

Quality of life counts 1999

Technical Information

The internet version of 'Quality of life counts 1999' included further background, technical information and details of sources for each indicator as a technical annex where such data was available. The original information is consolidated here for archive purposes.

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A2 Energy efficiency of economy

Primary energy consumption, GDP and the energy ratio, 1950-1998, United Kingdom

Source: Department of Trade and Industry; Office for National Statistics

Reference:

- Digest of United Kingdom Energy Statistics 1999: table 1.12 TSO, 1999 (ISBN 0-11-5154639).
- Economic Trends Annual Supplement 1999: table 1.9 - TSO, 1999 (ISBN 0-11-621135-0)

The energy ratio is calculated by dividing temperature corrected total inland primary energy consumption by Gross Domestic Product (GDP). GDP is the total value of output in the economy before taking account of depreciation. It is expressed at constant 1995 prices, indexed to 1950 = 100.

A3 Energy use per household

Domestic energy consumption, number of households and energy consumption per household, 1970-1998, Great Britain

Source: DTI; Building Research Establishment; DETR

Reference:

- Digest of United Kingdom Energy Statistics 1999: table 1.13 TSO, 1999 (ISBN 0-11-515463-9).
- Projections of households in England to 2021: 1996 based estimates of the numbers of households for regions DETR, 1999 (ISBN 1-85112-326-1)

The Building Research Establishment estimate domestic energy consumption for Great Britain by end use and adjust the total to agree with the Digest of United Kingdom Energy Statistics. The estimates are compiled using a detailed and sophisticated computer model, based on comprehensive information on a number of variables such as household numbers, the housing stock, appliance ownership and insulation levels.

A4 Waste by sector (to be developed)

Source: DETR

Reference:

- Digest of Environmental Statistics 1998: table 7.1(updated) - TSO,1998 (ISBN 0-11-753466-8);

- A way with waste a draft waste strategy for England and Wales, Part 2, Chapter 2 - DETR 1999.

Estimated annual waste arisings by sector, United Kingdom

This chart draws together figures from several different sources, which relate to different dates between 1990 and 1998. Household, commercial, industrial, construction and demolition waste, sewage sludge and dredged spoils are classed as controlled waste under the terms of the Environmental Protection Act 1990.

The figure for agricultural waste relates to wastes from housed livestock only (wet weight). Mining and quarrying waste is based on estimates of the ratio of waste to product extracted. Sewage sludge is wet weight. Construction and demolition waste includes excavated soil and miscellaneous materials as well as hard materials.

Industrial and commercial waste: percentage from each sector, England and Wales

Provisional figures from the Environment Agency's national survey of industrial and commercial waste.

A5 Household waste and recycling

Household waste and recycling, 1983/4-1997/8, England and Wales

Source: DETR, Chartered Institute of Public Finance and Accountancy (CIPFA)

Reference:

- CIPFA Waste Collection Statistics, Waste Disposal Statistics (annual), Municipal Waste Management 1995/96 (updated) - DETR, 1997 (ISBN 85112-064-5)
- Municipal Waste Management 1996/97 and 1997/98 in production.

The data shown in the indicator chart comes from surveys of local authorities, which have responsibility for waste collection and disposal. It is difficult to compare long-term changes because of differences in data sources and definitions and variable response rates to the surveys. The totals for 1983/4, 1991/2 and 1993/4 have been derived by grossing up figures for individual local authorities which are collected and published by CIPFA. Figures for 1995/6 to 1997/8 come from the DETR/National Assembly for Wales' annual municipal waste survey.

The figures cover household waste, which includes regular collection of household bin waste and also waste from local authorities' civic amenity sites, separately collected waste for recycling or composting, and other waste such as bulky household waste, street sweepings and litter collections. This does

not include municipal waste from non-household sources such as municipal parks and gardens and shops and offices, though it is thought that some small amounts of commercial waste are mixed in with household waste and included in the total.

The amounts of household waste recycled and composted include waste collected for recycling from households through kerbside collection schemes, and waste taken for recycling to "bring" sites such as bottle and paper banks, and civic amenity sites. The main materials recycled are paper and card, glass, organic waste for composting, scrap metal/white goods, textiles, cans and plastics. The total shown here does not include recycled building rubble.

A6 Materials recycling

Materials recycled as a percentage of consumption, 1984-1998, United Kingdom

Source: British Steel, World Bureau of Metal Statistics, Iron and Steel Statistics Bureau, Aluminium Federation, Aluminium Packaging Recycling Organisation, Paper Federation of Great Britain, British Plastic Federation, British Glass.

Reference: Digest of Environmental Statistics 1998: tables 7.12-7.21, TSO, 1998 (ISBN 0-11-753466-8), updated.

Materials recycling estimates are compiled from data supplied by relevant materials organisations. The data are published in the DETR Digest of Environmental Statistics, with the exception of the data for plastics, which only became available after the 1998 edition was published.

The recycling rate is calculated as the amount of material recycled (amount collected less exports plus imports) in the UK, expressed as a percentage of UK consumption. It is difficult to make comparisons of recycling performance between different materials, as the various organisations use different definitions and collect and collate the data in different ways.

A7 Hazardous waste

Special waste arisings, 1986/7-1997/8, United Kingdom

Source: Environment Agency, Scottish Environment Protection Agency, Northern Ireland Environment & Heritage Service

Reference: Digest of Environmental Statistics 1998: table 7.6 (updated) - TSO, 1998 (ISBN 0-11-753466-8).

Data on amounts of hazardous waste are obtained from the consignment notes that accompany and monitor each movement of special waste. Before 1996, special waste was defined by the Control of Pollution (Special Wastes) Regulations 1980 and in England and Wales, the data were collected by the

Waste Regulation Authorities until the transfer of their functions to the Environment Agency. There were difficulties in reconciling actual amounts, particularly where converting to tonnes from the volumetric and other measures used on the consignment notes.

The Special Waste Regulations 1996 extended the definition of special waste to include additional waste streams. The total of special waste is now nearly twice as much as under the previous regulations and a large element of this increase is due to the inclusion of waste oils, which amounted to an additional 1.1 million tonnes in 1997/8. The special waste total for 1997/8 is an estimate.

When the current regulations came into effect on 1 September 1996 it was in the middle of a reporting period and this resulted in difficulties in collecting the full data for the year. It also makes comparison of the total waste for 1996/7 with other years difficult and so it was not possible to include a meaningful figure in the indicator chart. Following the introduction of the 1996 regulations, the Environment Agency developed the Special Waste Tracking System (SWAT) to record the arisings, movement and treatment of special waste and this system will reduce the difficulties in reconciling actual amounts and thus improve the quality of the data.

B1 Rate of inflation

Retail Price Index excluding mortgage interest payments, UK, 1976 to 1999

Source: ONS

Reference: Economic Trends, October 1999: table 3.1 - TSO, 1999 (ISBN 0-11-621132-6)

The definition of the Retail Price Index used excludes mortgage interest payments (called RPIX). The indicator shows the per cent change in RPIX each quarter compared to the same quarter a year ago.

B2 Public sector net borrowing and net debt

Public sector net borrowing and net debt as a percentage of GDP, UK 1970-1998

Source: Office for National Statistics, Bank of England

Reference:

- Economic Trends Annual Supplement 1999: Table 5.5 - TSO (ISBN 0-11-621135-0);
- Bank of England Annual Abstract 1998, Part 1: Table 13.1
- Public sector net borrowing equals surplus on current budget minus net investment.

Net public sector debt is derived from public sector consolidated gross debt by deducting the public sector's holdings of liquid assets. Public sector consolidated gross debt includes central government, local government and public corporations gross debt. More details are given in Bank of England Annual Abstract 1998, Part 1: Explanatory Notes

B3 Labour productivity

GDP per worker and per hour worked in the UK, USA, France, Germany, Canada and Japan, 1997

Source: DTI

Reference:

- Our Competitive Future: Building the Knowledge Driven Economy : Chart 3.11 TSO, 1998 (ISBN 0-10-141762-4);
- Our Competitive Future: UK Competitiveness Indicators 1999, TSO, 1999.

Labour productivity expressed as GDP per worker and per hour worked UK (= 100) is compared with five other countries Canada, France, Germany, Japan and the US. Calculations have been made based on the methodology given in Economic Trends No 530, January 1998 article on International Comparisons of Productivity and Wages, E M Harley & J Owen. (ISBN 0-11-620975-5).

B4 UK imports, exports and trade balance

UK imports, exports and trade balance in constant price terms, 1970 -1998

Source: Office for National Statistics, Department of Trade and Industry

Reference: Quarterly United Kingdom National Accounts, First Release - TSO: table H

Current figures for UK imports and exports have been converted to constant 1995 prices using volume indices.

B5 Social investment as a per cent of GDP

Investment in social assets such as railways, buses, hospitals, schools, water and sewage as a percent of GDP, UK, 1970-1992

Source: Office for National Statistics

Reference: United Kingdom National Accounts 1997: tables 13.2, 13.8 TSO (ISBN 0-11-620899-6)

Estimates of social investment, part of Gross Fixed Capital Formation (GFCF), are based on the 1979 European System of Account (ESA79), since estimates are not yet available on new ESA 95 definitions. GDP is Gross Domestic Product at market prices, based on ESA 95.

Social investment is defined to cover investment in the following asset categories: water, sewage and refuse disposal, rail transport, buses and coaches, roads, education, health and social work.

Firm estimates of social investment are not available for 1993 and following years. Investments by asset type have become much more difficult to estimate as a result of the Private Finance Initiative, the privatisation of industries such as rail, buses, water and sewerage and as a result of mixed investments by large companies. Data collection systems are being improved so that more accurate information on investment by asset type will be available in future.

