The SEEA and the SDGs Indicators

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Outline

- The Role of the SEEA for Monitoring the SDGs
  - Criteria for SDGs
  - Contribution of SEEA to meeting criteria
- Example: The SEEA-Water and Sustainable Development Goal 6

SDG Indicators: Statistical Challenges

'Emerging Topics': Develop standards and build capacity

'Existing Topics': Topics within the scope of the SEEA are being monitored by various frameworks and organizations. Preference for choosing indicators based on these frameworks cause concerns;

- Short Term vs. Long Term Strategy: Choose indicators based on available statistics or develop national systems to inform standards-based indicators?
  - But there is a pressing need to develop 2015 baseline
- National vs. Global: is the goal to inform national policy or facilitate international monitoring through further development and use of existing global datasets?
- For topics which have long been on the agenda, existing measurement approaches often take a silo approach

SDG Indicators: SEEA Contribution

The UNCEEA is presenting a paper on ***"The SEEA and the SDG indicators"*** to illustrate the how the SEEA can contribute to the monitoring of the SDGs. The paper;

•Illustrates how the SEEA can result in higher quality indicators in terms of;

1. Policy Relevance and Utility
2. Analytical and Methodological Soundness
3. Measurability and Practicality

•Provides examples for water and energy to illustrate how the SEEA framework can;

- Enhance monitoring: higher quality indicators
- Support policy: providing an integrated information framework

Sustainable Development and the SEEA

Recognition that Sustainable Development Policy should:

1. **Be based on Evidence:** Policy should, to the greatest extent possible, be informed by rigorously established evidence
2. **Take an Integrated Approach:** Policy should be based on a better understanding of interactions and tradeoffs between the different realms of sustainability

There is therefore a need to develop a **system of information** which

- Represents **multiple dimensions** of sustainable development and their interconnections
- Supports **indicators** which meet a **minimum standard** necessary for their effective use

→ Set of Criteria for SDG indicators

Criteria (1/3): Policy Relevance and Utility

I. Accurately describe the phenomena it was designed to measure

II. Be supported by supplementary information

III. Be sensitive and responsive

IV. Have the possibility to be disaggregated

V. Be timely and based on data which can be produced in a timely fashion

SEEA: Policy Relevance and Utility

- The SEEA presents environmental-economic information which is relevant to policy at three levels;
  1. Summary information directly derived from the accounts in the form of **aggregates and indicators** as headline numbers to frame discussions
  2. More detailed information contained in the accounts highlights key drivers of change and provide **descriptive statistics** offering a richer understanding of policy issues
  3. Data contained within the SEEA can be used, in combination with data from the SNA, for **environmental-economic modelling** to assess various scenarios and set policy priorities
- Statistics structured according to the SEEA present a basis for disaggregation on a number of levels
  - Industry level; institutional sector, product/asset type, etc.

Core Tables: Policy Relevance and Utility

- **Technical Notes** being prepared to provide implementation support for compilers of the accounts
- **Core Tables** represent a simplified form of the key accounts, which will serve as the basis for eventual reporting;
  - The tables present concise, highly relevant information (often in an aggregated format compared to the SEEA-accounts)
- The Core Tables will be aligned with information requirements from the SDGs such that they can support the derivation of indicators
- The Tables' accounting structure can further enhance monitoring and support policy design by presenting important contextual information and descriptive statistics to support headline indicators

Criteria (2/3): Analytical Soundness

VI. Be based on best practice methodology (i.e. uses international standards of best practice)

VII. Be compliant with international standards (in terms of definitions, classifications, etc.)

VIII. Be broadly consistent with systems based information (i.e. be embedded within larger information systems)

SEEA: Analytical Soundness

- Adoption of the SEEA acts as a vehicle for harmonization of environment statistics
  - Ensuring consistency and coherence of indicators calculated from multiple data items produced under one framework
- Consistency with the SNA allows for integration of environment statistics with economic and other statistics
  - Allows for calculation of important ratios
  - Sustainable development indicators which consider the ratio of environmental factors to economic factors can be calculated in a methodologically coherent manner

