INTRODUCTION TO THE SEEA

Ms. Alessandra Alfieri
Chief, Environmental Economic Accounts Section
United Nations Statistics Division

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United Nations

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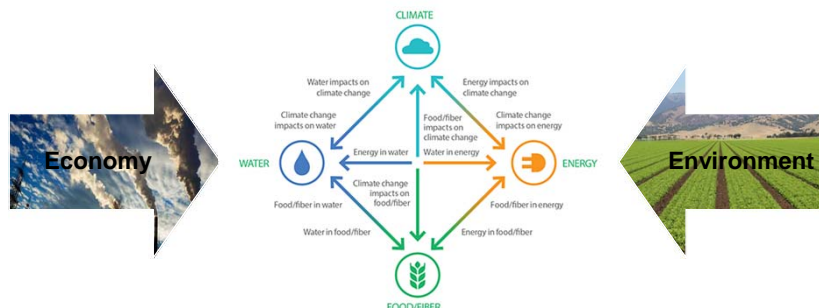
1. What is SEEA
2. Policy applications
3. Implementation of the SEEA
4. Challenges and limitations

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Legal and political commitments

1992: CBD Aichi Targets (Target 2)

1992: Agenda 21 (Rio)

2012: The Future we Want (Rio+20)

2015: 2030 Agenda for Sustainable Development and

Sustainable Development Goals

European Legislation

Natural Capital Accounting

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Integration for Sustainable Development

Economy → ← **Environment**

- Environmental policy must consider **interconnected natural systems**
  - ➤ E.g. Food, energy, water and climate change **nexus**
- Policies should recognize the links;
  - ➤ Between different natural systems → Integrated environmental information
  - ➤ Between the economy and environment → Integrated environmental-economic information

O SEEA

The System of Environmental Economic Accounting (SEEA)

- The **SEEA Central Framework** was adopted as an international statistical standard by the UN Statistical Commission in 2012 to measure the environment and its relation with the economy

- The **SEEA Experimental Ecosystem Accounting** complements the Central Framework and represents international efforts toward coherent ecosystem accounting

O SEEA

Two Different Perspectives

SEEA Central Framework:

Individual environmental assets/ resources

> Timber
>
> Water
>
> Soil
>
> Fish

SEEA Experimental Ecosystem Accounts:

Ecosystem assets (spatially based)

> Land cover/ Ecosystem types

Ecosystem Assets are environmental assets viewed from a systems perspective

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SEEA Central Framework Accounts

- Flow accounts: supply and use tables for natural inputs, products, and residuals (e.g. waste, wastewater)
  - Physical and/or monetary values
- Stock accounts: for environmental assets over an accounting period
  - Physical and/or monetary values
- Activity / purpose accounts: explicitly identify environmental transactions already existing in the SNA.
  - e.g. Environmental Protection Expenditure (EPE) accounts, environmental taxes and subsidies
- Combined physical and monetary accounts: bring together physical and monetary information for derivation indicators, including depletion adjusted aggregates
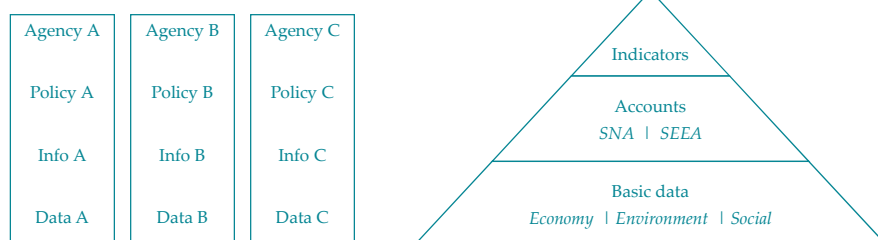
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SEEA Experimental Ecosystem Approach

- An integrated measurement framework for ecosystem stocks (assets) and flows (services) to measure the contributions of ecosystems to economic activity:
  - Ecosystem Assets and Condition
  - "Final" Ecosystem Services (Production):
  - Provisioning services: products that can be harvested or extracted from ecosystems
  - Regulating services: regulation of biological, hydrological and climate processes
  - Cultural services: non-material benefits of ecosystems e.g., tourism or cultural experiences
- A synthesis of current knowledge on ecosystem services, ecosystem condition and related concepts

