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Rev 17

Guidelines for the Compilation of Water Accounts and Statistics

(Draft Detailed Outline)

Overview of the Organization of the Document

The Guidelines will be organized in five chapters. **Chapter 1** will explain why the implementation of the System of Environmental-Economic Accounts (SEEA) provides a sound basis for monitoring water policies. **Chapter 2** will show how water accounts respond to the water policy needs. **Chapter 3** will provide practical guidance on how to compile the data needed from the different sources and how it is incorporated in the framework. **Chapter 4** will discuss the practice of making the information produced accessible to the different users. Finally **Chapter 5** will focus on strategies to institutionalize the accounts and maintaining a positive feedback loop to increase the detail and quality of the data.

Detailed Outline

Chapter 1 DEVELOPING AN INTEGRATED MONITORING FRAMEWORK FOR WATER

This chapter will explain how the System of Environmental Economic Accounts for Water (SEEA-Water) and the International Recommendations for Water Statistics (IRWS) informs the policy frameworks and the strategic approach to their implementation.

The chapter will discuss the different water policy needs and how they can be organized using a structure of quadrants with broad policy objectives. These policy objectives range from access to water, to water supply and demand, to water quality, and extreme hydro-meteorological events.

The chapter will also discuss the institutional arrangements needed to implement the accounts. It will present case studies of countries that have implemented the SEEA-Water.

A. The need of comprehensive, consistent and comparable information to inform policy makers

- Information for development purposes.
- Absence of systematic data collection in most countries
- The role of official statistics to respond to policy needs

B. The water policy needs and its organization in quadrants

- Grouping of water issues and the different policies to achieve water security.
- Improved water and sanitation. The water and sanitation utilities. Problems and policies.
- Water supply and demand. Main water users. Problems and policies.

- Water quality and environmental health of water bodies. Water quality objectives. Main emissions affecting water. Problems and policies.
- Hydrometeorological phenomena (droughts and floods). Problems and policies.
- Indicators for the different policy quadrants (For example, the 3 Ts, "tariffs, taxes, and transfers", for quadrant I, indicators for the World Water Assessment Report).

C. Water accounts and statistics within the National Strategies for the Development of Statistics (NSDS)

- The International Statistics System and the National Statistics Systems.
- Strategies for improving National Statistics Systems
- Mainstreaming official statistics to include all aspects of development monitoring.
- The role of National Statistics Offices in inter-organizational efforts to develop water accounts and statistics.

D. The water monitoring framework within National Statistics Systems (NSS)

- Understanding the different National Statistics Systems and how water monitoring can be incorporated.
- Overview of various organizational arrangements.
- Examples of inter-organizational arrangements in different countries (experiences with the new NSS of Mexico, the case of South Africa…)

Chapter 2 INTEGRATION OF DATA IN ACCOUNTS TO RESPOND TO POLICY NEEDS

This chapter will emphasize the benefits of integrating data according to accounting rules. It will discuss the linkages of SEEA-Water to the System of National Accounts and the different standardized classifications, such as the International Standard Industrial Classification (ISIC) and the Central Product Classification (CPC). The chapter will present the rationale behind the supply and use tables as well as the different ways in which they can be used to check consistency and used as the basis for informing the different audiences. It will be shown how data becomes information when it is put together in a comprehensive, consistent and comparable framework.

This chapter will include examples of physical and monetary supply and use tables, as well as asset accounts related to water. The examples will show how the different SEEA-Water tables provide guidance and priorities for the data collection process.

A. Integrating the data with a system's perspective

- Systemic approach to water information. The inland water system and the economic system. Studying the systems through stocks and flows.
- International classifications of industries and products.
- Overview of the accounting rules developed through the System of National Accounts.
- The supply and use tables in the SEEA-Water.
- The asset accounts and the natural water cycle.
- Emission accounts.
- Combined physical and monetary accounts

B. Informing water policies

- UN-Water and WWDR indicators
- Informing the 3 Ts of water supply and sanitation: "Tariffs, Taxes and Transfers" (GLAAS report).
- Combined economic and physical indicators
- Developing comparable time series. Short and long term trends.