Criteria (3/3): Measurability and Practicality

IX. Constructed from well-established data sources

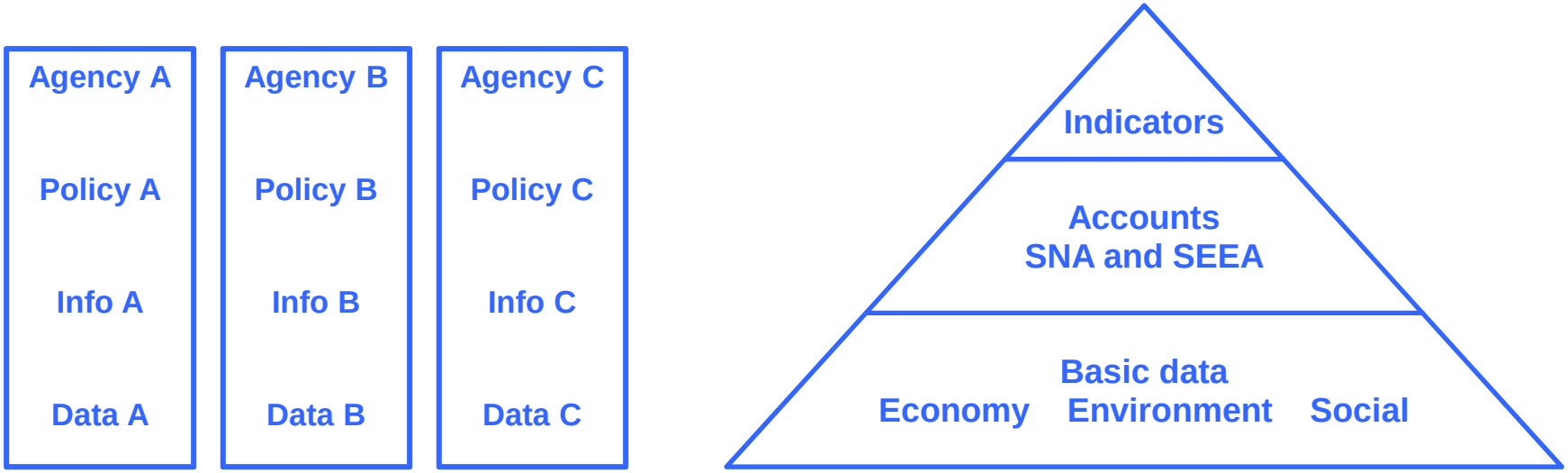
X. Supported by data which is readily available or attainable at a reasonable cost/benefit ratio

XI. Be easily accessible to the general public (indicators should be freely available, as well as simple, clear and easy to understand)

XII. Managed by a responsible agency (both at national and international level)

SEEA: Measurability and Practicality

The SEEA can be a vehicle to achieve an integrated production process for indicators by consolidating data collection and compilation:



Silo Approach → **Integrated Statistics**

SEEA: Measurability and Practicality

- The compilation of accounts requires that countries do a "stocktaking" of existing data collection activities
- **In data poor environments** the SEEA allows data to be used in multiple ways
- The structure of the SEEA allows for identification of data gaps, and calculation of reliable estimates for missing data items
- The SEEA can facilitate more timely production of indicators as reliable estimates can be calculated using the accounting structure

Example: Indicators for Water

- An inclusive process is underway to develop an indicator set for water involving many different agencies. A set of core and supplementary indicators have already been proposed
- The SEEA-Water can;
  1. Directly inform derivation of some of these indicators
     - Combining physical and monetary information coherently
  2. Provide contextual information on targets for policy-makers
     - Coherent disaggregation of headline indicator
     - Structure and direction of flows
  3. Present a system of information to inform integrated policy decisions
     - Policy quadrants, information needs and Integrated Water Resources Management

Example: Target 6.3

*"by 2030, improve water quality by **…..** halving the **proportion of untreated wastewater**, and increasing **recycling and safe reuse** by x% globally"*

Indicator Proposed: Percentage of wastewater safely treated

- A composite indicator based on treatment ladders for domestic and industrial waste water. Use the partial monitoring framework in place (AQUASAT, IBNET, GLAAS). In the absence of verified national data modelled estimates can be generated

Key Issues with Approach:

- Indicator only focusses on the one aspect of the target which can currently be measured/modelled (i.e. treatment)
- Use of global datasets and modelled information does little to support national policy → a short term approach

Long Term: Basing the headline indicator on national data compiled within an integrated approach (e.g. SEEA-Water) would better inform national policy

Example: Target 6.3

*"by 2030, improve water quality by **…..** halving the **proportion of untreated wastewater**, and increasing **recycling and safe reuse** by x% globally"*

Advantages of using SEEA-Water

- The integrated approach of the SEEA water can provide a **systems level understanding** of wastewater flows and their treatment and re-use
- In particular, accounts in the SEEA can provide information on;
  - Wastewater flows between economic units (volume and direction)
  - Wastewater flows from the economy to the environment (either direct discharge or via treatment facilities)
  - The key industries involved in wastewater generation, discharge to environment, treatment and re-use
- Incorporation of this information into **combined presentations** means these physical flows can be linked to corresponding expenditure and investment in the provision of services related to wastewater