C1 Sixteen year olds with no qualifications

Percentage of 16 year olds achieving no GCSE passes, 1988/9 to 1998/9, in England

Source: DfEE

Reference: Statistics of Education, Public Examinations, GCSE/GNVQ and GCE/AGNVQ in England 1998. Published by The Stationery Office. (ISBN 0-11-271068-9)

The indicator is defined in terms of the percentage of '16 year olds' (ie pupils aged 15 at the start the academic year) achieving no GCSE passes at grade G or better. In more detail, percentages from 1988/89 to 1990/91 are taken from the School Examinations Survey, and are based on pupils in all schools except special schools. Percentages from 1991/92 to 1998/99 are taken from the database on School Performance Tables, and are based on pupils in all schools including special schools. Percentages from 1996/97 include GNVQ equivalencies.

C2 Adult literacy/numeracy

Adult prose, document and quantitative literacy levels in 1996, in the United Kingdom. Percentage of those at the lower prose literacy levels who 'often' or 'sometimes' required help with different tasks.

Source: ONS, British Adult Literacy Survey.

Reference: Adult Literacy in Britain; Summary of key findings. Carey S, Low S, and Hansbro J. (Full report: Adult Literacy in Britain, TSO, (ISBN 0-11-620943-7).

The British Adult Literacy Survey was carried out in 1996, and it forms part of an international programme of surveys known as the International Adult Literacy Survey (IALS). The survey is the first literacy survey to be carried out in Britain on a national random probability sample of adults aged 16-65 using an internationally agreed measurement instrument and survey implementation protocols which covered, among other things, interviewer instructions and scoring procedures. Data in the summary and report are given for Great Britain. ONS were able to provide figures for the UK, which have been used in the chart for this indicator.

In IALS, literacy is not defined as something that people either have or do not have, but rather as a broad range of skills required in a varied range of contexts. It is defined as:

"Using printed and written information to function in society, to achieve one's goals and to develop one's knowledge and potential."

Three dimensions of literacy skill are measured:

- *Prose literacy*: the knowledge and skills required to understand and use information from texts such as passages of fiction and newspaper articles.
- *Document literacy*: the knowledge and skills required to locate and use information contained in various formats such as timetables, graphs, charts and forms.
- *Quantitative literacy*: the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as calculating savings from a sale advertisement or working out the interest required to achieve a desired return on an investment.

Performance on each of these dimensions was grouped into five literacy levels; Level 1 represents the lowest ability range and Level 5 the highest. Because of the small proportion of people at the highest level, Level 5, data were presented for Levels 4 and 5 combined.

C3 Learning participation

Percentage of those aged 16-69, no longer in full-time education, who did no learning in the previous three years (or since leaving full-time education, if that was more recent); 1997, England and Wales

Source: DfEE, National Adult Learning Survey

Reference: National Adult Learning Survey 1997, Sarah Beinart and Patten Smith. Published 1998 by DfEE, Research Report 49, available free of charge from DfEE Publications. (ISBN 0-85522-720-6)

The National Adult Learning Survey (NALS) involved 5,653 interviews undertaken with a representative sample of adults aged 16-69 in England and Wales in Spring 1997. The definition of learning used included all types of taught, classroom-based learning and non-taught learning of a deliberate nature, including self study. Both vocational and non-vocational learning are included regardless of whether they lead to qualifications. The estimated confidence interval for the learning participation measure is 1.4 per cent.

C4 Businesses recognised as Investors in People

Numbers of businesses recognised as Investors in People, 1993-1999, in the United Kingdom

Source: Investors in People UK

Reference: Further information is available from Investors in People UK (Website address: <http://www.iipuk.co.uk> or telephone 020 7467 1903)

Investors in People is the National Standard which sets a level of good practice for improving an organisation's performance through its people. It

helps to improve business performance by linking the training and development of employees to an organisation's business objectives.

C5 Proportion of people of working age in workless households

The proportion of people of working age living in households where no-one works, UK, 1990-1998

Source: Office for National Statistics

Reference: Labour Force Survey (LFS)

The definition of working age: men aged between 16 to 64 and women aged 16 to 59.

The proportion of working age people living in households where no one works, in the spring quarter each year from the LFS. Trends are influenced by the increase in the proportion of single adult households. Longer term time series based on Households Below Average Income 1970-1996/97, DSS 1998, using slightly different definitions, show that the proportion of adults in workless households increased between 1979 and 1990 from 7 per cent to 11 per cent.

C6 Proportion of people of working age out of work for two years or more

Percentage of working age people out of work for two years or more, UK, 1984-1999

Source: Office for National Statistics

Reference: Labour Force Survey

The definition of working age: men aged between 16 to 64 and women aged 16 to 59. A person out of work for two years or more is defined in LFS as a person who has worked in the past and who left their last job two years ago or more. This includes the unemployed, based on International Labour Organisation (ILO) definitions and also other people who are inactive in the labour market such as students, carers and mothers of young children, providing they meet the above LFS definition.

C7 Proportion of lone parents and disabled people who are economically active

Proportion of lone parents and disabled people who are economically active, GB 1984-1999

Source: Office for National Statistics

Reference: Labour Force Survey

Economically active people are those either in employment, or unemployed but seeking work according to International Labour Organisation (ILO) definitions.

LFS disability questions were changed in Spring 1997 to take account of a new definition of disability (i.e. the Disability Discrimination Act (DDA) definition: disability which has a substantial adverse impact on day-to-day activities) to reflect the provisions of the Disability Discrimination Act 1995. This means that activity rates for people with disabilities up to 1996 are not comparable with the rates for 1997 onwards. Further details are given in *Labour Market Trends*, December 1997, pp 494-495.

C8 People in employment working long hours

Percentage of people in employment working over 45, 50 and 60 hours per week, UK 1984-1999

Source: Office for National Statistics

Reference: Labour Force Survey Historical Supplement, 1999: table 24a.

The information is based on what people consider to be their usual total weekly hours including paid and unpaid overtime, but excluding meal breaks. The figures are spring estimates each year, from the Labour Force Survey.

C10 Work fatalities and injury rates; working days lost through illness

Major fatality and injury rates for workers, GB, 1986/7-1998/9. Some information is also given about work related illness in 1995

Source: Health and Safety Executive (HSE), Office for National Statistics

Reference: Health and Safety Statistics - annual reports published by the Health and Safety Commission. Self-reported work-related illness in 1995: Results from a household survey: HSE Books, 1998, Table 86 (ISBN 0-7176-1509-X)

Statistics are compiled from reports made to HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). Injuries are reported for a 12-month period starting on 1 April.

The injury rates are for all workers - employees as well as the self-employed. The rates for 1996/7 and later years are not comparable with earlier rates because of changes in the definition of a major injury (RIDDOR 95 came into force on 1 April 1996 replacing RIDDOR 85 - under RIDDOR 95 the definition of a major injury to a worker is wider). Fatal injury rates are largely unaffected by these changes.

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As part of a continuing programme to develop information on work-related illness, the Health and Safety Executive undertook a survey based on the perceptions of affected individuals. From August 1995 to February 1996 nearly 40,000 subjects in the Labour Force Survey were questioned about their experience of illness and the number of workdays they had lost.

D2 Consumer expenditure

Consumer expenditure per household, UK 1989-1998

Source: Office for National Statistics

Reference: United Kingdom National Accounts, 1999: table 6.5 - TSO, 1999 (ISBN 0-11-621162-8)

Consumers' expenditure is defined as final consumption expenditure in the UK by resident and non-resident households, plus final consumption expenditure outside the UK by UK resident households.

The expenditure categories cover spending on:

Recreation: audio visual, photographic and information processing equipment, other items for recreation and culture, flowers, gardens and pets, recreational and cultural services, newspapers, books and stationary, package holidays, catering and accommodation services, final consumption outside the UK by UK resident households (mainly package holidays abroad). Also includes health medical products, appliances and equipment, out-patient services, hospital services.

Transport and communication: purchase of vehicles, operation of personal transport equipment, transport services, communications.

Housing, water: actual and imputed rentals for housing, maintenance and repair of dwellings, water supply, miscellaneous dwelling services.

Food: food and non-alcoholic beverages

Alcohol, tobacco: alcoholic beverages and tobacco (the figures do not include illegal imports)

Clothing and footwear : clothing, footwear

Home furnishings, appliances: furniture, furnishings, carpets and other floor coverings, household textiles, household appliances, glassware, tableware and household utensils, tools and equipment for house and garden, goods and services for routine household maintenance.

Fuels: electricity, gas and other fuels.

Other goods and services: education services, personal care, social protection, insurance, financial services and other services not elsewhere specified.

D4 Adoption of the international industry standard for environmental management systems (ISO 14001) and the EU Eco-Management and Audit Scheme (EMAS)

Adoption by companies of the international industry standard for environmental management systems (ISO 14001) and the EU Eco-Management and Audit Scheme (EMAS), UK 1995-1998

Source: DETR; EAG Environ, Institute of Environmental Assessment

Reference: based on unpublished data

ISO 14001 and EMAS are recognised environmental management systems which require external auditing. The figures represent the number of certificates issued to UK-based organisations by UK accredited certifiers.

ISO 14001 is the international standard for environmental management systems and was first published in October 1996. It is a management tool which enables an organisation of any size or type to control the environmental impact of its activities, products and services.

EMAS is a voluntary registration scheme established by European law which came into force in July 1993. The scheme has been open for registrations since April 1995. EMAS has been designed to provide recognition for individual industrial sites which have established a programme of positive action to protect their environment and seek to continuously improve their performance. To register for EMAS sites are required to implement an environmental management system and produce an independently validated public statement about their environmental performance.

