framework and training materials
- Core sets of SEEA tables for data collection and reporting
- Creation of partnerships at global, regional and national level, including cooperation with the policy and scientific communities
- Advocacy and communication



Core tables

- UN Statistical Commission requested the UN Committee of Experts on Environmental-Economic Accounting to develop core set of tables and accounts to support the SEEA implementation
- Build on existing initiatives consistent with SEEA and arrive on agreed core tables and accounts agreed internationally
 - Eurostat Regulation on air emissions accounts, economy-wide MFA and environmental expenditures as well as energy, environmental taxes and environmental goods and services sector (2nd phase)
 - OECD work of the newly established Task Force
 - Air emission accounts and natural resources
- Core tables will be the basis for international reporting



Core table 1 – water and economy

Core table 1 - Combined physical and monetary table

	Industries (by ISIC division)							Rest of the world	Taxes less subsidies on products, trade and transport margins	Actual final consumption		Total
	ISIC 01-03	ISIC 05-33, 41-43	ISIC 35	ISIC 36	ISIC 37	ISIC 38,39, 45-99	Total industry			Households	Government	
1. Supply of water products (Currency units)												
Natural water	L.1.1	L.1.1	L.1.1	L.1.1	L.1.1	L.1.1	L.1.1		M.1.1.1-N.1.1.1			L.1.1+M.1.1.1-N.1.1.1
Sewerage services	L.1.2	L.1.2	L.1.2	L.1.2	L.1.2	L.1.2	L.1.2		M.1.1.2-N.1.1.2			L.1.2+M.1.1.2-N.1.1.2
2. Total supply of products												
3. Intermediate consumption and final use (Currency units)												
Natural water	L.4	L.4	L.4	L.4	L.4	L.4	L.4			L.4	L.4	L.4
Sewerage services	L.5	L.5	L.5	L.5	L.5	L.5	L.5			L.5	L.5	L.5
Other products												
4. Gross value added (Currency units)												
5. Employment												
6. Use of water (Millions m³)												
Total Abstraction	E+G	E+G	E+G	E+G	E+G	E+G	E+G	F.2+F.4				E+G+F.2+F.4
Use of water received from other economic units	E	E	E	E	E	E	E					E
Distributed water	G	G	G	G	G	G	G	F.2+F.4		G	G	G+F.2+F.4
Received wastewater	G.1+G.2	G.1+G.2	G.1+G.2	G.1+G.2	G.1+G.2	G.1+G.2	G.1+G.2	F.2		G.1+G.2	G.1+G.2	G.1+G.2+F.2
Supply of water (Millions m ³)	G.3+G.4	G.3+G.4	G.3+G.4	G.3+G.4	G.3+G.4	G.3+G.4	G.3+G.4	F.4				G.3+G.4+F.4
Supply of water to other economic units	F+H	F+H	F+H	F+H	F+H	F+H	F+H	G.2+G.4				F+H+G.2+G.4
Distributed water/water for own use	F	F	F	F	F	F	F	F				F+G.2+G.4
Wastewater	F.1+F.2	F.1+F.2	F.1+F.2	F.1+F.2	F.1+F.2	F.1+F.2	F.1+F.2	G.2				F.1+F.2+G.2
Reused water	F.3.1+F.4.1	F.3.1+F.4.1	F.3.1+F.4.1	F.3.1+F.4.1	F.3.1+F.4.1	F.3.1+F.4.1	F.3.1+F.4.1	O.4.1				F.3.1+F.4.1+O.4.1
Total returns	F.3.2+F.4.2	F.3.2+F.4.2	F.3.2+F.4.2	F.3.2+F.4.2	F.3.2+F.4.2	F.3.2+F.4.2	F.3.2+F.4.2	O.4.2				F.3.2+F.4.2+O.4.2
of which: losses	H	H	H	H	H	H	H					H
8. Water consumption (Millions m³)												
9. Gross fixed capital formation (Currency units)												
For water supply	P.1.1	P.1.1	P.1.1	P.1.1	P.1.1	P.1.1	P.1.1					P.1.1
For sewerage/sanitation	P.1.2	P.1.2	P.1.2	P.1.2	P.1.2	P.1.2	P.1.2					P.1.2
10. Closing Stocks of fixed assets for water supply (Currency units)												
11. Closing Stocks of fixed assets for water sanitation (Currency units)												

Note: the codes in the tables are provided as an indication that the data items are in the IFWG. They may be to be revised.