Example: Target 6.4

*"by 2030, **substantially increase water-use efficiency across all sectors** and ensure….."*

Indicator Proposed: Water Productivity

- Changes in water-use efficiency over time for major sectors (where value is defined for each sector). Can be aggregated to reflect overall change in productivity across sectors or disaggregated to the sector level)

Can be directly informed by accounts:

- Information on water-use by households and industries (disaggregated by desired sector) in the Physical Supply and Use Tables
- SNA information on value added

Key Advantages of basing indicator on SEEA-Accounts

→ Monetary and physical flow information can be combined coherently.

→ Disaggregation is easy due to aligned classifications (i.e. ISIC) in SEEA and SNA

→ Provides a framework to estimate missing data

Example: Target 6.4

*"by 2030…..**ensure sustainable withdrawals** and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity."*

Indicator Proposed: Water Stress

- Ratio of total water withdrawals to available water (total actual renewable freshwater resources)

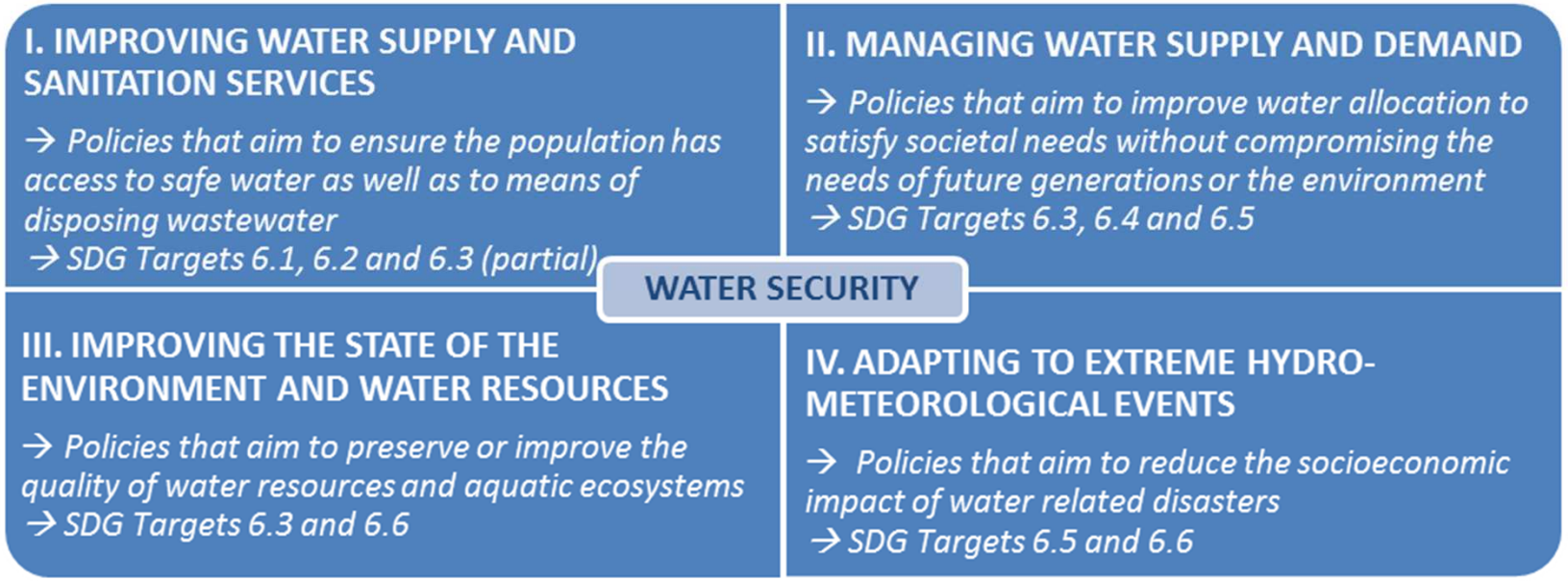
Informed provided by Accounts:

- The asset accounts for water;
  - Show changes in stocks of inland water resources over an accounting period, attributing these either to human or environmental flows
  - The use of asset accounts over time will provide key information on water levels, and the extent to which stocks are being depleted over time
  - The evolution of the changes in stocks, and in particular the extent to which human pressures are causing reductions in stocks of water can also be monitored
- SEEA-Water can be adjusted to calculate renewable resources