D5 Corporate environmental engagement

FTSE 100 companies reporting on corporate environmental engagement in 10 aspects of their businesses, UK 1996-1998

Source: DETR; Business in the Environment (BiE)

Reference: Index of Corporate Environmental Engagement - Survey of FTSE 100 Companies. BiE

Companies were asked to report on environmental engagement in 10 areas covering: environmental management systems, board member with specific environmental responsibility, written corporate policy statement, published environmental objectives, environmental targets, internal environmental audit process, supplier programme, employee environmental programme, environmental stewardship of products processes and services, regular environmental communication with stakeholders. Five key activities covering environmental objectives, environmental targets, environmental audits,

employee responsibility for environmental programmes, and environmental communication with stakeholders are shown in this indicator.

D7 Household water use and peak demand

Household water consumption per head and peak and average demand for public water supply, 1992-1997, England and Wales

Source: Ofwat; Environment Agency: National Water Demand Management Centre

Reference:

- Household water use: 1998-99 Report on leakage and water efficiency Ofwat, 1999 (ISBN 1-874234-59-0);
- Peak and average demand: unpublished.

The amount of water used by households is derived from the annual water company returns to Ofwat and expressed on a per capita basis and excluding supply pipe leakage. The average demand for water is the average daily demand for water during an average week in the year. The peak demand for water is the average daily demand for water during the peak week in the year.

D8 Thermal efficiency of housing stock

Percentage of potential households with various insulation methods, 1987-1998, Great Britain

Source: Building Research Establishment (BRE)

Reference: Domestic Energy Fact File: chapter 3 - BRE, March 1998 (CR104/98)

Percentage of potential households refers to those households for which a particular measure is feasible, e.g. for cavity wall insulation the percentage is based only on those households that have cavity walls. Full insulation is defined as a property with at least 4 inches of loft insulation (where there is a loft) and insulated cavity walls (where there is a cavity wall) and at least 80 per cent of the windows double-glazed. No insulation is defined as a property with no loft insulation (if there is a loft) and no cavity insulation (if there is a cavity wall) and no double-glazing.

D9 Primary aggregates per unit of construction value

Primary aggregates output and value of construction GB: 1972 - 1998

Source: DETR

Reference: Housing and Construction Statistics: 1988 1998 (ISBN 1-85112-350-4)

Primary aggregate covers the amount of crushed rock and sand & gravel extracted from quarries in Great Britain together with the amount of sand & gravel dredged from the sea-bed and landed in Great Britain. This equates approximately to the amount of primary aggregate used within Great Britain since international trade is relatively small. The reference above gives the figures for a run of years with figures prior to 1988 being included in earlier editions of the annual publication. Figures for a particular year are published in more detail in Business Monitor PA 1007: *Mineral Extraction in Great Britain* (ISSN 1461 8117).

The value of construction is provided by construction firms and some public sector bodies within Great Britain and includes an estimate of output by small firms and self-employed workers. The figures have been deflated to 1995 prices but those earlier than 1988 have only be published at 1980 prices for the period 1972 to 1976, 1985 prices from 1977 to 1982 and 1990 prices from 1983 to 1987. Furthermore some of the earlier data was revised during the re-basing exercises.

D10 Construction and demolition waste going to landfill

Inactive waste going to landfill, 1997-1999, United Kingdom

Source: Landfill tax returns, HM Customs and Excise

The indicator chart is based on monthly figures for amounts of waste attracting the lower (currently £2 per tonne) rate of landfill tax, payable by operators of landfill sites for inactive waste. Amounts of inactive industrial waste from identified industrial companies, amounting to about 5 million tonnes per year, have been excluded from the figures, but the reported figures may include some further unidentified inactive industrial waste.

D11 Energy efficiency of new appliances

Relative electricity consumption of new cold appliances, 1989-1998, Great Britain

Source: Environmental Change Unit, University of Oxford

Reference: DECADE 2MtC: table 2.2 Environmental Change Unit, 1997 (ISBN 1-87-437019-2)

The average consumption in kWh of new cold appliances is calculated by a standard test procedure. Using a representative sample of showrooms, consumption figures are weighted by the sales of each model to be representative of Great Britain as a whole. Data are more reliable since the mandatory introduction of energy labelling in 1995.

D12 Pesticide residues in food

Percentage of food samples exceeding the Maximum Residue Level (MRL) for pesticides, and the number of MRLs, UK 1989-1998

Source: Ministry of Agriculture Fisheries and Food

Reference: Annual Reports of the Working Party on Pesticide Residues 1989-1997

The information is derived from a comprehensive monitoring programme of pesticide residues in foodstuffs to assess whether the Maximum Residue levels (MRLs) set by the EU are being exceeded.

A Maximum Residue Level (MRL) represents the maximum level of a pesticide expected in a commodity if a pesticide has been applied correctly. MRLs are the legal standard against which residues in food are measured, but they are not safety standards. An MRL is set so that even if a person consumes an extremely large amount of a particular food, the Acceptable Daily Intake (ADI) should not be exceeded. When an MRL is exceeded a risk assessment is carried out to determine whether consumers would be at risk from the residues present. Almost without exception, the level of residues found would not have resulted in the ADI being exceeded.

The monitoring programme covers both domestically-produced and imported food and so provides a broad indicator of consumer exposure to pesticides.

D13 Area under agreement under the Environmentally Sensitive Area and Countryside Stewardship agri-environment schemes

Source: Ministry of Agriculture Fisheries and Food

Reference: Departmental Report 1999 (ISBN 0-10-142292-X)

The figures shown in the graph are for the cumulative area under management agreement in the given year and relate to the areas under management agreement, and not to the designated or eligible areas.

The Environmentally Sensitive Areas (ESA) Scheme was introduced in England and Wales in 1987 and covers 22 areas in England designated for their unique environmental features. Farmers who join and comply with the terms of the scheme are compensated for the cost of managing the land in ways which are less profitable but more sympathetic to the environment.

The Countryside Stewardship Scheme, which applies outside the ESAs, was set up in 1991. It aims to encourage farmers to conserve and enhance some key English landscapes, features and habitats. Payments are made for changes to farming and land management practices, which provide conservation benefits or improved access to and enjoyment of the countryside. The landscape, habitats and features eligible under the Scheme

include chalk and limestone grassland, lowland heath, waterside land, the coast, uplands, historic landscapes and features, old orchards, old meadows and pastures, countryside around towns, field margins on arable land and field boundaries.

D14 Area converted to organic production

Source: Ministry of Agriculture Fisheries and Food (MAFF)

Reference: UK Register of Organic Food Standards (UKROFS)- unpublished

Interest in organic farming has increased dramatically as farmers consider how best to adapt their systems to meet future demands and constraints. The area of land in the UK, which is organic, or in conversion increased by 400 per cent in the period April 1998 to April 1999. MAFF have planned work to evaluate the impact of aid for conversion to organic farming.

D15 Energy efficiency of road passenger travel/

Average fuel consumption of new cars

Fuel consumption for road passenger transport, road passenger miles and fuel consumption per passenger mile, 1970-1998, United Kingdom

Source: Department of Trade and Industry; DETR

Reference: Digest of United Kingdom Energy Statistics 1999: table 1.13 (apportioned) - TSO, 1999 (ISBN 0-11-5154639). Transport Statistics Great Britain 1999 edition: table 9.1 - TSO, 1999 (ISBN 0-11-552163-1)

The estimated road transport consumption of motor spirit and derv in tonnes of oil equivalent has been apportioned to usage by passenger and goods vehicles. Although vehicle performance varies with type of fuel and type of vehicle, no adjustments for these variations have been made in the calculations. Thus the comparisons of petroleum tonnages are made directly with passenger-miles travelled. The data on transport energy consumption is for the UK, whereas the data on passenger and freight traffic published in *Transport Statistics Great Britain* are for Great Britain. Equivalent data back to 1970 for Northern Ireland are not readily available but this should not invalidate the relative trends shown in the charts.

Average fuel consumption of new cars in miles per gallon, 1978-1998, Great Britain

Source: DETR

Reference: Transport Statistics Great Britain 1999 edition: table 2.6 - TSO, 1999 (ISBN 0-11-552163-1)

The figures are of registration-weighted new car fuel consumption for two-wheeled petrol drive vehicles, ie excluding diesels and four wheel drives. Registrations have historically been recorded by engine size, not model. The registration-weighted new car fuel consumption figure is computed by grouping the models in the official new car fuel consumption list into 100cc engine size bands, calculating the average for each band, and then the overall average by applying a weighting based on the proportion of new cars registered in each band. The actual values achieved on the road will reflect many extraneous factors such as cold starts and different driving conditions.

D17 Leisure trips by mode of transport

Journeys per person per year on leisure trips by mode of transport and on car leisure trips by type, 1985/86-1996/98, Great Britain

Source: DETR

Reference: Transport Statistics Great Britain 1999 edition: table 1.3 - TSO, 1999 (ISBN 0-11-552163-1)

The National Travel Survey carried out by DETR records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of journeys (a one-way course of travel for a single main purpose) and the distance travelled. All modes of transport are covered, including walking more than 50 yards. Travel for leisure purposes is included, but journeys which are themselves a form of recreation are excluded, for example yachting or gliding. Walking trips for pleasure or exercise along public highways are included, but walks across open countryside on unsurfaced paths, or in parks, are excluded.