Core table 2

- Physical flows of water from/to environment
- Part of the physical asset account for water
- Focus on changes in stocks

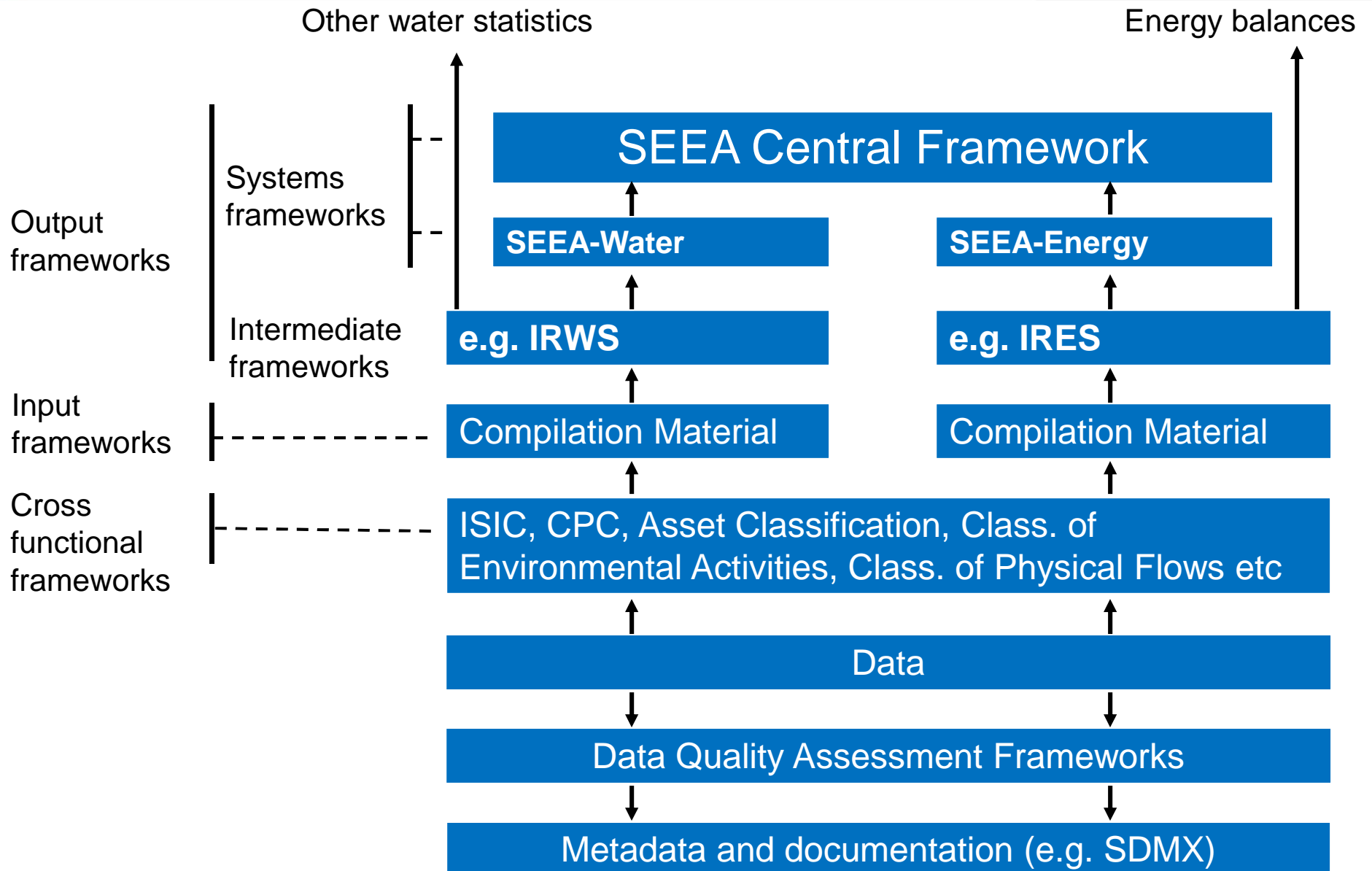
Core table 2 – Water resources accounts

	Type of water resource						Total
	Surface water				Groundwater	Soil water	
	Artificial	Lakes	Rivers	Glaciers, snow and ice			
Additions to stock							
Returns	H.1.1.1	H.1.1.2	H.1.1.3		H.1.1.4	H.1.2	H
Precipitation	B.1	B.1	B.1		B.1		B.1
Inflows from other territories	B.2.1	B.2.1	B.2.1		B.2.1	B.2.1	B.2.1
Inflows from other inland water resources							D
Discoveries of water in aquifers							
Reductions in stock							
Abstraction	E.1.1.1	E.1.1.2	E.1.1.3		E.1.1.5	E.1.2	E.1.3
for hydro power generation							E.a.a
for cooling water							E.a.e
Evaporation & actual evapotranspiration	C.1	C.1	C.1		C.1		C.1
Outflows to other territories			C.2.1		C.2.1	C.2.1	C.2.1