Example: Supporting Integrated Policy

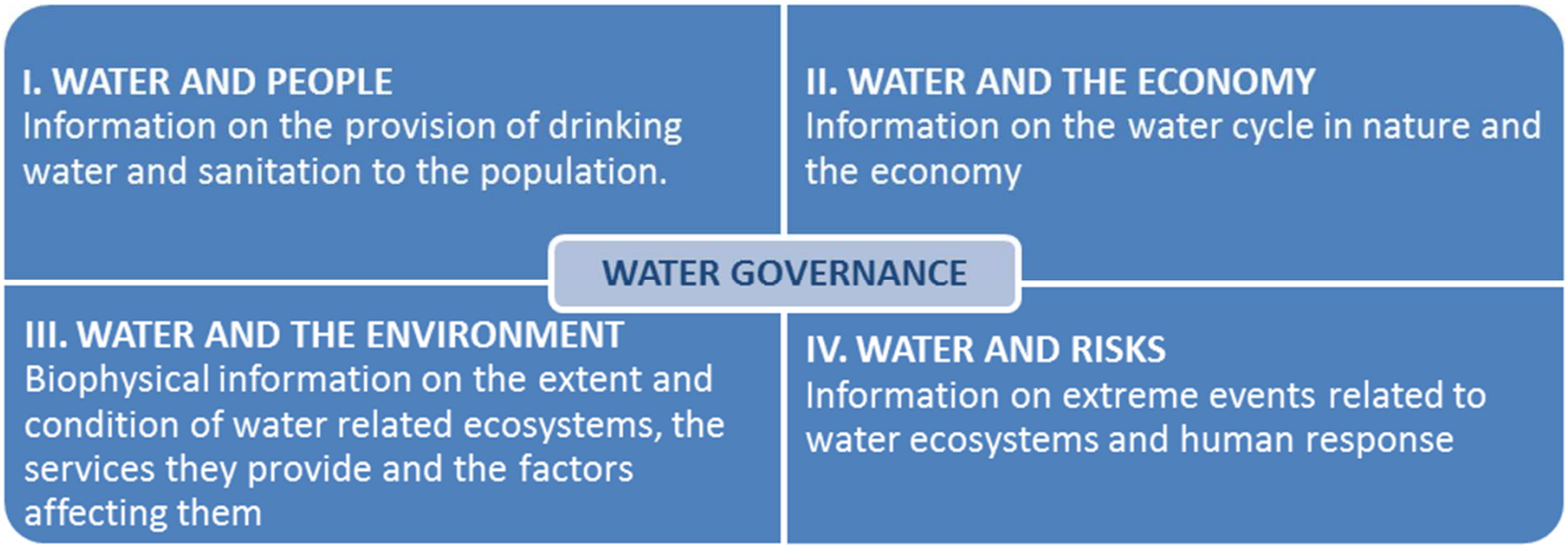
Target 6.5 calls for implementation of **integrated water resources management**;

- The SEEA can be a tool to facilitate this by bringing together information relevant to the four key quadrants of water policy objectives;



Example: Supporting Integrated Policy

Four quadrants of information correspond to these policy objectives:



This information is bought together in the SEEA-Water accounts in an integrated way (see next slide)

Example: Supporting Integrated Policy

Accounts	Quadrants
Physical Supply and Use Tables: Flows (i.e. volumes) of water abstracted from the Environment, used in the Economy and discharged back into the Environment	I II
Emissions Accounts: Quantity of water pollutants discharged from Economy to Environment; directly or via wastewater through treatment	II III
Asset Accounts: Stocks of water resources in the Environment and changes in those stocks due to natural and economic (i.e. human) causes	II
Combined Presentations: Linking information on water volumes with monetary information on the production and consumption of water-related products	I II
Economic Accounts: Sources of financing, channels of cost recovery, payment for water rights, etc.	All
Ecosystem Accounts: Water-related ecosystems including their characteristics and provision of ecosystem services	III IV

Key Points

SEEA is an important tool for monitoring the SDGs supporting policy towards meeting targets.

The Accounting structure improves robustness to a set of general criteria for SDG indicators improving quality;

- **Policy relevance:** Indicators are supported by organized information which promotes a detailed understanding of the drivers of change
- **Methodological Soundness:** SEEA acts as a vehicle for harmonizing methodological inconsistencies across the environmental data production process, and enables coherent comparison of environment statistics with economic statistics
- **Practicality:** SEEA can create efficiencies in the data production process