D18 Overseas travel

Air and sea visits by UK and overseas residents, 1983-1998, United Kingdom

Source: Office for National Statistics

Reference: 1998 International Passenger Survey: tables 1.07, 1.08 TSO, 1999 (ISBN 0-11-621262-4)

In the International Passenger Survey a large sample of passengers is interviewed entering and leaving the UK on the principal air and sea routes and via the Channel Tunnel. The data relate to UK residents returning to, and overseas residents leaving, the UK. The unit of measurement is therefore the visit and not the journey. The results are supplemented with estimates of travel between the UK and the Irish Republic provided by the Irish Central Statistics Office.

D20 Freight transport by mode

Tonne kilometres of freight moved by mode, 1970-1998, Great Britain

Source: DETR

Reference: Transport Statistics Great Britain 1999 edition: table 9.3 - TSO, 1999 (ISBN 0-11-552163-1)

These figures include the activity of goods vehicles over 3.5 tonnes gross weight and light goods vehicles up to that weight. The estimates for goods vehicles are derived from the Continuing Survey of Road Goods Transport and ad hoc surveys for light goods vehicles. Pipeline estimates are for oil pipelines only (excluding offshore pipelines). Domestic air freight within the UK is insignificant in volume. Water transport figures before 1972 are not comparable with those from 1972 and have been excluded from the chart, but they are included in the total.

D21 Heavy goods vehicle mileage intensity

Heavy goods vehicle mileage, GDP and their ratio, 1957-1998, Great Britain

Source: DETR; Office for National Statistics

Reference:

- Transport Statistics Great Britain 1999 edition: table 9.4 - TSO, 1999 (ISBN 0-11-552163-1);
- Economic Trends Annual Supplement 1999: table 1.9 - TSO, 1999 (ISBN 0-11-621135-0)

Figures include the activity of goods vehicles over 3.5 tonnes gross weight, derived from road traffic estimates. These vehicles account for about 95 per cent of road freight activity. Gross Domestic Product (GDP) is the total value of output in the economy before taking account of depreciation. It is expressed at constant 1995 prices, indexed to 1980 = 100.

E1 Regional variations in GDP

Regional GDP per head, shown as percentages above or below the UK average; UK 1996

Source: Office for National Statistics (ONS)

Reference: Regional Accounts, ONS; Regional Competitiveness Indicators, Department of Trade and Industry July 1999

The standard international "workplace based" definition has been used to produce gross domestic product (GDP) per head - the income of those working in a region, including commuters, divided by the resident population. This definition is used internationally to make comparisons at sub-national level because information is readily available on this basis. Using this definition, however, has the effect of increasing values in London and decreasing values in the rest of the South East because of commuting.

E2 Index of local deprivation

The index of local deprivation, 1998, England

Source: DETR.

Reference: 1998 Index of Local Deprivation: A Summary of Results. DETR. June 1998.

The index of local deprivation is a measure of relative deprivation at the local authority level on a continuous scale. The darkest areas are the most deprived local authorities and the lightest shaded least deprived authorities.

It has been calculated for all 354 local authority districts as they stood on April 1 1998. Twelve indicators were used to develop the index at the local authority level which spanned the main aspects of deprivation. These indicators are 'total unemployment'; 'male long-term unemployment'; 'income support recipients'; 'non-income support recipients receiving council tax benefit'; 'dependent children of income support recipients'; 'standardised mortality rates (under 75s)'; 'percentage of 15 year olds with no GCSE passes or gaining GCSEs passes at grades D-G only'; 'percentage of 17 year olds no longer in full time education'; 'derelict land'; 'home insurance weightings'; 'households lacking basic amenities plus all households in non-permanent accommodation'; 'overcrowded households'. Further details of the index can be found in '*1998 Index of Local Deprivation: A Summary of Results*'.

E3 Truancies and exclusions from school. Teenage pregnancies

Percentage of pupils excluded from school, England 1994/5-1997/8, teenage pregnancies, England and Wales 1971-1997; includes some information on truancies

Source: Department for Education and Employment (DfEE), Office for National Statistics

Reference:

- Population Trends 97, Autumn 1999: table A - TSO 1999 (ISBN 0-11-621117-2)
- Permanent Exclusions from Schools in England, 1997-98 DfEE Statistical First Release, 16 June 1999.

Teenage conceptions figures are calculated as annual rates of conception to women under 18 per 1000 women aged 15-17. Conception statistics include pregnancies that result in one or more live births, or a legal abortion under the 1967 Act. They do not include miscarriages or illegal abortions.

Truancy figures are taken from DfEE's National Pupil Absence Tables and show the proportion of half days missed per year through unauthorised pupil absence. Information on permanent exclusions from schools are also collected and published regularly by DfEE. Exclusions are expressed as a percentage of the number of full- and part-time pupils of all ages in January of the school year.

E4 New business start-ups net of closures

New business start-ups net of closures by region and by industrial/service sector, UK 1994-1998

Source: Office for National Statistics, Department of Trade and Industry (DTI)

Reference: DTI SME Statistics Unit

The estimates are numbers of enterprises registering and de-registering for VAT and are the best official guide to the pattern of business start ups and closures. They indicate the level of entrepreneurship and health of the business population. The coverage of the figures is complete except for a few VAT exempt sectors and the very smallest one person businesses operating below the threshold for VAT registration (from 1 April 1998 it was an annual turnover of £50,000). The figures are also adjusted to allow for changes to the VAT system. The source of the information is the Inter-Departmental Business Register which contains records of all businesses registered for VAT.

E5 Ethnic minority employment and unemployment

Employment and unemployment rates for the population overall and for ethnic minorities, GB 1984-1999

Source: Office for National Statistics

Reference: Labour Force Survey

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Employment is defined in accordance with International Labour Organisation (ILO) definitions, and includes employees, self-employed, people who do unpaid work in a family business and people on government supported training and employment programmes. The employment rate is the proportion of people of working age (16-59 for women and 16-64 for men) who are in employment. Unemployment is also defined in accordance with ILO definitions.

Ethnic minority groups given in LFS include Black Caribbean, Black African, Other Black, Indian, Pakistani, Bangladeshi, Chinese, Other Asian, other ethnic minority groups and those of mixed origin.

F1 Death rates from cancer, circulatory disease, accidents and suicides

Death rates from cancer, circulatory disease, accidents and suicides per 100,000 population and indexed to 1970= 100, England 1970-1996

Source: Derived from annual mortality data supplied to Department of Health (DH) by Office for National Statistics (ONS)

Reference: Data for England only are not formally published by ONS. Data for England and Wales combined are published in Mortality Statistics Cause, Series DH2: Mortality Registrations, and Registrar General's Annual Reviews for years prior to 1973. International Classification of Diseases, 9th Revision, used for data from 1979 onwards.

Figures represent the number of deaths registered each year from the stated causes of death expressed as the European age standardised rate per 100,000 of the population, expressed as a three year rolling average and indexed to 1970= 100. For cancer and circulatory disease, the rates are for people under 75. For accidents and suicides the rates are for people of all ages. These represent the primary indicators for monitoring the four national "Our Healthier Nation" targets for the year 2010.

Definitions of diseases given in International Classification of Diseases ICD-9 are:

- Cancer: 140 to 209 inclusive
- Circulatory diseases: 390 to 459
- Accidents: E800 to E949
- Suicides: (E950 to E959) + (E980 to E989) less E988.8

F2 Respiratory illness

Percentage of people reporting severe wheezing in the last months, based on combined data from 1995 and 1996 Health Surveys, England

Source: Department of Health

Reference:

- Health Survey for England 1995 - TSO, 1996 (ISBN 0-11-322021-9)
- Health Survey for England 1996 TSO, 1997 (0-11-322091-X)

The indicator shows combined data from the 1995 and 1996 Health Surveys. Severe wheezing is defined as being of sufficient severity to either cause sleep disturbance, interfere with daily activities or cause absence from school/work.

F3 Health inequalities

Life expectancies at birth for men and women in different social classes, England and Wales 1972-76 to 1992-96

Source: Office for National Statistics Longitudinal Study

Reference: Hattersley L. Trends in life expectancy by social class an update. Health Statistics Quarterly 2, 1999, 16-24: Tables 1 and 5

Social class is based on occupation. Examples of occupations in each social class are given below:

- Professional - accountants, engineers, doctors
- Managerial and Technical/Intermediate sales managers, teachers, journalists, nurses
- Skilled Non-Manual- clerks, shop assistants, cashiers
- Skilled Manual carpenters, van drivers, metal working production fitters,
- Partly Skilled security guards, farm workers, store keepers
- Unskilled building labourers, cleaners

F4 NHS hospital waiting lists

Number of people awaiting admission at NHS hospitals, England 1993-1999

Source: Department of Health (DH)

Reference: Hospital Episode Statistics produced by DH

Patients are placed on the inpatient waiting list as soon as a consultant decides that the patient needs inpatient treatment and they stay on the waiting list until they are admitted for treatment or until they are removed from the waiting list, (for example because they no longer need the treatment or have received the treatment privately). Patients are not counted on the waiting list during periods when they are unavailable for treatment.

G1 Passenger travel by mode

Journeys per person per year by main mode of travel, 1985/86-1996/98, Great Britain

Source: DETR

Reference: Transport Statistics Bulletin, National Travel Survey: 1996-98
Update: table 3.2 DETR 1999 (SB(99)21)

The National Travel Survey carried out by DETR records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of journeys (a one-way course of travel for a single main purpose) and the distance travelled. The main mode of a journey is that used for the longest stage of the journey. With stages of equal length the mode of the latest stage is used. All modes of transport are covered, including walking more than 50 yards. Car includes light vans; rail includes surface rail and London Transport Underground, but excludes light rail and tram services; bus includes all local services, but excludes express services, excursions and tours; 'other' includes other types of rail and bus, two-wheeled motor vehicles, motor caravans, taxis, domestic air travel, and other private and public transport.