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Systems of integrated information

O SEEA

Silo approach → Integrated statistics

Agency A	Agency B	Agency C
Policy A	Policy B	Policy C
Info A	Info B	Info C
Data A	Data B	Data C

Indicators

Accounts
SNA | SEEA

Basic data
Economy | Environment | Social

Accounts to integrate statistics:

- Address institutional arrangements
- Integrate statistical production process and services
- Ensure consistency between basic data, accounts and indicators

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SEEA: A Statistical Standard

- Countries are "encouraged to implement the standard"
- International organizations have obligations to assist countries in implementation
- Implementation strategy adopted ver. 2 by Statistical Commission in 2016.
- Data reporting mechanism will be established
  - Starting from existing data sources
  - Integration into core tables and accounts
  - Priority areas:
    - Energy accounts
    - Air emission accounts
    - Land Accounts
    - Material Flow Accounts
    - Water accounts

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POLICY APPLICATIONS OF THE SEEA

SEEA and the SDG indicators

The **SNA and SEEA** are statistical standards that can be used to monitor a number of environmental-economic SDG Indicators **in an integrated way**.
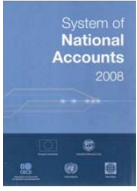
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Indicators based on standards

Indicators based on Standards

➢ Higher quality

➢ International comparability

➢ Comprehensive basis for (dis)aggregation

➢ **Standards for Statistics**

➢ Aligned Definitions and Classifications

➢ Improved capacity to compare and/or combine statistics from different sectors

➢ Basis for coherent and comprehensive data sets

Frameworks to coherently integrate information:

System of **National Accounts** 2008

System of **Environmental-Economic Accounting 2012** Central Framework

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A common conceptual approach across goals

	Material Flows & Solid Waste	Energy & Carbon Emissions	Water & Wastewater	Agriculture, Forestry & Fishery	Ecosystems	Land Use & Management
Efficiency/ Productivity in the use of Natural Resources	1. How do we define efficiency? How do we define productivity? 2. How do we measure efficiency/productivity in the use of natural resources? 3. How do we disaggregate and compare across sectors? 4. How do we juxtapose environmental and economic information to derive these indicators?					
Waste Minimization and Treatment	5. When is something considered waste? How is this defined? 6. How do we define reuse and recycling? How do we define 'regular collection', 'safe treatment' and 'good waste management'? 7. How do we disaggregate and compare this across sectors?					
Sustainability and Management of Resources	8. How do we define and compare economic uses of natural resources to their availability? 9. How do we classify and monitor management of those resources? 10. How do we use tools such as GIS and land accounting to inform this?					
Monetary Indicators	11. How do we measure and classify expenditure, taxes and subsidies on the management for different environmental issues?					

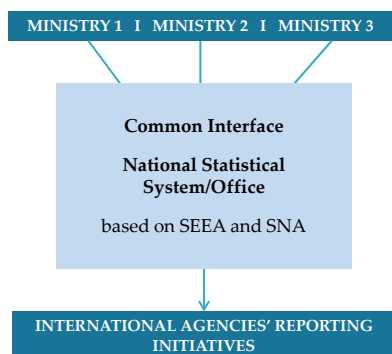➔ *The answers to these questions should be consistent across indicators.*
Aligning indicators to the SEEA and SNA helps build this consistency

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Streamlined reporting

Methodological Consistency resulting from implementation of the SEEA reduces reporting burden of national ministries/agencies:

MINISTRY 1 I MINISTRY 2 I MINISTRY 3

Common Interface

National Statistical System/Office

based on SEEA and SNA

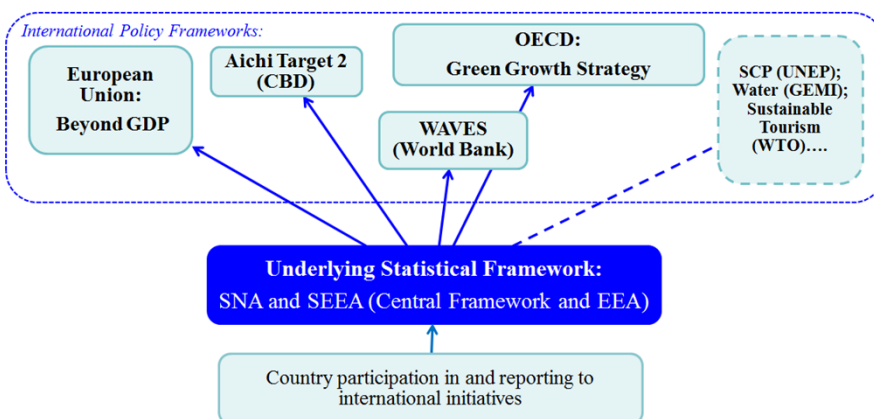INTERNATIONAL AGENCIES' REPORTING INITIATIVES

- Single Data System to Inform Indicators
- Data Compiled Once for Many Purposes
- Reduced need for countries to make arduous data adjustments for international reporting

Facilitates streamlined reporting process for global SDG Indicators

- Consistent definitions, classifications and spatial units at national and international level allows for **direct transmission of information**

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SEEA: Underlying statistical framework for international initiatives

International Policy Frameworks:

European Union: Beyond GDP

Aichi Target 2 (CBD)

OECD: Green Growth Strategy

WAVES (World Bank)

SCP (UNEP); Water (GEMI); Sustainable Tourism (WTO)....

Underlying Statistical Framework:
SNA and SEEA (Central Framework and EEA)

Country participation in and reporting to international initiatives

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Economic
Accounting

IMPLEMENTATION OF THE SEEA

United Nations

Countries working on the SEEA

Europe

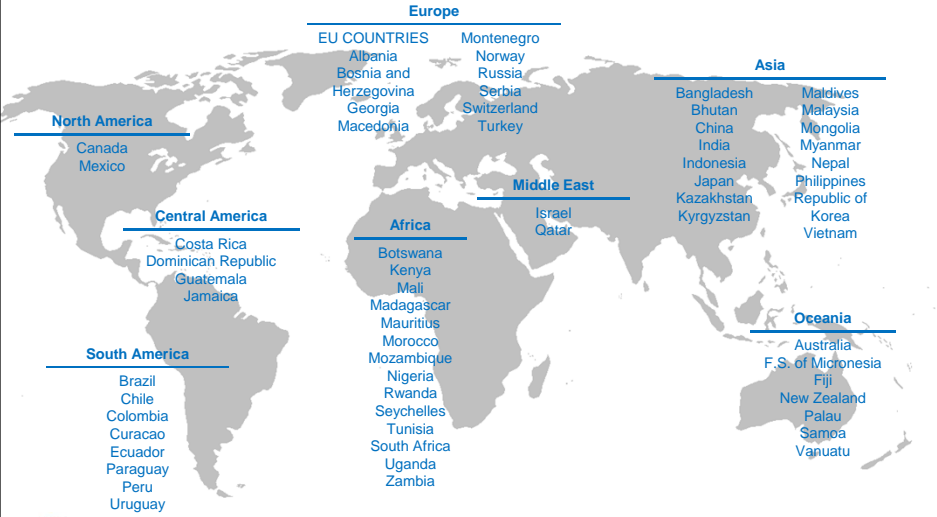EU COUNTRIES   Montenegro
Albania   Norway
Bosnia and   Russia
Herzegovina   Serbia
Georgia   Switzerland
Macedonia   Turkey

Asia

Bangladesh   Maldives
Bhutan   Malaysia
China   Mongolia
India   Myanmar
Indonesia   Nepal
Japan   Philippines
Kazakhstan   Republic of
Kyrgyzstan   Korea
              Vietnam

North America

Canada
Mexico

Central America

Costa Rica
Dominican Republic
Guatemala
Jamaica

Middle East

Israel
Qatar

Africa

Botswana
Kenya
Mali
Madagascar
Mauritius
Morocco
Mozambique
Nigeria
Rwanda
Seychelles
Tunisia
South Africa
Uganda
Zambia

