

Compilation of MRIO based on SEEA

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The introduction of 2008SNA to Japan can influence on the compilation of a wide variety of input-output tables and statistics. After the publication of SEEA-CF, as to the Environmental Satellite Accounts, The Cabinet Office, Government of Japan began to examine and estimate as JSEEA-Water. In System of environmental-Economic Accounting: Applications and Extensions (SEEA-AE), Environmentally Extended Input-Output Tables (EE-IOT) combining orthodox input-output tables in monetary terms with natural inputs and residuals as the notions of SEEA-CF in physical terms are introduced.

As one of the extensions for EE-IOT, the compilation of Multiregional Input-Output (MRIO) tables are strongly interested for the analysis of environmental problems globally spreading. On the other hand, many projects including Asian International Input Output tables (AIIO), OECD Global Input Output tables (GIO), Global Trade Analysis Project (GTAP), A New Environmental Accounting Framework Using Externality Data and Input-Output Tools for Policy Analysis (EXIOBASE), World Input-Output Database (WIOD), Eora MRIO, Global link Input-Output model (GLIO) and so on have been proceeded compiling and making available their datasets.

As to compilation of IOT, United Nations recommended to estimate IOT through the compilation of Supply and Use Tables (SUT) in SNA1993 and SNA2008. SEEA-CF based on SNA2008 also showed the compilation of Physical SUT as global standard corresponding to Monetary SUT in SNA. To address these matters, there are several compilation and estimation of EE-IOT based on Physical SUT according to SEEA-AE and SNA IOT. And we can see trials to describe Environmental Economic Accountings for analyzing interregional and international environmental problems in SEEA1993, SEEA2003 and SEEA-CF. Additionally, there are a number of interregional and international IOTs for environmental analysis in the type of products by products.

However these types of IOTs are just adopting so-called hybrid type of environmental IOT and have not enough been calculating physical flows of natural inputs, products and residuals in Physical SUT and remained the problems of discrepancy between the classification of industries and products. We examine the compilation of MRIO based on the calculation of Physical SUT according to SEEA-CF and SEEA-AE against these backgrounds and situations. And then, we extend this MRIO to EE-IOT and try to estimate for several environmental analysis.