

The background of the slide features a composite image. On the right side, a hand is shown holding a small, green-tinted globe of the Earth. The background behind the hand is a bright, slightly blurred world map. The bottom portion of the slide shows a green field under a bright sky.

The SEEA Central Framework and SEEA Experimental Ecosystem Accounting

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SEEA – System of Environmental Economic Accounting

Today's global challenges

- Persistent inequalities
- Food and nutrition insecurity
- Knowledge challenge
- Growing environmental footprints
- Environmental sustainability
- Conflict, violence and insecurity
- Governance deficits
- Fiscal challenges
- Shifting demographics
(migration, urbanization, ageing)



Photo Credit: iStock Photo

➔ **Urgent need to find new pathways in pursuit of inclusive, equitable and sustainable global development**



Policy settings

- Post-2015 UN development agenda/SDGs
- UNDESA UNEP UNDP OECD initiatives on Green Growth/Green Economy
- Broader measures of progress/Beyond GDP
- World Bank Natural Capital Accounting/ WAVES
- Aichi targets of CBD strategic plan 2011-2020 (e.g. Target 2)
- UNDP Poverty and environment
- UNEP TEEB





Policy settings -- measurement

- Stiglitz Commission on the Measurement of Economic and Social Progress
 - "choices between promoting GDP and protecting the environment may be false choices once environmental degradation is appropriately included in our measurement of economic performance."
- European Union Beyond GDP initiative
 - "The Beyond GDP initiative is about developing indicators that are as clear and appealing as GSP, but more inclusive of environmental and social aspects of progress"
- OECD Better Life Initiative
 - "understanding what drives the well-being of people and nations and what needs to be done to achieve better progress for all



Vision: The Future We Want



We therefore acknowledge the need to further **mainstream** sustainable development at all levels **integrating** economic, social and environmental aspects and recognizing their **interlinkages**, so as to achieve sustainable development across all dimensions (para 3)





Sustainable development goals



We are determined to reinvigorate political will and to raise the level of commitment by the international community to move the sustainable development agenda forward, through the achievement of the internationally **agreed development goals** including the Millennium Development Goals (para 18)



Lessons learned from MDG Monitoring

- Statisticians were not involved in the process of defining development goals
- Perceived as a “top-down” initiative, not clear on how the numerical targets were set
- Some inconsistencies between goals, targets and indicators
- Not all goals have clear numerical targets
 - e.g. Goal 8 on global partnership
- Some numerical targets are poorly specified and its linked with goals are not easily understood
 - e.g. reduce number of slum dwellers for Goal 7 on environmental sustainability



Lessons learned from MDG Monitoring

- The link between environmental sustainability and the economy is weak
- Lack of unified theory or supporting integrated-statistical framework or international standard
- Developing countries do not have the statistical capacity to produce timely and relevant MDG indicators.
 - Often estimation by international organizations is required to impute missing data.



Implications

- 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 need to **strengthen the capacity of national statistical systems** to compile and report development indicators



Contributions from statisticians

- Ensure development goals translated into relevant numerical targets and indicators
- Ensure development indicators are :
 - Policy relevant and easy to understand
 - Theoretically and methodologically sound
 - Adhere to international standards and internationally comparable
- Establish baselines, meta data and narratives



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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.”



Broader measures of progress

- Assessment of **current well-being** and **sustainability**
- Changing emphasis does not mean dismissing GDP and other economic measures





Decisions during UNSC2013

- Insisted that the statistical community needs to be adequately involved in the discussion on new development frameworks, in order to advise early on any formation of targets and indicators
- Supported the formation of a **Friends of the Chair group (FOC)** to build a work programme to develop broader measure of progress
- Asks FOC to facilitate a continuous interface between the political and the statistical sphere



Challenges ahead for our operations

- Fundamental rethink and transformational change in mainstreaming the measurement of 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



Statisticians, politicians and policymakers must go hand in hand!

