

**Project Title:** 'Energy management in tourism: development of a comprehensive carbon footprint methodology and toolset.'

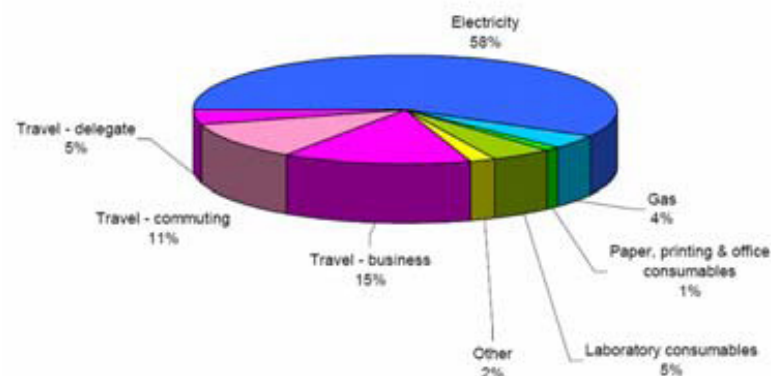
**Principle Investigator:** Dr D Howard (Centre for Hydrology and Ecology)

**Project duration:** 05/11/07 – 04/11/08

**Grant Value:** £34028.57

A practical and easy method for understanding carbon footprints is needed so that organisations can effectively target reductions in energy consumption and carbon emissions in their supply chains. Tourism is a major economic sector in the North West of England (NW), and contains many small businesses with limited resources for carrying out analysis into energy consumption and carbon emissions. An appropriate method for doing this has to be employable by organisations of all sizes. From the small tourism provider requiring a simple, believable, user-friendly tool that provides straight forward output to larger organisations with the requirement and capacity for a more detailed analysis. Local tourism is becoming increasingly important as an economic sector for NW as people become more environmentally aware and therefore less willing to travel abroad.

The project provides a stepping stone towards the development of a tool that will allow members of an important sector of the NW economy to monitor and manage their energy use. It will also help the NW to be at the forefront of essential environmental auditing and impact assessment methodologies. The project has expanded the NW's research capability in the field of energy consumption monitoring and brought researchers from three disciplines together (economics, environmental science and statistics). The application is being developed for all organisations working in the tourist industry in the NW, but will start with demonstrations in Blackpool and Cumbria. It is intended the application will calculate greenhouse gas footprints, which can be partitioned into their component energy sources and highlight major contributory activities. The tool will allow the user to see how their carbon footprint responds to: increasing their expenditure within certain industry sectors (e.g. food whole sellers, transport, construction); changing the nature of their expenditure within each sector.



This project used an existing prototype footprinting model and managed to demonstrate its economic robustness and realism. From this a tool was developed and then tested. The effectiveness of the tool was demonstrated by working with a hotel in the Lake District where the outputs have changed its purchasing strategy. A further £300,000 funding has been obtained (£200,000 ESRC and £100,000 NWDA) to continue developing the model and to create a system for widespread release. Small world consultancy, an environmental consultancy based in Lancaster, acted as consultants on the project and believe the model developed has given them an edge over their competition.