



The Hybrid Accounts of SEEA W

International Seminar on Environmental Accounting

United Nations Statistics Division

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Outline

- What are the hybrid accounts
- What do hybrid accounts measure
- Why compile them?
- The hybrid account and accounts for expenditure and financing
- Additional accounts for expenditure and financing



What do hybrid accounts measure?

- Physical flows of
 - Water and emissions (pollutants)
- Monetary flows of
 - Water and sewerage services
- Value of fixed assets (and fixed capital formation) for
 - Water supply and sewerage industries



The seven hybrid tables

- Hybrid supply table
- Hybrid use table
- Hybrid account for supply and use of water
- Hybrid account for water supply and sewerage for own use
- Government accounts for water-related collective consumption services
- National expenditure accounts for wastewater management
- Financing accounts for wastewater management



Why compile hybrid accounts for water?

To identify

- The costs associated with production of water-related products and income generated by the production
- The investment in water-related infrastructure
- Costs of maintaining the infrastructure
- Fees paid by users for water-related services and subsidies received
- Help to design policies of cost-recovery and efficient water allocation



The hybrid accounts

- Combine the physical and monetary supply and use tables for water in a single table for deriving hydrologic-economic indicators such as:
 - Water intensity/water productivity
 - To what extent is the cost recovered through fees and permits/water rights
 - Who is paying for what or receives transfers/subsidies?

Hybrid account for supply and use of water



	Intermediate consumption of i			
	1	2-33, 41-43	35	
			Total	of which: Hydro
1. Total output and supply (Monetary units)				
<i>of which :</i>				
1.a Natural water (CPC 1800)				
1.b Sewerage services (CPC 941)				
2. Total intermediate consumption and use (Monetary units)				
<i>of which :</i>				
2.a Natural water (CPC 1800)				
2.b Sewerage services (CPC 941)				
3. Total value added (gross) (=1-2) (Monetary units)				
4. Gross fixed capital formation (Monetary units)				
<i>of which :</i>				
4.a For water supply				
4.b For water sanitation				
5. Closing stocks of fixed assets for water supply (Monetary units)				
6. Closing stocks of fixed assets for sanitation (Monetary units)				
7. Total use of water (Physical units)				
7.a Total Abstraction				
<i>of which: 7. a.1- Abstraction for own use</i>				
7.b Use of water received from other economic units				
8. Total supply of water (Physical units)				
8.a Supply of water to other economic units				
<i>of which: 8. a.1- Wastewater to sewerage</i>				
8.b Total returns				
9. Total (gross) emissions (Physical units)				
Pollutant 1				
Pollutant 2				
Pollutantn				



Data sources

- National accounts
- Businesses reports
 - Annual reports, environmental reports, websites
- Government
 - Agency reporting and websites
 - Administrative data bases (especially tax)
- Surveys
 - Business surveys
 - Agricultural surveys
 - Household surveys
- Estimation based on case studies, other research and assumptions



Additional monetary accounts

- National expenditure accounts
- Financing accounts
- Environmental protection expenditure and resource management accounts

These are usually compiled after work on the Physical Supply-Use, Emission, Asset and Hybrid Accounts.



Government accounts for water-related activities

- Government expenditure on collective consumption services on water related activities are classified by Classifications of Functions of Government – COFOG
- It includes the following categories:
 - Wastewater management
 - Soil and groundwater protection
 - Environmental protection n.e. c.
 - Water supply



Government accounts for water-related activities

monetary units

	Government (ISIC 84) (by COFOG categories)			
	05.2 Wastewater management	05.3 (part) Soil and groundwater protection	05.6 Environmental protection n.e.c.	06.3 Water supply
1. Total output				
2. Intermediate consumption				
3. Value added (gross) (= 1-2)				



National expenditure accounts

- Aim at recording the expenditure of resident units and financed by resident units for environmental protection



Environmental Protection Expenditure related to water

- CEPA-2000 related to water include:
 - Wastewater management
 - Activities of sewerage, administration, use of specific products (e.g septic tanks) and specific transfers
 - Water management and exploitation
 - Activities for the collection, treatment and supply of water, legislation, administration and specific transfers



Financing accounts – why?

- Who is financing the water supply and sanitation infrastructure and current costs?
- How much is financed by national expenditure and how much from abroad?
- Which institutional sector (government, corporations, ROW) is paying for what?



International Recommendations of Water Statistics (IRWS)

- IRWS contains
 - A list of recommended data items/variables for a water statistics programme and filling in the SEEAW standard tables (Annex 1)
 - Link between standard tables and list of variables (Annex 3)
 - Definition of data items and strategy for their data collection