Outflows to the sea			C.2.2		C.2.2	C.2.2	C.2.2
Outflows to other inland water resources							D
Changes in stocks							



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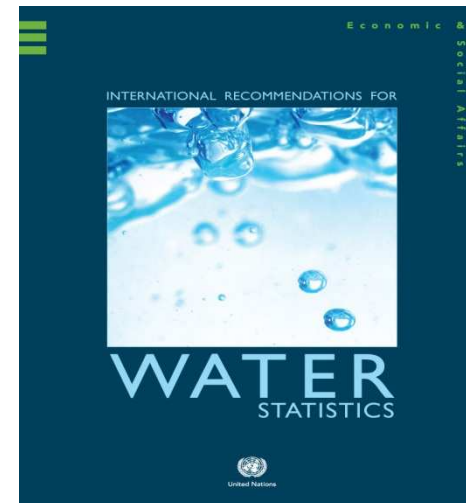
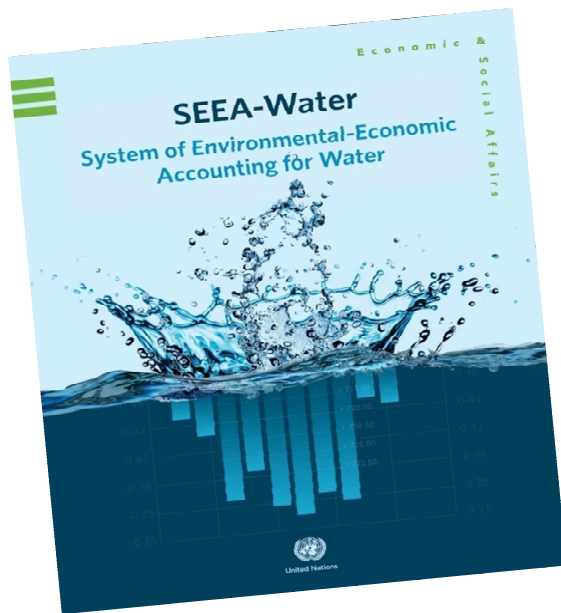




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After the SEEA-Water was adopted in 2007, the International Recommendations for Water Statistics (IRWS) were designed to assist countries in the implementation.



The documents have been translated into French, Spanish and Russian. Other translations will be available soon.



SEEA-Energy

- SEEA-Energy organizes physical and monetary information on energy
- It builds on the SEEA Central Framework and 2008 SNA
- Emphasis on the relationship between energy, the economy and the environment



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>

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