Chapter 3 THE DATA COLLECTION AND COMPILATION PROCESSES

This chapter is based on the list of data items of the IRWS. The different sources of data will be discussed as well as the particularities of the data corresponding to different aspects of the natural and economic water cycles. The importance of prioritizing the data items according to each country's water policies will be highlighted.

The methodologies to collect data will be discussed, including the use of water monitoring networks, surveys, censuses and administrative records. How and when estimates should be used is another topic of this chapter. The chapter will also address the issues of data editing, imputation and validation. The chapter will also include a description of any relevant adjustments that are needed for the water accounts. The explanations will be illustrated with several examples and exercises.

A. Physical data items of stocks and flows within the environment, subheadings A to D in the IRWS

- Surface water stocks (data items A)
- Groundwater stocks (data items A)
- Precipitation and Evapotranspiration (data items B and C.2)
- Inflows and outflows to/from other territories and the sea (data items B.2 and C.2)
- Other flows within the environment (data items D)

B. **Physical data items of flows to/from and within the economy, subheadings E to I in the IRWS**

- Abstractions of water (data items E)
- Water supplied and received by economic units (data items F and G)
- Returns of water (data items H)
- Losses (data items I)

C. **Physical data items related with polluting emissions, subheadings F to K in the IRWS**

- Wastewater supplied and received (data items F and G)
- Wastewater returns (data items H)
- Waterborne emissions (data items J and K)

D. Monetary data items, subheadings L to R in the IRWS

- Value and costs of water and sewerage services (data items L)
- Taxes, subsidies and investment grants (data items M and N)
- Assets, investments and depreciation (data items O to Q)
- Tariffs and charges for water supply and sewerage services (data items R)

E. Social demographic data items, subheadings S and T in the IRWS

- Main source of drinking water used by populations (MDG, data items S)
- Main type of toilet and sewage disposal used by populations (MDG, data items T)

F. Supplementary data items, annex II of the IRWS

- Supplementary physical data items of stocks and flows within the environment
- Supplementary physical data items of flows to and within the economy
- Supplementary monetary data items
- Other supporting data items

Chapter 4 DISSEMINATION OF THE ACCOUNTS AND STATISTICS TO DIFFERENT TARGET AUDIENCES

Different ways to present the information to different audiences will be discussed. The use of tables, diagrams, graphs, and maps will be presented in this chapter. How to address different audiences with different types of messages as well as the transformation of data into indicators will be topics discussed in this chapter. The chapter will provide examples of country practices in the dissemination of water accounts and statistics, as well as the compilation of various types of indicators for policy design and evaluation.

A. Developing publications to address the different audiences

- Disseminating the pyramid of information through several channels.
- Information for policy makers.
- Information for researchers.
- Information for the general public.

B. Indicators to inform the public and policy makers

- Commonly used indicators for each of the policy quadrants.
- Common data that is usually the basis for the most common indicators.

C. Examples of existing dissemination processes

- Dissemination of water accounts in Australia. Dissemination of water accounts in the Netherlands. Pilot publications in Mexico and Colombia. Yearly statistics publication in Mexico.

Chapter 5 CLOSING THE LOOP AND MAINTAINING THE PROCESS

This chapter will focus on the importance of establishing a continuous improvement process in the production of the water accounts and statistics, which involves the constant interaction between users and producers of the information, as well as other stakeholders of the process. The chapter will address the issues of quality assurance in the production of water accounts and statistics. It will also discuss issues regarding the structuring and systematization of information. Several examples of country practices will be presented.

A. **The iterative production process and the continuous improvement cycle**

- The need for continuously iterating the process of data collection, compilation and dissemination. How often the process should be repeated.
- Learning from the process and improving the process in each iteration.

B. Systematization of the production process

- Streamlining data collection and data sharing systems
- Structuring data and protocols to exchange data and metadata

C. **Quality assurance and user-producer feedback**

- Quality assurance standards.
- User-producer groups. Better informing water accounts and statistics customers.
- Examples of country practices.