G2 How children get to school

Mode of travel to school by children aged 5-16 years, 1985/86-1996/98, Great Britain

Source: DETR

Reference: Transport Statistics Bulletin, National Travel Survey: 1996-98
Update: table 4.6 DETR 1999 (SB(99)21)

The National Travel Survey carried out by DETR records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of journeys (a one-way course of travel for a single main purpose) and the distance travelled. The main mode of a journey is that used for the longest stage of the journey. With stages of equal length the mode of the latest stage is used. All modes of transport are covered, including walking more than 50 yards.

G3 Average journey length by purpose

Average journey length by journey purpose, 1985/86-1996/98, Great Britain

Source: DETR

Reference: Transport Statistics Bulletin, National Travel Survey: 1996-98
Update: table 4.1 DETR 1999 (SB(99)21)

The National Travel Survey carried out by DETR records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of journeys (a one-way course of travel for a single main purpose) and the distance travelled. All modes of transport are covered, including walking more than 50 yards. The length of any journey is the distance actually covered as reported by the traveller. The purpose of a journey is normally taken to be the activity at the destination, unless that destination is 'home', in which case the purpose is defined by the origin of the journey. Travel for leisure purposes is included, but journeys which are themselves a form of recreation are excluded, for example yachting or gliding. Walking trips for pleasure or exercise along public highways are included, but walks across open countryside on unsurfaced paths, or in parks, are excluded. Commuting relates to journeys between a usual place of work and home. Education relates to journeys to school or college by students.

G4 Traffic congestion

Percentage of network at 100 per cent stress or more, 1996, 1998 and 2006 projection, England

Source: DETR

Reference: Unpublished

A road link is considered to be at "100 per cent stress" when the peak hour demand on an average day exceeds the road capacity, generally resulting in flow breakdowns with stop start conditions and delays. Built up roads are those with a speed limit of 40 mph or less, irrespective of whether there are buildings or not.

G5 Distance travelled relative to income

Distance travelled in miles per person per year relative to household income band, 1985/86-1996/98, Great Britain

Source: DETR

Reference: Unpublished

The National Travel Survey carried out by DETR records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of journeys (a one-way course of travel for a single main purpose) and the distance travelled. The length of a journey is the distance actually covered as reported by the traveller. All modes of transport are covered, including walking more than 50 yards. Because of price inflation, and because household size and composition is not taken into account in the simple measure of household income, a measure of household affluence, known as real household income equivalent, is used. Households are assigned to one of twenty groups in ascending order of affluence and these are then grouped into five 'quintile' groups for analysis purposes.

H1 Total output of the economy (GDP and GDP per head)

Total output of the UK economy (measured by Gross Domestic Product) and output per head, 1970-1998

Source: Office for National Statistics

Reference:

- Economic Trends Annual Supplement 1999: table 1.9 - TSO, 1999. (ISBN 0-11-621135-0);
- Annual Abstract of Statistics 1999: table 5.1 - TSO, 1999 (ISBN 0-11-621068-0)

Gross Domestic Product (GDP) is the total value of output in the economy before taking account of depreciation. It is expressed at constant 1995 prices, indexed to 1970 = 100. The annual rate of growth over the period 1970 to 1998 is the annual average compound growth rate. Population figures used to calculate GDP per head are UK mid year population estimates.

H2 Total and social investment as a percentage of GDP

Total investment and investment in social assets in areas such as transport, health, education, water and refuse disposal expressed as a percentage of GDP, 1970-1998, UK

Source: Office for National Statistics

Reference:

- United Kingdom National Accounts 1999: table 2.2 - TSO, 1999 (ISBN 0-11-621162-8);
- United Kingdom National Accounts 1997: tables 13.2, 13.8 TSO, (ISBN 0-11-620899-6)

Total investment is defined as Gross Fixed Capital Formation (GFCF) before taking account of changes in inventories and acquisitions less disposals, and is consistent with the European System of Accounts (ESA 95). GDP is Gross Domestic Product at market prices also based on ESA 95.

Social investment is defined to cover investment in the following categories (shown separately in indicator B5): water, sewage and refuse disposal, rail transport, buses and coaches, roads, education, health and social work. Figures for social investment, part of GFCF, are not yet available on the new ESA 95 definitions, so information has been taken based on ESA79.

Firm estimates of social investment are not available for 1993 and following years. Investments by asset type have become much more difficult to estimate as a result of the Private Finance Initiative, the privatisation of industries such as rail, buses, water and sewerage and as a result of mixed

investments by large companies. Data collection systems are being improved so that more accurate information on investment by asset type will be available in future.

H3 Proportion of people of working age who are in work

Proportion of persons (men, women, all persons) in the UK of working age who are in work, May-July each year, 1970 to 1999

Source: ONS

Reference: Labour Force Survey

Employment is defined in accordance with International Labour Organisation (ILO) definitions and includes employees, self-employed, people who do unpaid work in a family business and people on government supported training and employment programmes.

The proportion of people of working age who are in employment is termed the employment rate. For the period up to 1971, working age is defined as 15-59 for women and 15-64 for men; from 1972 onwards, working age is defined as 16-59 for women and 16-64 for men. The information relates to May-July each year and the figures are not seasonally adjusted.

H4 Indicators of success in tackling poverty and social exclusion

Percentage of the elderly in fuel poverty in England, children living in families with persistently low incomes in Great Britain, working age people with no qualifications, and working age people in workless households in the UK, over the period 1990 to 1999 (data availability differs for each series over the period).

Source: ONS

Reference: Labour Force Survey. English House Conditions Survey. British Household Panel Survey. Opportunity for all; tackling poverty and social exclusion; definitions, data and baseline information, DSS 1999.

These indicators form part of a suite of indicators developed to monitor the Government's strategy to tackle poverty and social exclusion Opportunity for all: tackling poverty and social exclusion. TSO, 1999 (ISBN 0-10-144452-4)

Single elderly households experiencing fuel poverty: defined as people 60 or over. Estimates are available every five years from the English House Conditions Survey. The commonly accepted definition of a fuel poor household is a household that needs to spend more than 10 per cent of its income to achieve satisfactory heating (21 degrees C in the living room and 18 degrees C in other occupied rooms).

Working age people with no qualifications: spring quarter estimates each year, from the Labour Force Survey.

Working age people in workless households: the proportion of working age people living in households where no-one works. Longer term trends are influenced by the increase in the proportion of single adult households. Estimates are from the Labour Force Survey.

Children living in families with persistently low incomes: the percentage of children living in households below 60 per cent of the median in at least three out of the four years between 1991-1994. Estimates are from the British Household Panel Survey.

H5 Qualifications at age 19

Percentage of people at age 19 with level 2 qualifications, 1984-1999 (United Kingdom)

Source: DfEE analyses of the Labour Force Survey managed by the Office for National Statistics.

Reference: Published each year in the DfEE annual report and in NACETT's (National Advisory Council for education and Training Targets) annual report.

The data are based on the ONS Labour Force Survey (spring quarters). The results of the highest qualification held by young people aged 19 are analysed to provide figures on the proportion of 19 year olds with a qualification at level 2 or better. Level 2 is defined as 5 or more GCSEs at grade C or above, intermediate level GNVQ, and NVQ level 2 or any other equivalent.

Because the LFS is a sample survey the LFS estimates are subject to sampling error. To improve the reliability of the LFS data the age band 19-21 is used as a proxy for attainment at age 19. The result of using the proxy age band is to improve the confidence intervals for these estimates from ± 2.5 percentage points to ± 1.4 percentage points.

H6 Expected years of healthy life

Life expectancy at birth, and expectancy at birth of years lived in good or fairly good general health, Great Britain, 1981 to 1995

Source: ONS, Government Actuary's Department

Reference: General Household Survey

The Government Actuary's Department compiles data on life expectancy from data on population and deaths. Life expectancy is at birth and is the average number of years that men and women can be expected to live, based on the current rates of mortality at each age. Healthy life expectancy, also at birth, has been calculated by ONS using people's assessment of their own general

health, from the General Household Survey (GHS). Adjustments have been made for residents of communal establishments and assumptions made for health rates in the under 16s since the GHS covers private households only and general health questions were asked only of those aged 16 and over. Figures shown are the middle year of 3-year moving averages.

H7 Homes judged unfit to live in

Percentage of homes judged unfit to live in, by tenure, in England, 1986, 1991, and 1996

Source: DETR

Reference: English House Condition Survey, (ISBN 0-11-7534587)

Whether a dwelling is unfit or not is a matter of judgement against certain defined criteria and it is important that it is measured in a consistent way over time. A national house condition survey with a consistent approach is the most effective way to achieve this. The data for this indicator are drawn from the 1986, 1991 and 1996 *English House Condition Surveys*. The 1996 EHCS was the latest in a set of seven surveys undertaken every five years by the DETR. The survey involves building surveyors making physical inspections of each dwelling in the sample, including judging each dwelling's fitness. Consistent measures of fitness of the dwelling stock are not available from surveys before 1986 because the definition of fitness changed. The surveys provide a major source of information for the development and monitoring of housing policies directed at the repair, improvement and energy efficiency of the housing stock. The 1996 survey estimates that in 1996, 7.2 per cent of dwelling in England were unfit (confidence interval plus or minus 0.2 per cent).

The current fitness standard is given in "*The Fitness Standard, 1989 Local Government and Housing Act (Section 604)*". This states that:

"A dwelling house is fit for human habitation unless in the opinion of the local housing authority it fails to meet one or more of the requirements below and by reason of that failure is not reasonably suitable for occupation."

