

Workshop on Material Flows and Environmental Impacts behind International Trade  
of Japan  
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Invited speech 4:

**Ecological budget UK: a comprehensive regional material flow and ecological footprint account, including embedded emissions**

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In March 2006, the “Ecological Budget UK” project is coming to an end, in which the Stockholm Environment Institute (University of York) have developed a comprehensive and consistent account of Ecological Footprints and material flows in local and regional areas in the United Kingdom.

National Ecological Footprint data by 76 economic sectors were compiled and re-allocated to detailed final demand categories, sub-national areas and socio-economic groups by using generalised input-output analysis for the year 2000. Augmenting the model with detailed consumption expenditure in COICOP classification of 55 different socio-economic groups allows the estimation of Ecological Footprints of household consumption in all 455 British local authorities. This extends the potential for applications of the Ecological Footprint concept and helps to inform scenarios, policies and strategies on sustainable consumption.

A complete account of material supply and demand has also been presented for 84 commodity groups (economic sectors) in all Government Office Regions in the UK.

These accounts are consistent with material flow accounts and physical trade data from the UK national government and EUROSTAT. As for the Ecological Footprint, the calculation of material flows associated with regional household consumption was derived by using detailed regional household expenditure data and input-output analysis. Equally, capital investment was broken down into 39 sub-categories provided by the National Accounts.

Finally, carbon dioxide emissions associated (embedded) with the import of commodities to the UK were estimated for eight different world regions that export to the UK. Emission factors by industry for each world region were estimated by applying multipliers derived from an input-output based approach (Ahmad and Wyckoff, 2003).<sup>1</sup>

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<sup>1</sup> Ahmad, N., Wyckoff, A., 2003. Carbon dioxide emissions embodied in international trade. DSTI/DOC(2003)15, Organisation for Economic Co-operation and Development (OECD)