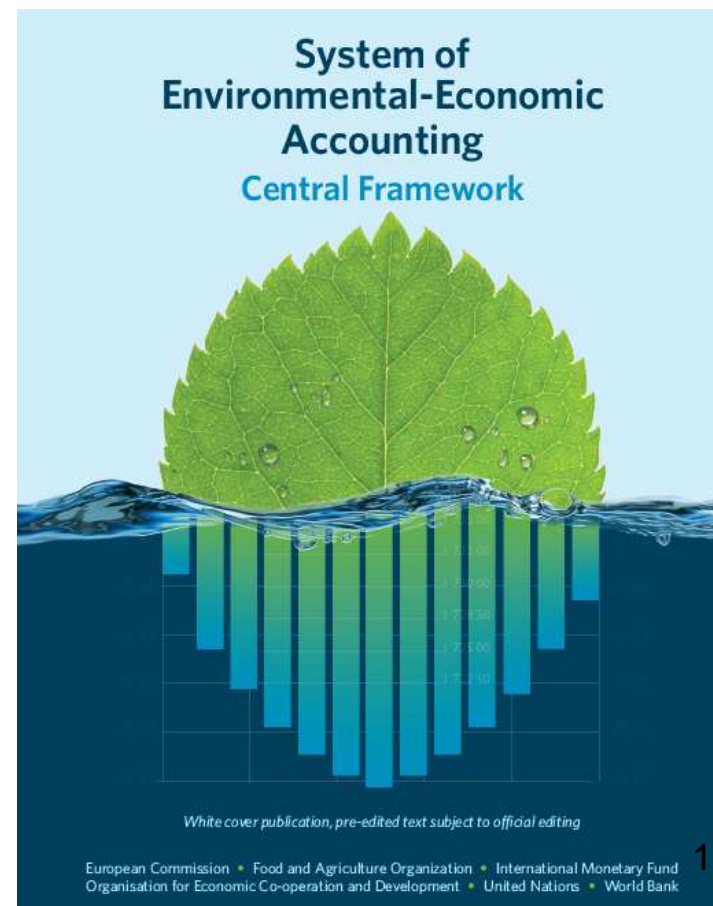




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Recent advances - SEEA

- 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

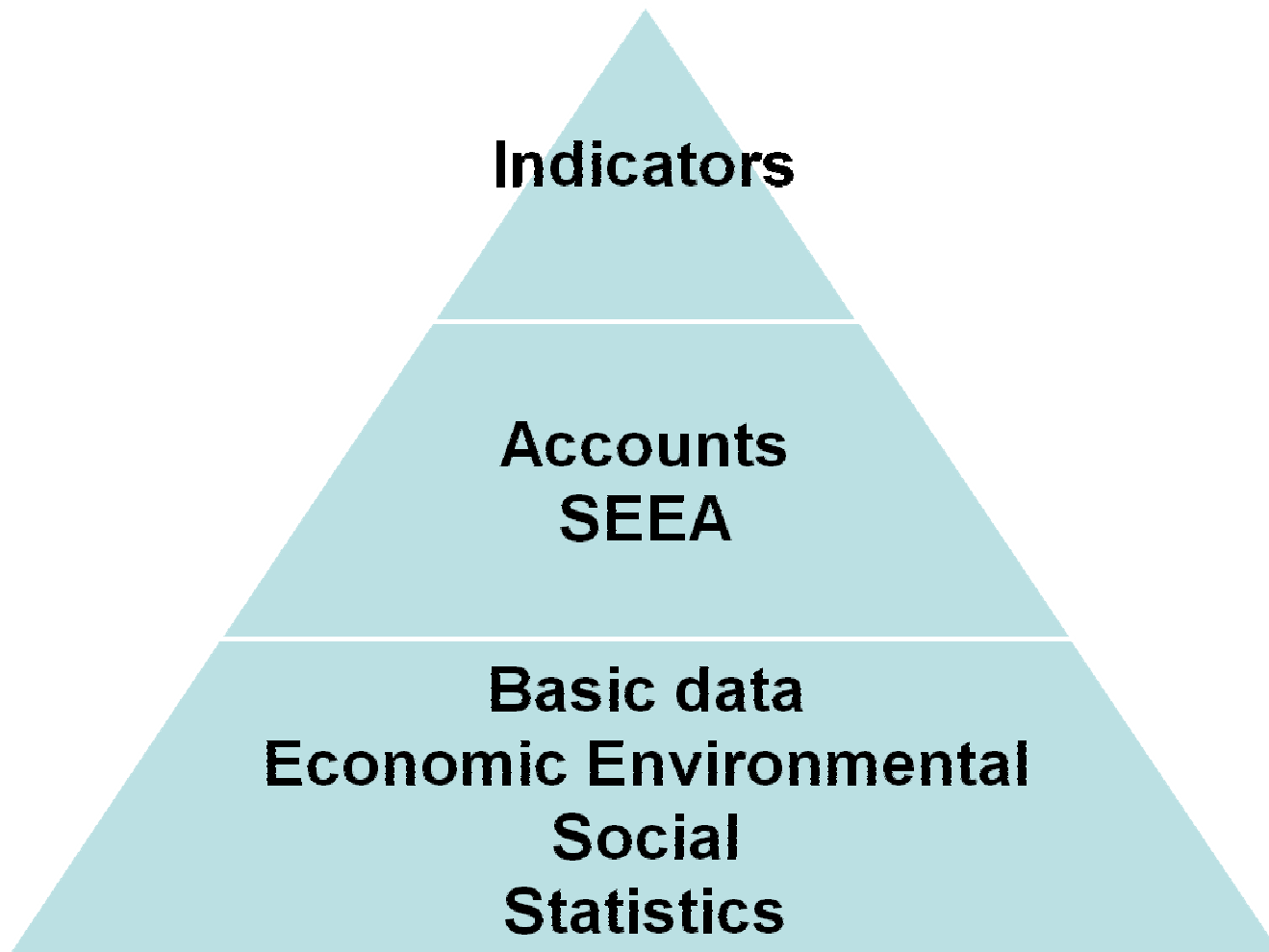
- **2012 SEEA – The Central Framework (internationally agreed standard)**
 - Chapter 1 – Introduction to SEEA Central Framework
 - Chapter 2 – Accounting structure
 - Chapter 3 – Physical supply and use
 - Chapter 4 – Environmental activity accounts and flows
 - Chapter 5 – Asset accounts
 - Chapter 6 – Integrating and presenting the accounts

- **2013 SEEA – Experimental Ecosystem Accounts**
- **2013 SEEA – Applications and Extensions**