Requirements of the standard:

- it is free from disrepair
- it is structurally stable
- it is free from dampness prejudicial to the health of the occupants (if any)
- it has adequate provision for lighting, heating and ventilation
- it has an adequate piped supply of wholesome water
- it has an effective system for the draining of foul, waste and surface water
- it has a suitably located WC for the exclusive use of the occupants

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- it has for the exclusive use of the occupants (if any) a suitably located bath or shower and wash-hand basin, each of which is provided with a satisfactory supply of hot and cold water
- there are satisfactory facilities in the dwelling home for the preparation and cooking of food, including a sink with a satisfactory supply of hot and cold water.

National House Condition Surveys are conducted in all countries in the UK, although in different years and with different frequency. House condition surveys conducted in Northern Ireland and Wales apply the same measure of fitness as in England. In Scotland, however a different measure is used which estimates the number of occupied dwellings Below a Tolerable Standard (BTS).

The results from the Welsh House Condition Survey have been published in a free Statistical Report: reference SDB 94/99 - called "1998 Welsh House Condition Survey". This is obtainable directly from the National Assembly for Wales. The Address is Statistics Directorate, Branch 7, Cathays Park, Cardiff CF1 3NQ

H8 Level of crime

The numbers of offences recorded by the police per 100,000 population, 1970-1998/9, England and Wales

Source: Crime & Criminal Justice Unit of the Research, Development and Statistics Directorate, Home Office

Reference: Home Office Statistical Bulletin Series on recorded crime statistics

A large proportion of crime committed is unrecorded, as many offences are not reported to the police. The propensity of the public to report offences to the police varies by type of offence and may also change over time. Thus statistics of offences recorded by the police may not accurately reflect the underlying trend in crime committed.

The indicator chart includes trends for three key groups of offences. The first two of these, 'burglary in a dwelling' (which is largely stealing, or attempted stealing, from a dwelling by an uninvited intruder) and 'theft of or from a motor vehicle' (including thefts of vehicles which are recovered) cover a significant number of offences which are of particular concern to individuals. As these offences have relatively high rates of reporting (although thefts from vehicles are the least well reported), the figures are likely to reflect genuine changes in these crimes over time fairly well. The third group of offences is 'violent crime' which consists of violence against the person, sexual offences and robbery. This group is subject to considerable under-reporting of offences to the police but is included because these offences are of high concern to the public, particularly to women. Police and other initiatives increase reporting (for

example, of domestic violence) so future figures on violent crime may increase on this account.

From the beginning of 1998/9 there was a change of counting rules used by police forces in England and Wales to count recorded offences. These new rules do not greatly affect the counting of burglary and motor vehicle theft, but the coverage and counting of violent offences changed significantly and this will affect the future presentation of this indicator. However, the 1998/9 figures illustrated in the chart are on a comparable basis to those for earlier years.

This indicator is currently based on recorded offences figures which are also available at regional and local levels. The basis of this indicator and the possible use of victimisation survey data might be reviewed in the future.

H9 Emissions of greenhouse gases

Emissions of carbon dioxide and the basket of greenhouse gases, 1990-1998, United Kingdom

Source: National Environmental Technology Centre, AEA Technology (NETCEN)

Reference: 1997 UK Air Emission Estimates, Table 1- DETR Information Bulletin 465, 13 May 1999; <http://www.aeat.co.uk/netcen/airqual/index.htm>

The six gases in the 'basket' are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Global Warming Potentials provide a relative index which allows the radiative effects of emissions of each greenhouse gas to be compared measured in million tonnes of carbon (or carbon dioxide) equivalent. Tonnes in terms of carbon equivalent can be converted to tonnes in terms of carbon dioxide equivalent by multiplying by 44/12. Emission estimates are calculated by applying emission factors to statistical information, mainly on fuel consumption data as opposed to measurements at the point of emission. It is estimated that the uncertainties in emission estimates for carbon dioxide and the basket of greenhouse gases (weighted by global warming potential) are ± 4 per cent and about ± 20 per cent respectively. Although for any given year uncertainties surround the emission estimates for each pollutant, trends over time are likely to be more reliable. UK national emission estimates are updated annually and any developments in methodology are applied retrospectively to earlier years.

H10 Days when air pollution is moderate or higher

Average number of days per site when air pollution is moderate or higher, 1987-1998, United Kingdom

Source: DETR

Reference: Development of an indicator of overall air pollution concentrations, <http://www.environment.detr.gov.uk/airq/airpollconc/index.htm>

The pollutants included within the indicator are particles (PM₁₀ particulate matter 10 microns or less in diameter), ozone, sulphur dioxide, nitrogen dioxide and carbon monoxide. Monitoring data from the National Automated Monitoring Networks were used. Concentrations of the five pollutants were analysed to determine the number of days at each site on which the pollution was moderate, high or very high. This means that concentrations for at least one of the pollutants exceeded the National Standard, which represents the concentration below which air pollution is unlikely to have any health effects. For ozone, in addition to the National Standard criteria for an 8 hour running mean greater than 50 ppb, a day will be in the moderate band if there is a 1 hour mean of 50-89 ppb. Trends are presented separately for urban and rural sites because a more limited range of pollutants is measured at rural sites. The number of urban sites covered ranges from 9 sites in 1993 to 34 sites in 1998; the number of rural sites ranges from 10 in 1987 to 14 in 1998.

National Standards for these pollutants can be found on the UK National Air Quality Information Archive website at:
<http://www.aeat.co.uk/netcen/airqual/dailystats/standards.html>

H11 Road traffic

Road traffic vehicle miles by type of vehicle, 1950-1998, Great Britain

Source: DETR

Reference: Transport Statistics Great Britain 1999 edition: table 9.4 - TSO, 1999 (ISBN 0-11-552163-1).

Traffic estimates are derived from roadside traffic counts. The total activity of traffic on the road network in Great Britain is measured in vehicle miles. Figures have only been collected in Northern Ireland since 1992.

H12 Rivers of good or fair quality

Percentage of total river length of good or fair chemical quality (1990-1998) and good or fair biological quality (1990, 1995), United Kingdom

Source: Environment Agency, Scottish Environment Protection Agency, Environment and Heritage Service

Reference: Digest of Environmental Statistics No. 20 1998: tables 3.4, 3.7a, 3.8 (updated) - TSO (ISBN 0-11-753466-8)

The environment agencies of England and Wales, Scotland and Northern Ireland carry out annual chemical water quality surveys. Three determinands are used for quality classification: biochemical oxygen demand, dissolved oxygen and ammonia. Data from rolling three-year sampling windows are

presented to reduce the bias which might be caused by unusual weather conditions in any one year. A different classification system is used in Scotland compared with other countries, but the results are reasonably comparable for the indicator shown. 1991 data for Northern Ireland have been used to produce the UK estimate for 1990.

To provide a more comprehensive picture of the health of rivers and canals, biological testing was carried out in parallel with chemical testing in 1990 (1991 in Northern Ireland) and 1995. Biological grading in the United Kingdom is based on the monitoring of tiny animals (i.e. macro-invertebrates) that live in or on the bed of the river. Species groups recorded at a site were compared with those which would be expected to be present in the absence of pollution, allowing for the different environmental characteristics in different parts of the country. The biological grading system in Scotland differs from that used in the rest of the UK.

H13 Population of wild birds

An index of the populations of the more common species of native wild breeding birds, 1970-1998, United Kingdom

Source: Royal Society for the Protection of Birds (RSPB); British Trust for Ornithology (BTO); DETR

Reference: The State of the UKs Birds 1999 RSPB/BTO, January 2000 (21/282/99-00)

This index is based on data for 139 species of more common breeding birds, which are native to the UK. Rarer species have been excluded

During the period 1970-1998, 229 species of wild birds bred in the UK. Annual population indices are available for 186 of these, most of which (172) are native to the UK. Thirty-three of these had populations of less than 500 pairs and were excluded from the indicator because their populations are small and changes often reflect exceptional or localised factors which are not representative of the countryside generally. The remaining 139 more common species of native wild birds were used in the index.

Population indices for individual species were derived from counts of breeding pairs and the index portrays the proportional change in population sizes between years, with 1970 set as the base year. Within the multi-species index, each species is given equal weighting. The index was calculated by first taking a logarithmic transformation of each species series and then taking the exponential of the average for each year to form the overall index. This transformation was necessary because of the skewed nature of the distributions. It must be recognised that any overall index, by its very nature, may conceal increasing or decreasing trends for individual species.

The estimates are based on data and modelling. In the future, past estimates may be revised when new data or improved methodologies are developed

and applied retrospectively to earlier years. This indicator is considered to give reliable general medium-term and long-term trends, but not too much reliance should be attached to levels for individual years or on short-term changes from year-to-year. Due to the nature of the data it is estimated that each index point is subject to a margin of error of ± 5 per cent.

Farmland and woodland birds, which are included in the overall index are also shown separately. Farmland birds are also included in the Ministry of Agriculture, Fisheries and Food (MAFF) pilot set of indicators of sustainable agriculture in the UK. Farmland accounts for 76 per cent and woodland around 10 per cent of the UK land area.

The indicator at present does not include populations of wintering waterfowl. However, the index might be further developed to include such species.

H14 New homes built on previously developed land

Percentage of new homes built on previously developed land, 1989-1997, England

Source: DETR

Reference: Land Use Change Statistics in England No.13, DETR statistical bulletin, (ISBN 1-85112-146-3) (volume 14 in production), www.planning.detr.gov.uk/luc14

The indicator chart shows the percentage of new homes built on previously developed land. These figures do not include conversions of existing buildings, which are estimated to add another 3 percentage points. 'Previously developed land' is land which was previously used for residential, transport and utilities, industrial and commercial, or community purposes, or was vacant but had been previously developed.

