

## **Annex 5C**

### **The carbon imprint of energy**

5C.1 There are different ways in which emissions can be measured, the two most widely recognised are the Kyoto measure and the environmental accounts. The Kyoto measure records emissions on a territorial basis and excludes emissions from international aviation and shipping. The Environmental Accounts measure emissions on a residents basis i.e. consistent with the National Accounts and include emissions from international aviation and shipping.

Please use the web link below to compare changes in CO<sub>2</sub> levels between 1990 and 2002 according to these two measures:

<http://www.statistics.gov.uk/statbase/Expodata/Spreadsheets/D8248.xls>

5C.2 A third measure is the use of a carbon imprint, which relates to emissions that are attributable to the levels of consumption within each country. Here emissions are based on those relating to domestic production, but also include imports, and excludes exports. A report published by the OECD showed that in 1995 UK emissions on a carbon imprint basis were 2.4 per cent of domestic production, reflecting a small UK trade deficit. This report can be accessed from the following link:

[http://www.oecd.org/LongAbstract/0,2546,en\\_2649\\_34361\\_27253616\\_1\\_1\\_1\\_1\\_00.html](http://www.oecd.org/LongAbstract/0,2546,en_2649_34361_27253616_1_1_1_1_00.html)

5C.3 Over the last few years however the UK's trade deficit has continued to widen significantly, with the increasing importation of energy intensive finished manufactured goods, such as road vehicles, office machines, electrical machinery, miscellaneous manufactures and telecommunications equipment. This suggests that emissions may be increasingly being shifted abroad.

5C.4 In 2004, the World Wildlife Fund produced a report investigating the energy footprint of the countries of the world on this basis. It claimed that when emissions after exports were subtracted, and imports of manufactured goods, foodstuffs and raw materials were added, CO<sub>2</sub> emissions were 30 per cent higher in the UK than those reported by the Kyoto measure in 2001.

5C.5 One of the main changes in the trade balance in recent years has been the growth in the UK's imports from countries outside the EU and OECD, particularly China, where the value of imports have increased by 500 per cent between 1994 and 2003. Developing countries like China and India have cheaper labour costs and fewer labour regulations. They are also not signatories to the Kyoto Treaty and therefore don't have international obligations to reduce

their emissions. This suggests that whilst the UK has made significant progress to reducing its carbon emissions according to the Kyoto measure, there has been a significant increase in emissions in some developing countries, which is directly attributable to the consumption of goods and services within the UK.

Use the weblink below to access this information:

<http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=613>