- Subsystems:**
 - SEEA-Water, SEEA-Energy



The information pyramid





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

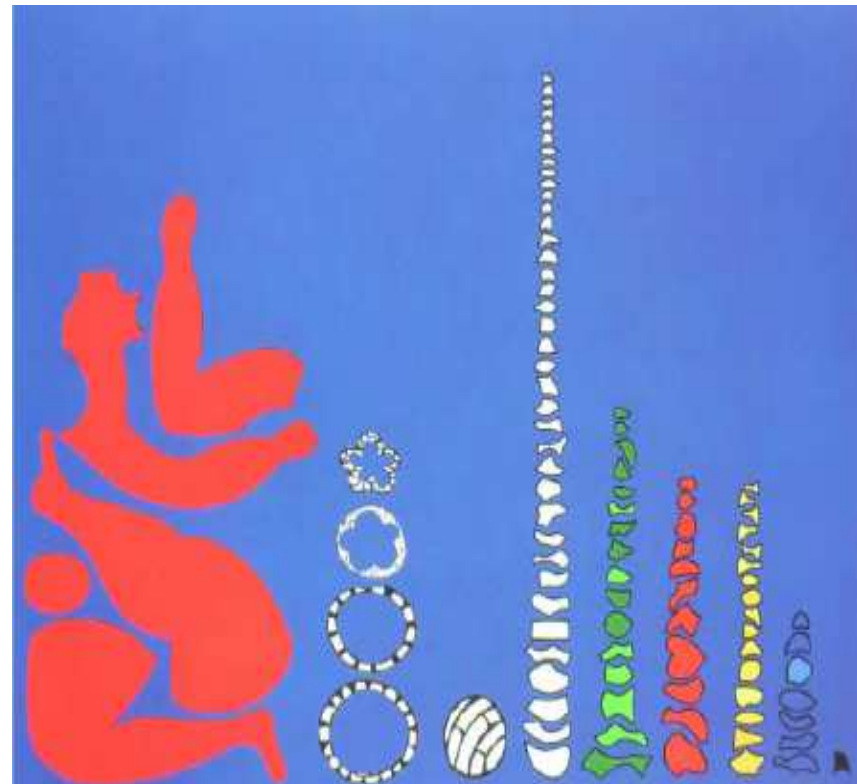




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Problem: Information silos

- 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

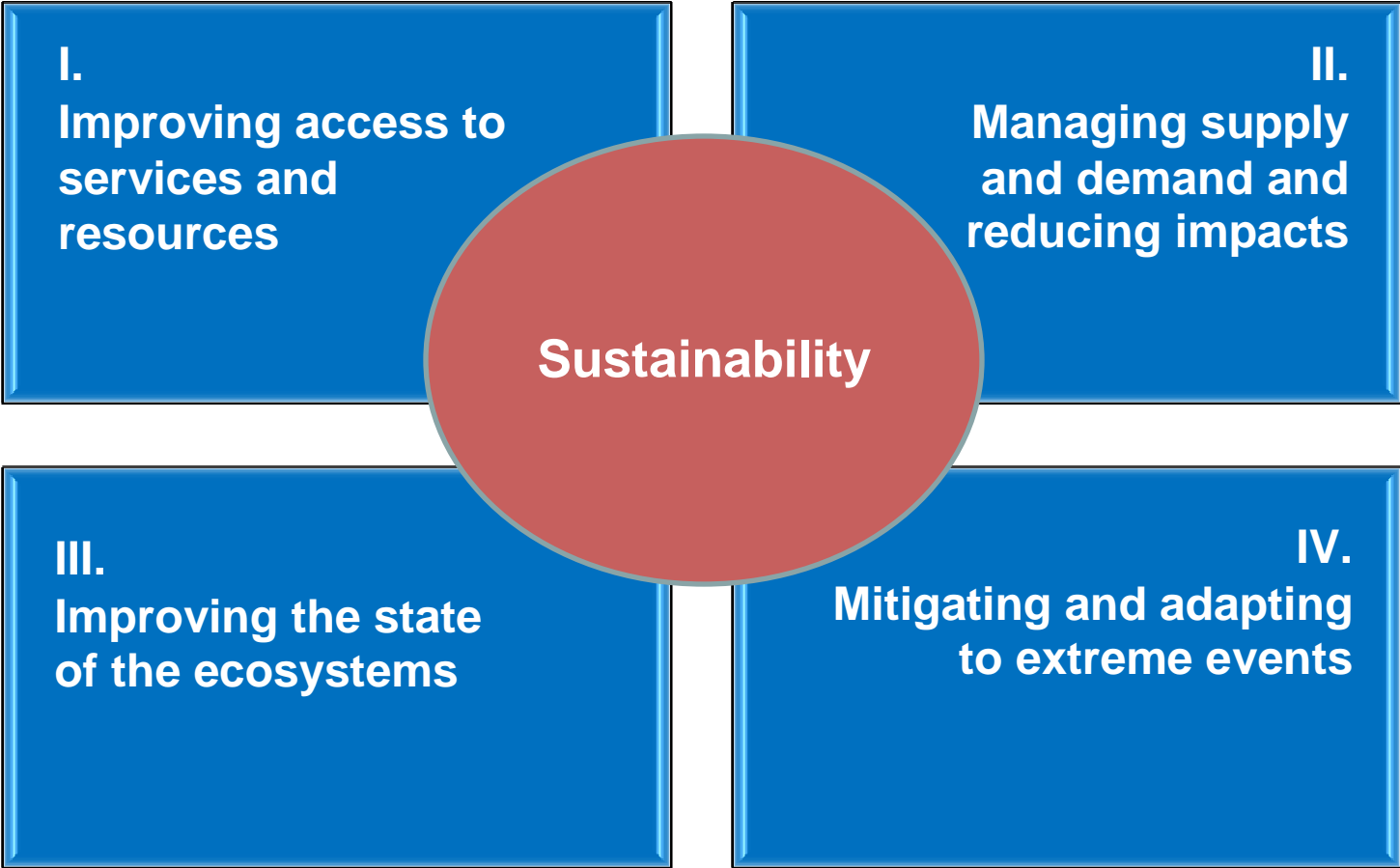
- Holistic picture
- Consistency of information and identification of data gaps
- Interconnections between economy, environment and society