Oceania

Australia
F.S. of Micronesia
Fiji
New Zealand
Palau
Samoa
Vanuatu

South America

Brazil
Chile
Colombia
Curacao
Ecuador
Paraguay
Peru
Uruguay

*Country list based on Global Assessment on Environmental Accounting (2014) (http://unstats.un.org/unsd/statcom/doc15/BG-UNCEEA.pdf), UNCEEA survey of where assistance is being provided (UNCEEA/BK/5(2) at http://unstats.un.org/unsd/envaccounting/ceea/meetings/eleventh_meeting/lod11.htm), and other current knowledge of technical assistance programmes. Some countries may be only just embarking on a project related to SEEA.

Status of SEEA Implementation

Status of SEEA Implementation (2014)
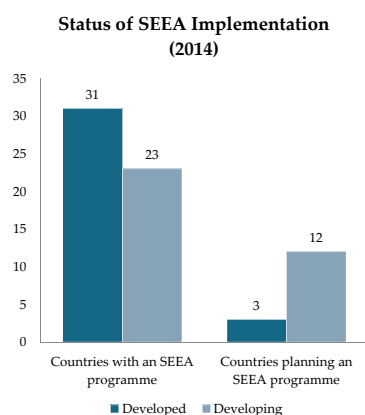
- Global Assessment on Environmental Economic Accounting 2014
- 84 countries responded
- 54 currently have an SEEA programme
- **Accounts most commonly compiled;**
  - ➤ Air Emissions, Material Flows, Energy
- **Priorities accounts going forward;**
  - ➤ Developed Countries: Energy, EPEA and EGSS
  - ➤ Developing Countries: Energy, Water and Environmental Taxes and Subsidies

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SEEA Implementation Strategy

- Joint strategy for SEEA Central Framework and Experimental Ecosystem Accounts

OBJECTIVES:

- Adoption of the SEEA as the **measurement framework for sustainable development**
- Mainstreaming of SEEA implementation in countries as part of the modernization statistical production process
- Establishment of technical capacity for regular reporting on a minimum set of SEEA accounts

TARGETS FOR 2020

- **100 countries** with ongoing programmes on SEEA Central Framework
- **50 countries** initiating work on SEEA Experimental Ecosystem Accounting

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UNCEEA Work Programme

- The UNCEEA is the umbrella body for coordinating efforts in environmental-economic accounting
- A **Work Programme 2017-2020** was developed by the Bureau of the UNCEEA and takes a **5-pronged approach** to global implementation
- For each area of work, different **area leads** are responsible for; a) acting as a champion and providing leadership, b) developing more detailed work plans and strategies, and c) coordinating with other members of the UNCEEA

1. Coordination and promotion *(Statistics Canada)*	2. Methodological development *(Statistics Netherlands & Eurostat)*	3. Development of databases *(OECD)*
4. Implementation and statistical capacity building *(Statistics South Africa)*	5. Formulation of a statistical response to emerging policy issues *(Australia Bureau of Statistics & INEGI Mexico)*	

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Approach to National Implementation

Phase 1 • National Assessment and National Plan

Phase 2 • Programmes of work for priority accounts

Phase 3 • Pilot compilation of priority accounts

Phase 4 • Data quality assessment and sustainable production of SEEA accounts

Training and Capacity Building

Communication and Advocacy
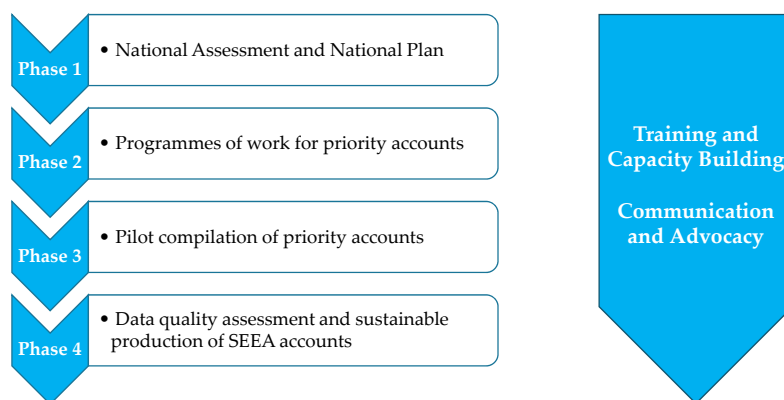
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Considerations for SEEA implementation

