Development of environmentally extended I-O tables for CHG emissions in Australia

Topic: Input-Output accounts and statistics 4 Author: Shuo Manson Hao Co-Authors: Andrew Cadogan-Cowper, Gregory Legoff, Kuru Mahadeva, Nathan Chia

Title: Development of environmentally extended I-O tables for CO2 emissions in Australia

Authors: Shuo (Manson) Hao, Gregory Legoff, Kuru Mahadeva and Andrew Cadogan-Cowper

This study reports on attempts to construct a comprehensive environmentally extended IO table for Australia greenhouse gas (GHG) emissions at the industry group level as part of a project aiming to regularly produce GHG emissions accounts according the System of Environmental-Economic Accounting (SEEA). The study reports on the methods used, preliminary results and on some of the practical challenges encountered and that will need to be addressed to ensure regular production of emission accounts at the ABS.

This study builds on past ABS work on energy and greenhouse gas emission accounts 1992-93 to 1997-98. One of the improvements is that the scope of the emissions had been extended from combustion process only to the full GHG emission scope under the IPCC framework including: energy (including stationary energy and transport); industrial processes; solvent and other product use; agriculture; waste; and land use, land use change and forestry (LULUCF). The 2009 National GHG emission inventory data was the starting point for CO2 emissions with the adjustments necessary to align the emission data with the Systems of National Accounts (SNA) and compatible with the IO framework. A standard I-O approach was used to attribute the emission footprints (for both the direct and indirect emissions induced by the production process of commodities) to final demand categories.