Details of changes in land use are recorded for DETR by Ordnance Survey as part of its map revision work in England. Changes to residential use are mostly recorded within three years of the change occurring, and so the figure for 1997 is provisional and may be revised in the next publication. Re-use of existing buildings, through conversions, is not picked up, as there is no change to the physical shape of a building.

H15 Waste arisings and management

Source: DETR

Reference:

- A way with waste a draft waste strategy for England and Wales, 1999;
- National Waste Strategy: Scotland draft strategy for Scotland, 1999;
- Waste management strategy 1999-2019 draft waste strategy for Northern Ireland, 1999.

Quality of life counts 1999 - Technical annex

This chart is based on provisional data, and will be revised later in 2000 when final data from the Environment Agency's surveys of industrial and commercial waste, and construction and demolition waste are available.

The indicator covers controlled waste under the terms of the Environmental Protection Act 1990, from households and the industrial and commercial sectors, including construction and demolition waste, but excluding waste from agriculture, mining and quarrying and the waste management industry.

Figures for Scotland and Northern Ireland are taken, where available, from their draft waste strategies. For England and Wales, figures for household waste come from the DETR/National Assembly for Wales' municipal waste survey, 1997/98, and estimates for industrial and commercial waste are based on provisional results from the Environment Agency's national survey of industrial and commercial waste.

Estimates for construction and demolition waste are approximate and based on the 1990 UK total of 70 million tonnes, as quoted in the annual DETR Digest of Environmental Statistics.

Recycling includes materials recycling and composting, and recycling of crushed aggregates.

Other recovery includes land recovery, and reuse of construction/demolition waste.

Other disposal includes incineration without energy recovery, and other treatment of industrial/commercial waste.

J1 People finding access difficult

Percentage of people with and without a car finding access to amenities difficult, in 1997/98, in England

Source: DETR, Survey of English Housing

Reference: *Housing in England 1997/98*. Green H, Bumpstead R, Thomas M and Grove J. The Stationery Office. Chapter 7 and Table A7.30, (ISBN 0-11-621234-9).

The data are based on the 1997/98 Survey of English Housing carried out for the Department of the Environment, Transport and the Regions by the Office for National Statistics. A nationally representative sample of about 20,000 private households were interviewed face to face in their homes. This represents a response rate of 80 per cent.

Householders were asked to say (on a five-point scale) how easy it was for them to get to each of five different amenities, and the answers were cross-tabulated by whether they had access to a car or not. Similar questions were asked in the 1994/95 Survey of English Housing.

The estimated sampling error for the proportions shown for those with access to a car are about ± 0.4 percentage points at the 95 per cent confidence level for all amenities other than hospitals, for which the 95 per cent confidence interval is approximately ± 0.8 percentage points. For those without access to a car, the equivalent confidence intervals are about ± 0.7 for most amenities, and ± 1.3 for hospitals.

J2 Access to services in rural areas

Percentage of English rural parishes without key services, 1991, 1994, 1997

Source: The Countryside Agency (formerly Rural Development Commission)

Reference: 1997 survey of rural services. Rural Development Commission, (ISBN 1-869964-62-4).

The Rural Development Commission commissioned a survey of rural services in 1997. The research was conducted by a postal self-completion questionnaire, which was sent to the Parish Clerk of each rural parish (i.e. those with a population of less than 10,000) in England. 9,677 questionnaires were distributed in the early part of 1997, of which 7,789 were returned, a response rate of 81 per cent. Results have been adjusted to take account of the missing responses. Information was collected about a wide range of services, including shops, post offices, schools, health facilities, public transport and community and leisure facilities. Similar surveys were also commissioned in 1991 and 1994.

J3 Access for disabled people

Percentage of disabled people having difficulties in accessing goods and services, in 1996, in Great Britain

Source: Department of Social Security (DSS), Office for National Statistics (ONS)

Reference: Graham Whitfield *The Disability Discrimination Act: Analysis of Data from an Omnibus Survey*, In-house report 30: tables 3.1,3.3, 3.8, 3.10 - DSS, July 1997, (ISBN 1-85197-831-3)

Reported figures are derived from a self-reported health survey of adults aged 16 and over interviewed in an ONS Omnibus survey in the first three months of 1996. The survey's purpose was to collect a baseline measure to contribute towards the monitoring and evaluation of the measures in the Disability Discrimination Act 1995 relating to the provision of goods and services to disabled people. It set out to identify people who were likely to be covered by the provisions of the Act, and then (among other issues) to gather information on the extent to which they reported having difficulties accessing goods and services and what types of difficulties they reported experiencing.

The Omnibus survey is carried out every month by ONS. It includes questions on a number of different topics, which may vary from month to month. Face to face interviews were conducted with 5,797 adults in Great Britain in the first three months of 1996, some nine months before the relevant provisions of the Disability Discrimination Act became law. This represents a response rate of 72 per cent. All percentages in tables are weighted to be representative of the whole population aged 16 and over.

J4 Participation in sport and cultural activities

Percentage of men and women participating in sport, games and physical activities, 1987-1996, Great Britain

Source: Office for National Statistics

Reference: Living in Britain: Results from the 1996 General Household Survey TSO, 1998 (ISBN 0-11-621027-3)

A consistent set of questions about participation in sports and leisure activities has been used in the General Household Survey at three-year intervals since 1987. Overall measures of participation have been calculated and published, but these cover only sports, games and physical activities. The measure shown is the proportion of people aged 16 and over who took part in at least one activity in the four weeks before they were interviewed. Walking a distance of two miles or more for leisure has been excluded from the indicator of overall participation because it is such a widespread activity. In 1996, 64 per cent of adults had taken part in some sport or physical activity during the four weeks before interview. Excluding people whose only activity had been these long walks reduced the overall participation figure to 46 per cent.

The Department of Culture Media and Sport (DCMS) is developing an indicator that is broader than just sports, games and physical activities. It is likely to include, for example, visiting museums and galleries, going to the cinema, and reading books. The plan is to collect national data through the UK Time Use Survey in 1999/2000 and to update it using the General Household Survey at three yearly intervals, in 2002/3 onwards.

J5 Homeless households in temporary accommodation: 1982-1998

Source: DETR, National Assembly for Wales, Northern Ireland Housing Executive, Scottish Executive

J6 Fuel poverty

Households in fuel poverty, 1991 and 1996, England

Source: DETR

Reference:

- English House Condition Surveys DETR;
- Fuel Poverty: the New HEES: a programme for warmer, healthier homes DETR, 1999

The commonly applied definition of a fuel poor household is one which needs to spend in excess of 10 per cent of income on fuel to maintain a satisfactory heating regime (21°C in the living room and 18°C in the other occupied rooms).

The 1991 English House Condition Survey (EHCS) did not collect comprehensive data on household income and the analysis was therefore unable to either properly exclude or include housing costs in the calculation of housing income. It excluded Housing Benefit but not any other housing costs, such as mortgage or rent payments. The 1996 survey collected better data on housing costs and household income, though again not sufficient to exclude all housing costs. The government's consultation paper (see Reference above) sought views on the appropriate definition of fuel poverty, and this issue will be given further consideration.

HEES: Home Energy Efficiency Scheme

K1 Vacant land and properties and derelict land

Number of vacant dwellings in England, 1981-1998; derelict land stock in England, 1974, 1982, 1988, and 1993

Source: Department of the Environment, Transport and the Regions (DETR)

Reference:

- Housing & Construction Statistics 1987-97: table 9.9, TSO, 1998, (ISBN 0-11-753484-6);
- Survey of Derelict Land in England 1993: table 3.8, 3.14, TSO, 1995 (ISBN 0-11-752942-7);
- National Land Use Database Provisional Results for Previously Developed Land in England. DETR Government Statistical Service Information Bulletin No 500, May 1999, table 1.

Vacant dwellings: The numbers of vacant dwellings in each sector as at 1 April each year are derived from various returns from local authorities in England. Vacant dwellings are defined as dwellings that are empty between changing occupants or undergoing modernisation, repair or conversion, or demolition; or newly completed but not occupied. Data on vacant dwellings is collected from local authorities and Registered Social landlords in respect of their own stock. In addition local authorities are asked to provide an estimate of the number of vacant private sector dwellings in their area.

Derelict land: is land so damaged by industrial or other development that it is incapable of beneficial use without treatment.

The *Derelict Land Surveys* assessed the stock of derelict land in England, how much of this stock justified reclamation and how much land had been reclaimed between surveys. Categories of land not covered by the surveys include: sites regarded as derelict from natural causes; land damaged by development which is subject to enforceable planning conditions; land still in industrial or other recognised use; land damaged by development which has blended into the landscape in the process of time; vacant land including sites awaiting development, abandoned building awaiting demolition as part of a development scheme; and neglected or unsightly land e.g. eligible for the DETR's small clearance scheme.

The first results from the National Land Use Database, which was set up in 1998, were published in May 1999. They provide a consistent assessment of previously developed vacant and derelict land and other land that may be available for redevelopment. They are based on returns from local planning authorities in England.

K2 New retail floorspace in town centres and out of town

Area of new retail floorspace in town centres, out-of-town and retail parks, 1965-1998, UK

Source: Oxford Institute of Retail Management (OXIRM)

Reference: The Shopping Centre Industry: Its Importance to the UK Economy BCSC/OXIRM, October 1998.

The data for this indicator is based on research into new developments involving a combination of field surveys, retailers' branch lists, company reports and press cuttings, supported by information from local authority planning departments.

The definition of a shopping centre is a purpose built shopping development of 50,000 sq. ft (4,645 m²) gross lettable retail area, or over, comprising three or more retail units. Where a shopping centre has been extended or a new phase added to the existing centre, this has been included in the floorspace data for the appropriate year.