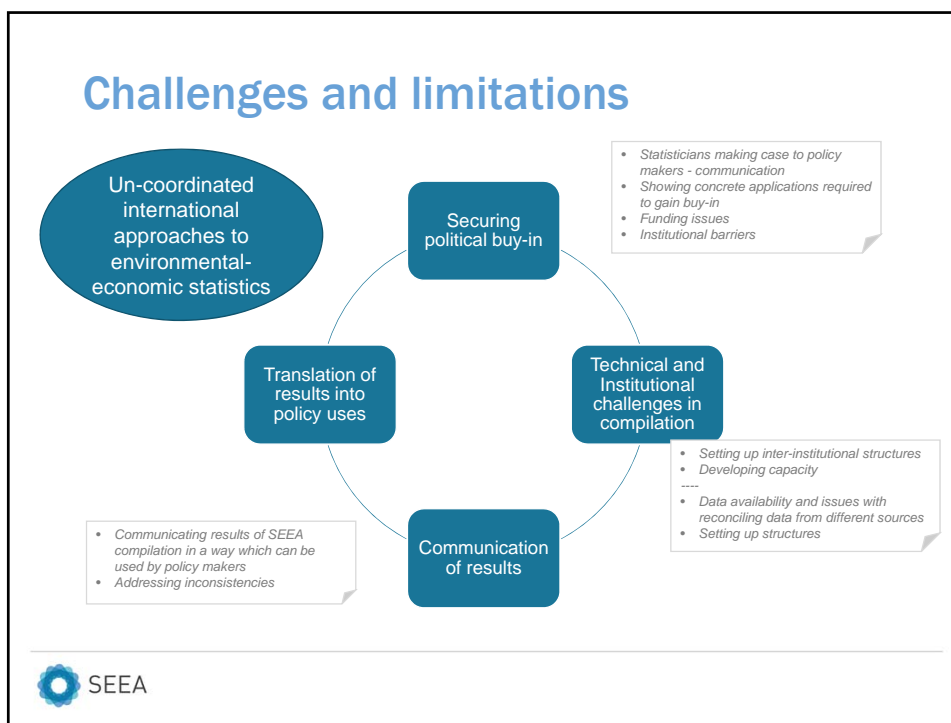|		
Strategic approach to implementation	Linking implementation to policy demands	National ownership
Regional and sub-regional approach	Capacity building	Communication strategy

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System of
Environmental
Economic
Accounting

CHALLENGES, LIMITATIONS, DISCUSSION ITEMS

United Nations

Challenges and limitations

Un-coordinated international approaches to environmental-economic statistics

Securing political buy-in

- *Statisticians making case to policy makers - communication*
- *Showing concrete applications required to gain buy-in*
- *Funding issues*
- *Institutional barriers*

Translation of results into policy uses

Technical and Institutional challenges in compilation

- *Setting up inter-institutional structures*
- *Developing capacity*

- *Data availability and issues with reconciling data from different sources*
- *Setting up structures*

- *Communicating results of SEEA compilation in a way which can be used by policy makers*
- *Addressing inconsistencies*

Communication of results

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Issues for discussion

- What are your first impressions of the module? What appears new and/or challenging?

- Can a presentation along the lines of Module 1 help in bringing different stakeholders on board to undertake the SEEA implementation?

- Implementation strategy – how does it apply to your country situation?

- What are the main policy priorities in your country? Can the SEEA help inform them?

- The SEEA uses the same accounting structure of the SNA, but there are some difference. Please elaborate. Are national accountants involved in the SEEA implementation in your country?

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Issues for discussion

- Additional issues
  - › Prioritizing accounts based on policy demands
  - › Managing the implementation process – what are the main issues/impediments in your country?
  - › Communication – how to best communicate the benefits of the SEEA to different stakeholders?

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THANK YOU

seea@un.org