

The development of commercial local area resource and emissions modelling for the food retail sector

Topic: Sustainable production and consumption II

Author: Peter Treharne Bradley

Meeting near-future UK greenhouse gas (GHG) emissions targets will require all parts of the UK economy to contribute; in particular, significant changes in business practices will be required at the local level, including sustainable procurement. This paper presents a framework model to generate detailed benchmark estimates of GHGs (both on site and supply-chain related) for individual businesses and all businesses of the food retail sector within an area. This model aims to address the following question: What level of GHG are attributable to food retail businesses in Southampton and which types of food retail businesses (and their products) have the highest embodied GHGs? The input-output model makes use of available economic, geographic micro data as well as national environmental and economic accounts to develop estimates for businesses to the geographic level of individual postcodes. Where similar datasets exist in other parts of the world, such models may be applied elsewhere to inform local planning in relation to GHGs, waste and water use. The retail sector however, requires a unique methodological approach compared to other sectors, and this is where the current study innovates methodologically. The paper applies two different accounting perspectives: the production perspective (on site GHGs) and the provision perspective (supply-chain GHGs attributable to purchased inputs of a business or sectors production). The results show up dramatic variation in GHGs for the area, for different food retail businesses, and for products. From a planning and implementation perspective, such data can help inform business actions and help to prioritise choice editing and sustainable procurement by food retail business.