CONSTRUCTION OF WATER ACCOUNT TABLE

Kohei KOYAMA

Key Words: SEEA, Environmental Accounting, Water Account, Water management, Water Use table, Water Supply table

1. BACKGROUND

In order to achieve the sustainable water resources management, it is first necessary to understand the detailed water flow of human activities. Therefore, this study established the accounting system of water flow covering all over the world for the purpose of describing the water flow.

Table1 A Summary of table U and table V
(table U is (+), table V is (-))

	Sectors		Border	Foreign country
	Activities	Environment		
Products	(+)(-)			
Waste water	(+)(-)			
Reuse water	(+)(-)			
To Environment	(-)	(+)(-)	(-)	(-)
From Environment	(+)		(+)	(+)

2. SYSTEMS FOR WATER ACCOUNTING

Water account table is established by the two kinds of tables, water usage table (U table below) and water generation table (V table blow). This water tables deal with integrated 26 sectors (categories), 16 kinds of products, 5 kinds of solid wastes, 5 kinds of renewable solid wastes, 6 kinds of environmental released goods and 4 kinds of environmental absorption goods.

3. PILOT TABLE TO BE FILLED IN

Filling the cells in the tables we used three ways: citation from countries' statistics value, estimation by unit consumption of water usage, and estimation by account balance. This study estimated using 86 kinds of unit consumptions, 11 account formulas and under the condition of seven constrains. In addition, this study is based on the year of 2000.

4. RESULTS

The result of the study about global water flow is shown in Figure 1. The result shows that agricultural sector uses water resources most as other existing researches has argued. In addition, the study was able to count the water flow in the product.

The estimate of household water consumption by using the unit had value that close to country's statistical value (Table 2).

Table 2 Domestic comparison Statistics with Estimates
(m^3/person・year)

	AQUASTAT	Estimates	Statistics
Germany	70.67	31.56	40.60
Netherland	30.77	31.76	46.70
Denmark	76.78	32.01	53.60
Sweden	122.90	46.87	69.80
Spain	118.27	31.23	53.90
Japan	137.15	90.24	127.08
USA	215.61	155.24	222.58
Australia	183.78	45.16	113.90
Canada	292.17	78.65	122.28
China	32.84	26.21	45.42
United Kingdom	34.65	31.69	54.82

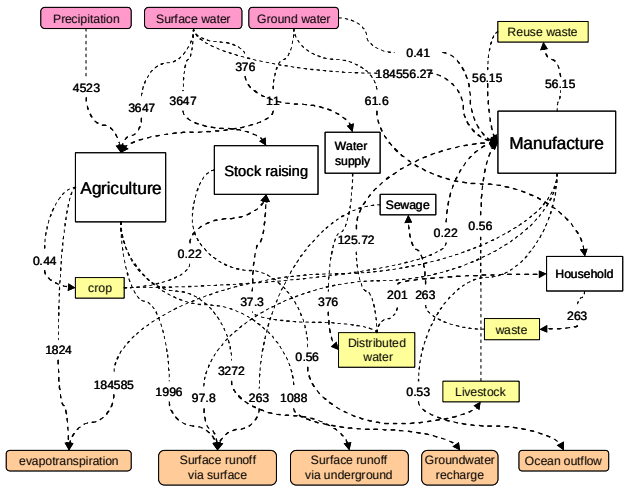

Figure 1 Water flows in the economy and between the economy and the environment, km^3/yr