Guidelines for the Compilation of
Water Accounts and Statistics

(Draft Detailed Outline)

Overview of the Organization of the Document

The Guidelines are organized in five chapters. **Chapter 1** explains why the implementation of the System of Environmental-Economic Accounts (SEEA) provides a sound basis for monitoring water policies. **Chapter 2** shows how water accounts respond to the water policy needs. **Chapter 3** provides practical guidance on how to compile the data needed from the different sources, and how it is integrated to create a complete and consistent picture. **Chapter 4** discusses the derivation of indicators and other ways of making the information produced accessible to the different users. Finally, **Chapter 5** focuses 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 discusses the different water policy needs and how official statistics respond to them by the integration of sectoral statistics into a comprehensive framework, the System of Environmental-Economic Accounts (SEEA), which allows consistency checks, and produces comparable information. The SEEA-Water, a subsystem of the SEEA, and the International Recommendations for Water Statistics (IRWS) are presented as additional tools to specifically respond to the needs of water management and policy design and evaluation.

The chapter shows how the information can be organized using a structure of quadrants covering the wide variety of policy objectives, and how these quadrants translate into official statistics processes.

I. Water policy needs of information and official statistics
- Official statistics in support of water policy needs of information.
- The experience with the System of National Accounts.
- An agreed system for the environment.

II. Water policy information and its organization in quadrants
- Quadrant I, improving access to drinking water and sanitation services.
- Quadrant II, managing water supply and demand.
- Quadrant III, improving the condition and services provided by water related ecosystems.
- Quadrant IV, adapting to extreme events
- Water governance related information.

III. Incorporating water monitoring in National Statistics Systems (NSS)
- Institutional arrangements for an integrated monitoring system for water.
- National Strategy for the Development of Statistics
- Examples in countries

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

This chapter provides and overview of the principles and main components of the accounts in the System of Environmental-Economic Accounts (SEEA) as they are applied to water in order to develop a monitoring system of comprehensive, consistent and comparable policy relevant information.   The chapter also gives an overview of the standards that are used to classify economic activities and products.

The concepts are explained through practical examples, which illustrate the use of the standard tables for checking data consistency, as well as providing the basis for planning the data collection processes.

I.   Structure of water accounts and statistics
- Supply and use tables in physical and monetary terms
- Emission accounts
- Asset accounts
- Sequence of economic accounts
- Functional account
- Employment, demographic and social information tables

II. International classification standards
- Industry (ISIC) and product (CPC) classifications
- Industrial activities and products most relevant for water accounts

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 are 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 are highlighted.

The methodologies to collect data are 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 also addresses the issues of data editing, imputation and validation. The chapter also includes a description of any relevant adjustments that are needed for the water accounts. The explanations are illustrated with several examples and exercises.

I. Physical data items of stocks and flows within the environment
- 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)

II. Physical data items of flows to/from and within the economy
- 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)

III. Physical data items related with polluting releases and emissions
- Wastewater supplied and received (data items F and G)
- Wastewater returns (data items H)
- Waterborne releases and emissions (data items J and K)

IV. Monetary data items
- 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)

V. Social demographic data items
- 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)

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

This chapter discusses how the information compiled in the accounts is organized and presented to the different audiences. It shows how different types of indicators can be calculated from the accounts combining monetary and physical information.

The chapter also presents the sequence of accounts as a means of calculating different balances useful to derive indicators, as well as for presenting the information.

I. Information and indicators for different audiences
- The information pyramid

- Indicators for each of the policy quadrants
- Core water tables

II. Sequence of accounts to derive monetary balances and indicators
- The sequence of accounts for water utilities
- Interpretation of the accounts for water utilities
- Scenarios of "tariffs" and changes in net worth
- Types of indicators derived from the sequence of accounts

III. Sequence of accounts to derive water flow balances and indicators
- Sequence of water flows and tables
- Types of indicators derived from the sequence of water flows
- Minimum set of data to be collected about the water cycle
- Emissions
- Additional indicators derived from emission accounts
- Minimum set of data to be collected about emissions

Chapter 5   INCORPORATING WATER ACCOUNTS AND STATISTICS TO THE REGULAR STATISTICAL PRODUCTION PROCESS

This chapter discusses the different aspects to consider for the implementation of a process of regular production of water accounts and statistics. The chapter addresses the issues related with the establishment of a long term program of implementation of the accounts within the National Statistics System (NSS), involving several steps that include strategic planning; coordination, monitoring and reporting; and improving statistical systems.

Different tools to achieve the implementation will be discussed in this chapter, such as the National Strategies for the Development of Statistics (NSDS), which is the most widely used tool for statistical planning in developing countries, but its concepts are applicable to developing and developed countries.

I. **Strategic planning**
- Assessment of the current status of the NSS in the production of water accounts and statistics
- Institutional arrangements
- Developing the statement of strategy
- Action plan
- Monitoring and evaluation

II. Implementation process
- Action plan
- Monitoring and evaluation

III. Tools for implementation
- National Strategies for the Development of Statistics (NSDS)
- National Quality Assurance Frameworks (NQAF)
- Statistical Data and Metadata Exchange (SDMX)