

Constructing a time series of Chinese multi-region input-output tables

Topic: Environmental input-output modeling X

Author: Yafei Wang

Co-Authors: Arne Geschke, Manfred Lenzen

Multi-region input-output (MRIO) tables have been acknowledged as a key tool at the forefront of environmental policy debates. However, several versions of Chinese sub-national multi-region (ChineseMRIO) tables lack harmonization with the aggregated regions and sectors and have less detailed trade information for years 1987, 1997, 2002 and 2007, resulting in limited applications of their use in environmental footprinting and life-cycle assessment, as well as driving forces analyses. A time series of environmentally extended MRIO tables for China's 30 provinces is developed. The innovative series is constructed using an Automated Integration System for Harmonised Accounts (AISHA) tool. First, it is available as a continuous time series of ChineseMRIO tables from 1997 to 2011. Second, it distinguishes 135 commodity sectors in combination with 185 countries in Eora MRIO database. Third, it provides updated information therefore significantly improving timeliness. Fourth, it integrates satellite accounts, including energy use, greenhouse gas emission, water, land use, and material use at the provincial level. These advances will dramatically improve the applications of ChineseMRIO tables for policy-makers and researchers.