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
- Supports relevant perspectives on the dimensions of economic development, environmental sustainability and social equity





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



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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



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Quadrant III: Water Quality and Water Health

Key information in this quadrant:

III. Improving the state of the ecosystems

- 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



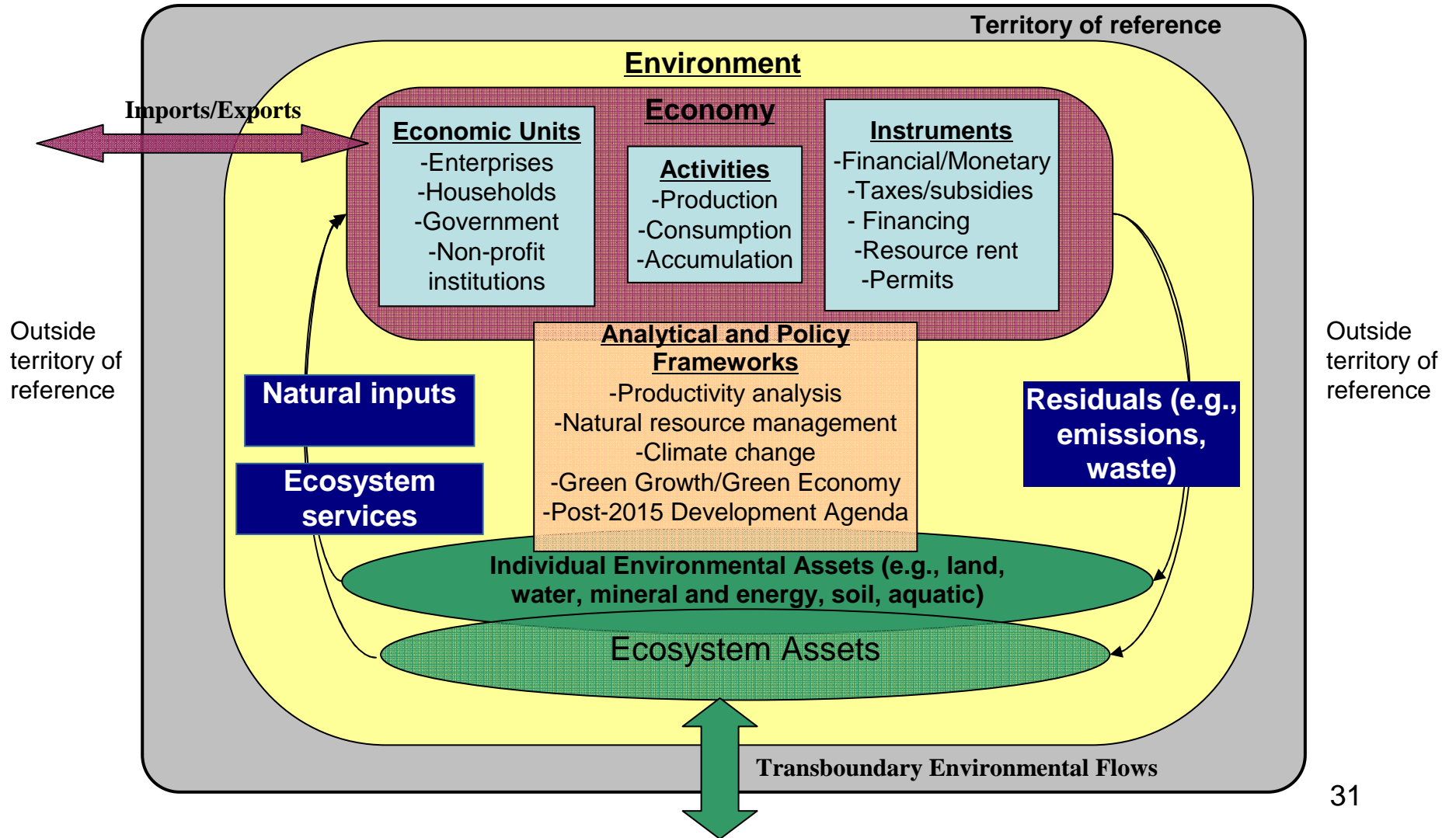
SEEA: A Statistical Standard

- 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



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SEEA Conceptual Framework





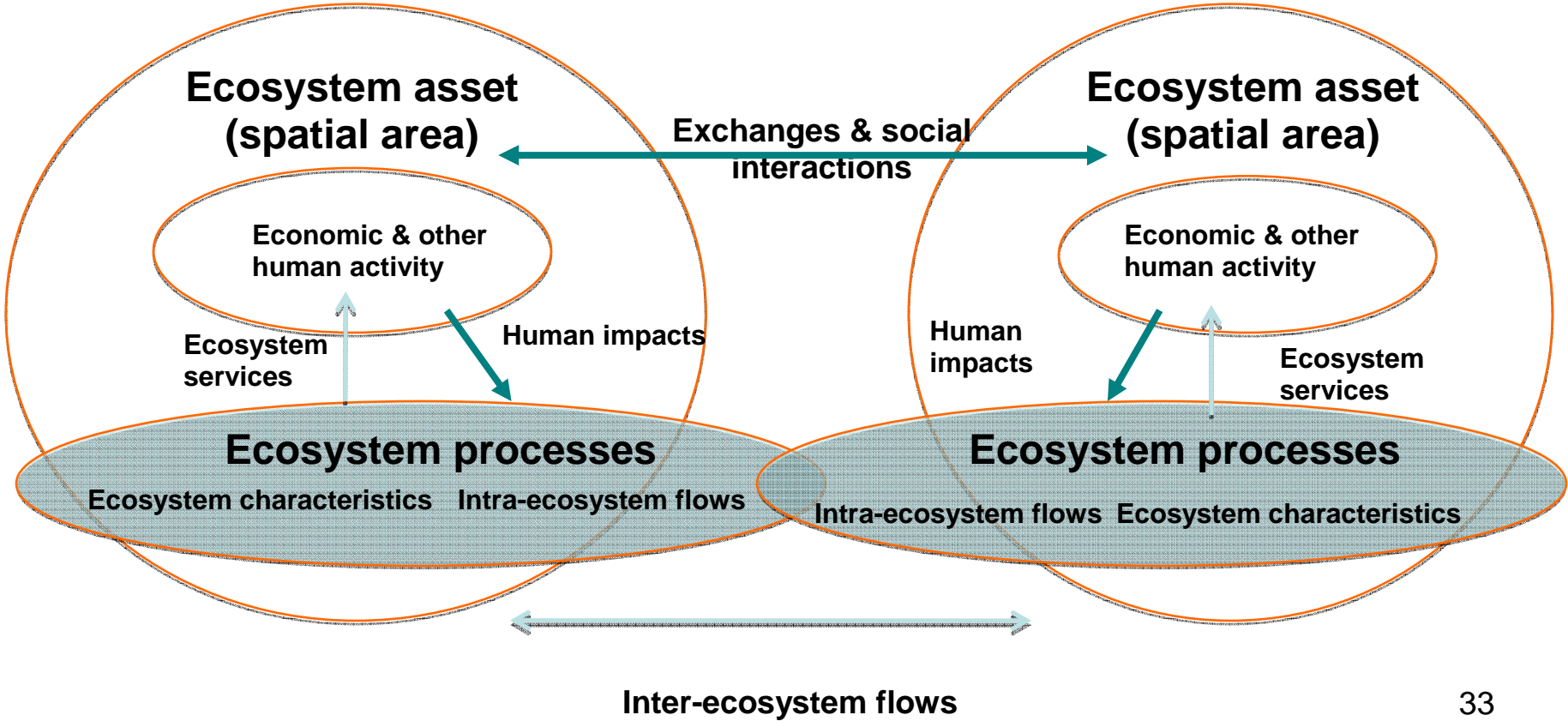
SEEA Experimental Ecosystem Accounting

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





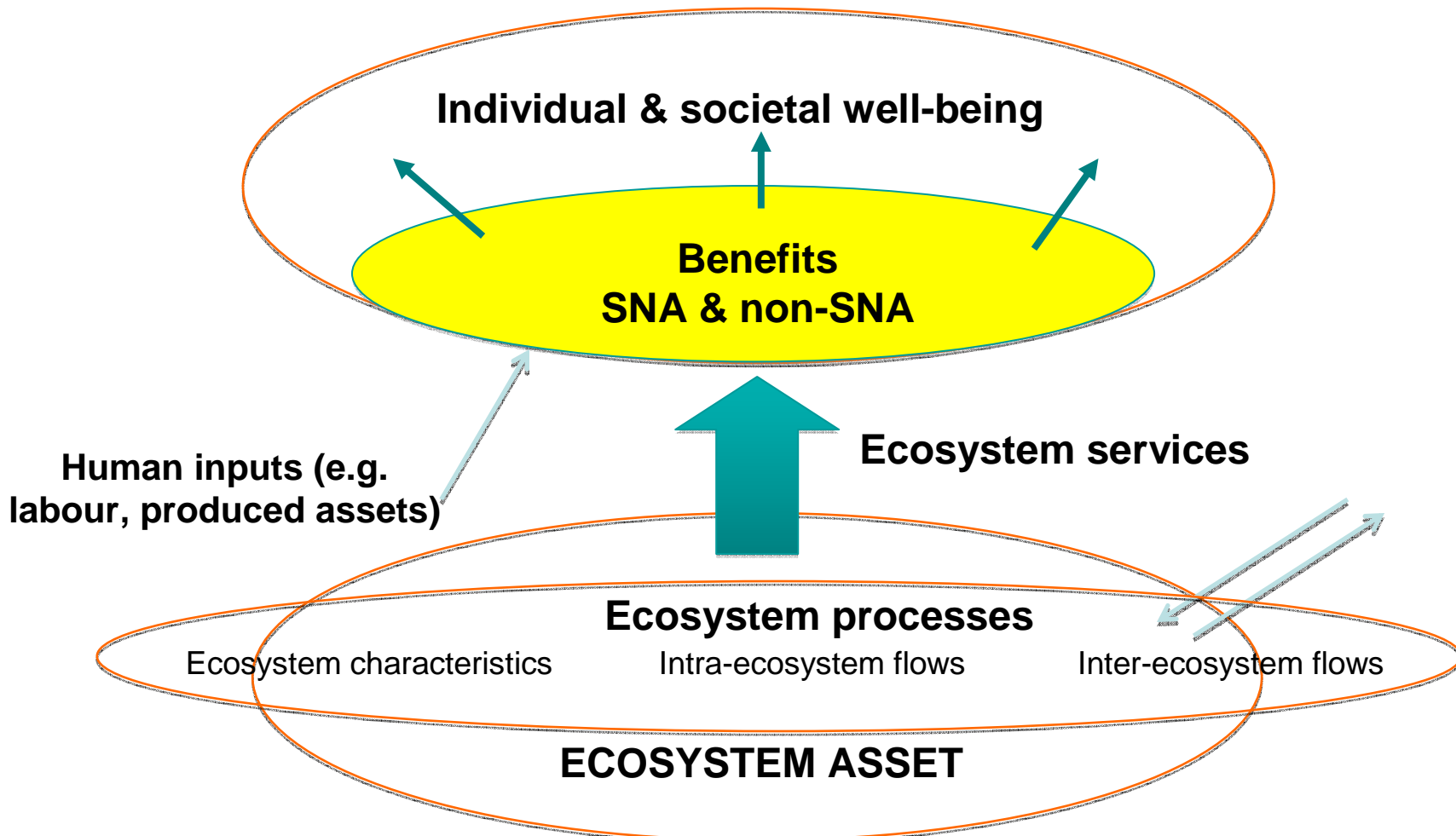
Basic accounting model





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Linking ecosystem assets and well-being through ecosystem services





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)





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SEEA Experimental Ecosystem Accounting

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



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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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