Wealth Accounting and Valuation of Ecosystem Services

WAVES

Water accounts mini-workshop

Objectives

The main objective of this session is to provide an introductory technical training for water accounting. The specific objectives are:

- Describe policy applications of water accounts and how they address major policy issues using some country examples from Europe and Latin America.
- Explain the common structure of the water accounts and its relation to policy issues
- Develop an exercise on water accounting and discuss the key messages/learnings

Facilitators

(SS) Sjoerd Schenau, CBS
(JP) Juan-Pablo Castaneda, ICEFI

Program

09:00 - 10:30 (90 min.)

Activity	Facilitator	Description	Time (min.)
Policy applications in The Netherlands	SS	Each speaker will present how water accounts currently address policy issues and the potential to address other issues	10
Policy applications in Guatemala	JP		10
Structure of the accounts	SS	The speaker will present how the accounts are structured to address policy issues and how to understand the main indicators	10
Explain the exercise	JP	The speaker will explain the proposed exercise	5
Develop the exercise	JP, SS	Participants are divided in two groups and the two facilitators rotate twice.	40
Group presentations	Group speakers, SS	Each group will nominate a speaker and present their conclusions in 5 minutes. SS will give the final comments.	15
		Total time	**90**

Exercise

Background

The following exercise provides an example of how one part of the water accounts can be compiled, namely the physical flows. The purpose is for the participants to get a first contact to the rationale of compiling the water accounting framework and using it for analysis. The idea is to show how data from different sources is integrated and how this integrated information can be used to derive indicators to address water related policy issues.

Participants should be aware that the framework used in this exercise and the way it is set up corresponds to an adaptation or abridged version of the SEEA-Water central framework supply and use tables, thus addressing only a number of questions. There are other accounts within the SEEA-Water that address other relevant questions for water management.

Instructions

The following instructions are related to data from a hypothetical country. Water resources in this country are under pressure from an ever-increasing demand from economic activities and household consumption, loss and degradation of freshwater ecosystems and global climate change that affects water supply and demand. These circumstances are imposing a heavy burden on the country, specially a very high social cost.

Under these growing pressures, water management has become increasingly difficult. Some critical policy questions are:

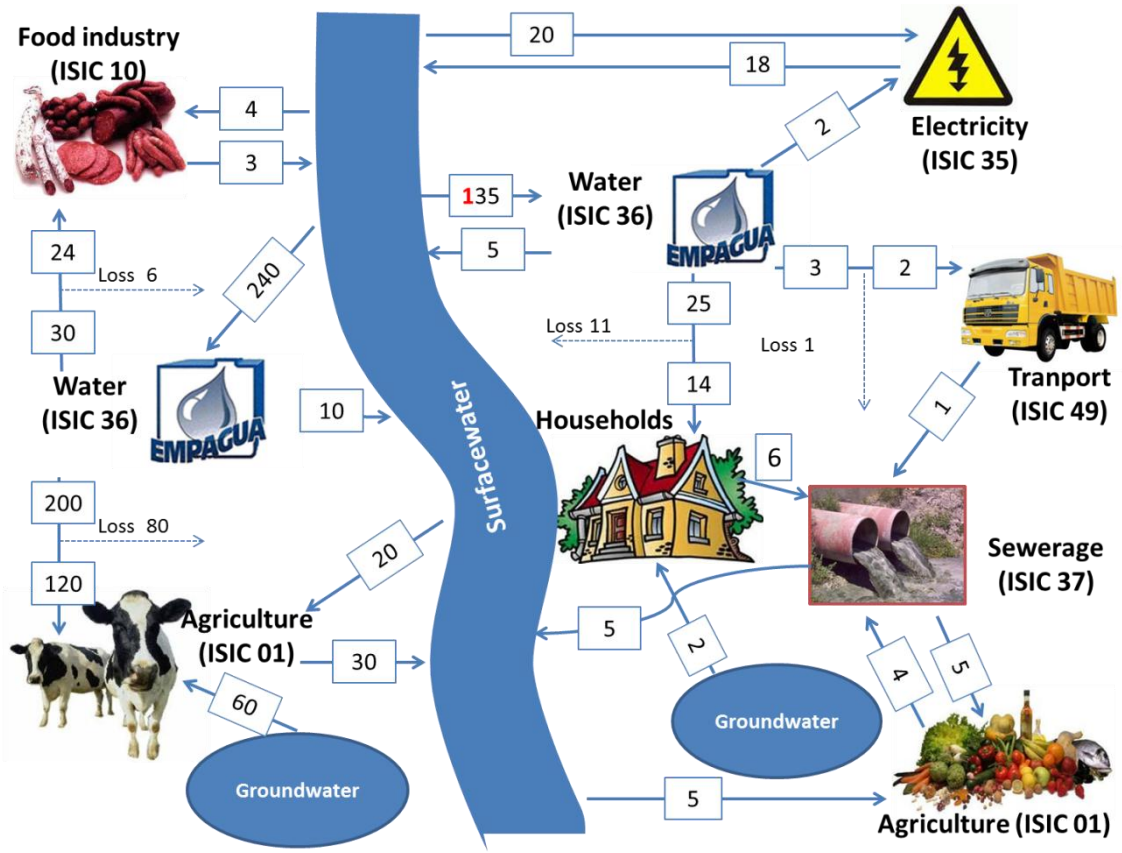
- What are the sources of pressure on water resources at the sectoral level?
- How is water allocated to the different users?
- What are the opportunities to improve water productivity?
- Are current trends of water use sustainable?

Participants should organize in groups and try to fill the Supply and Use Table (SUT) with the data provided below. The groups should discuss the results and derive conclusions. A five minute presentation is expected from the selected speaker.

Sectoral country data in the following table are organized using the International Standard Industrial Classification for Economic Activities (ISIC). Data are for the year 2010 as was provided by the national accounts.

Economic Activity (by ISIC)	Value added. GDP (million dollars)	Output (million tonnes)
01 Agriculture	26	86
10 Food industry	62	15
35 Electricity	12	-
36 Water supply	3	-
37 Sewerage	1	-
49 Transport	19	-
Total for the economy	**123**	**101**

There is not a single institution in the country that compiles water uses and users data; however the Institute of Statistics now has data on water flows for 2010. Total Renewable Water Resources (TRWR) are estimated at 695 million cubic meters. Water flows are shown in the following figure in million cubic meters:



Supply table

		Economic activities (ISIC)							Households	Total
		1 Agriculture	10 Food industry	35 Electricity	36 Water supply	37 Sewerage	49 Transport	Total		
Flows within the economy	S1 Supply of water to other economic units:									
	of which: Reused water									
	Wastewater									
Flows to the environment	S2 Total Returns (= d.1+d.2)									
	d.1 To water resources:									
	Surface water									
	Groundwater									
	d.2 To other sources (e.g. sea water)									
S Total supply of water (= S1+S2)										
C Water consumption (U - S)										

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Use table

		Economic activities (ISIC)							Households	Total
		1 Agriculture	10 Food industry	35 Electricity	36 Water supply	37 Sewerage	49 Transport	Total		
Flows from the environment	U1 Total abstraction (a.1+a.2= b.1+b.2):									
	a.1 Abstraction for own use									
	a.2 Abstraction for distribution									
	b.1 From water resources									
	Surface water									
	Groundwater									
	b.2 From other sources									
	Abstraction from the sea									
Flows within the economy	U2 Use of water from other economic units									
	of which: Wastewater									
U Total water use (U1+U2)										