Town centre is defined as being located in a town centre or the central business district of a city. Retail parks are purpose built centres solely comprised of at least three retail warehouses of not less than 10,000 sq. ft gross (939 m²) and have common parking.

K3 Population growth

UK population estimates and projections, by age group, 1971-2036

Source: Office for National Statistics (estimates), Government Actuary's Department (projections)

Reference:

- Estimates: Population Trends (Table 1.5). Journal of the Office for National Statistics. The Stationery Office (quarterly).
- Projections: National population projections: ONS Series PP2. The Stationery Office (biennial).
- GAD web site: <http://www.gad.gov.uk> (PP2 no. 21, which came out in 1999, covered the 1996-based projections.)

The estimated and projected populations include all those usually resident in the area, whatever their nationality. Members of HM forces stationed outside the United Kingdom are excluded. Figures for the United Kingdom do not include the population of the Channel Islands or the Isle of Man.

The projections are made by ageing-on the population from one year to the next, and adding births, subtracting deaths, and adding net in-migration. The process is repeated year by year into the future. New projections are made every second year; the projections shown are based on the estimated population at mid-1996. The latest mid-year estimate (in this case 1996) is used as the starting point. The projections are therefore dependent on the assumptions made about future fertility, mortality and migration. The projections are produced for each of the four component countries of the

United Kingdom, and the results added together to produce the projection for the UK as a whole.

K4 Household growth

Household estimates and projections, 1971-2021, for England, Wales and Scotland (as available)

Source: Department of the Environment, Transport and the Regions; National Assembly for Wales; Scottish Executive

Reference:

- 'Projections of households in England to 2021', published October 1999; (ISBN 1-85112-326-1)
- Welsh Housing Statistics 1999, published November 1999; (ISBN 0-7504-2372-2)
- The Scottish Executive Statistical Bulletin, Housing Series, HSG/1998/5
- '1996-based Household Projections for Scotland', published August 1998; (ISBN 0-7480-7672-7).

For the census years (1971, 1981 and 1991), the mid-year estimates are calculated primarily using census data. For other years, in England and Wales the mid-year estimates are calculated by replacing the projected population with the mid-year population estimate. Adjustments may also be made at a later date to replace projected marital status with marital status estimates at those years. In Scotland in the intervening years the household estimates are based on changes in the occupied housing stock.

The household projections are trend based, in the sense that they illustrate how many households would form from the projected future population if past trends in household formation were to continue into the future. The projections are heavily dependent on the demographic assumptions used, particularly international and internal migration, household formation, and for England and Wales the marital status projections. They are not policy-based forecasts of what the Government expects or intends to happen. The national population projections are also trend based; these are prepared by the Government Actuary's Department (see indicator K3).

K5 Buildings of Grade I and II* at risk of decay

Percentage of Grade I and II listed buildings at risk, 1998-1999, England*

Source: English Heritage

Reference: Buildings at Risk: The Register 1999, Diagram 1, English Heritage, <http://www.english-heritage.org.uk>

The indicator chart covers grade I/A and II*/B entries in the register of buildings at risk, expressed as a percentage of total grade I/A and II*/B entries in the statutory list of buildings of special architectural or historic interest. The totals include listed scheduled ancient monuments, as well as buildings.

Listed buildings are graded to show their relative importance:

- *Grade I* buildings are those of exceptional interest
- *Grade II** are particularly important buildings of more than special interest
- *Grade II* are of special interest, warranting every effort to preserve them.

Risk is assessed on the basis of condition and, where applicable, occupancy.

K6 Quality of surroundings

Percentage of householders saying that there are problems in their area, in 1992, 1994/95 and 1997/98, in England

Source: DETR, Survey of English Housing

Reference: *Housing in England 1997/98*. Green H, Bumpstead R, Thomas M and Grove J. The Stationery Office. Chapter 7 and Table A7.16, (ISBN 0-11-621234-9).

The most recent data are based on the 1997/98 Survey of English Housing carried out for the Department of the Environment, Transport and the Regions by the Office for National Statistics. A nationally representative sample of about 20,000 private households were interviewed face to face in their homes. This represents a response rate of 80 per cent.

Householders were asked to say whether various problems occurred in their area and, if so, whether or not they were serious. Similar questions were asked in the 1992 Housing Attitudes Survey and the 1994/95 Survey of English Housing. Table 7.16 in the 1997/98 report includes data from those two previous surveys.

The estimated sampling error for the proportions shown are approximately ± 0.7 percentage points at the 95 per cent confidence level in 1997/8. The data for earlier years are based on smaller samples, and the equivalent confidence intervals are approximately ± 1.0 for 1994/5 and ± 2.0 for 1992.

K8 Noise levels

Percentage of population exposure to different noise levels outside the home, England and Wales, 1990

Source: Building Research Establishment

Reference: Digest of Environmental Statistics No20: table 6.1 - TSO, 1998, (ISBN 0-11-753174-X)

Noise levels are measured in decibels on the A-scale, dB(A). The A-scale takes account of the response of the human ear to different frequencies of sounds. An increase of 10 dB(A) corresponds approximately to doubling the loudness of a sound.

K9 Fear of crime

Percentage of people saying they were "very worried" about being a victim of selected offences, 1984-1998, England and Wales

Source: Home Office

Reference: British Crime Survey (BCS). The 1998 British Crime Survey. Home Office Statistical Bulletin. (ISBN 1-84082-183-3)

Data are based on responses in up to six victimisation surveys carried out in England and Wales 1984, 1988, 1992, 1994, 1996 and 1998. In 1998 the estimated response rate was 79 per cent, with almost 15,000 people (aged 16 and above) being interviewed face to face in their homes. The estimated sampling errors for the proportions shown are ± 1 percentage point at the 95 per cent confidence level.

The indicator covers three groups of offences; theft of car (not including theft from cars), burglary (which is largely stealing, or attempted stealing, from a dwelling by an uninvited intruder) and physical attack (which does not cover all violent offences). The responses for theft of car are based on car owners only.

The Home Office are currently considering overall measures of changes in fear of crime, so in the future this indicator may be revised.

L1 Number of local authorities with LA21 strategies

Local authorities who are committed to producing a Local Agenda 21 strategy, those who have already produced a strategy and response rate to the 1994, 1996 and 1998 surveys, United Kingdom

Source: Improvement and Development Agency (IDeA).

Reference: Local Agenda 21 Survey, 1998; IDeA May 1999

Data are based on surveys commissioned by the Local Government Management Board (now IDeA) on behalf of the LA21 UK Steering Group. The 1994 and 1996 surveys were both carried out by the University of Westminster and the 1998 survey by Brunel University.

In each case the survey was sent to a named officer with LA21 responsibilities in every authority in the United Kingdom, with the exception of the 1994 survey, when 480 forms went to named officers, the remainder going to Chief Executives for circulation.

Data for the numbers who have produced strategies in 1994 and 1996 are based on responses to the 1998 survey, as this question was not asked in the earlier surveys.

The proportion of local authorities developing indicators is based on a survey carried out by the Local Government Management Board in June 1998. This showed 246 authorities (52 per cent of all authorities) responding positively to the question 'Is your Local Authority developing sustainability indicators?'

The Government with the assistance of the IDeA and the Local Government Association are currently developing a core menu of local indicators which local authorities and LA21 groups could use on a voluntary basis. Draft guidance, including common definitions and methods for collecting relevant data, will be published in Spring 2000.

Possible future development for this indicator could involve some quality assessment of LA21 strategies and use of indicators.

L2 Voluntary activity

Percentage of householders participating in voluntary activity in the last 12 months, 1996/7, England

Source: DETR, Survey of English Housing

Reference: Housing in England 1996/97, Chapter 7, Green H., Deacon K and Down D. TSO (ISBN 0-11-621020-6)

The data are based on the 1996/7 Survey of English Housing carried out for the Department of the Environment, Transport and the Regions by the Office

for National Statistics. A nationally representative sample of about 20,000 private households were interviewed face to face in their homes. This represents a response rate of 79 per cent. The estimated sampling error for the proportion of all households involved in voluntary activity is ± 0.7 percentage points at the 95 per cent confidence level. Equivalent confidence intervals for the proportions in the different area types shown are between ± 1 and ± 2 percentage points.

Respondents were asked if they had done any unpaid voluntary work in the last twelve months, that is, work for which they were not paid except for expenses. Work for political parties and trade unions is excluded.

Participation in voluntary work is analysed in relation to characteristics of the household and the household head, which will not always be the person actually involved in the voluntary work.

The indicator is illustrated by type of area. This uses the ACORN classification of residential neighbourhoods, which groups areas according to various Census characteristics such as tenure and economic status. (CACI ACORN codes, © CACI Limited 1994 All rights reserved. Source: ONS and GRO(S) © Crown Copyright 1991 All rights reserved)

L3 Community spirit

Percentage of householders who thought their area had a lot of community spirit, in 1992, 1994/95 and 1997/98, in England

Source: DETR, Survey of English Housing

Reference: *Housing in England 1997/98*. Green H, Bumpstead R, Thomas M and Grove J. Chapter 7 and Table A7.13, TSO, (ISBN 0-11-621234-9)

The most recent data are based on the 1997/98 Survey of English Housing carried out for the Department of the Environment, Transport and the Regions by the Office for National Statistics. A nationally representative sample of about 20,000 private households were interviewed face to face in their homes. This represents a response rate of 80 per cent.

Householders were asked to say whether they felt there was a lot of community spirit in their area. A similar question was asked in the 1992 Housing Attitudes Survey and in the 1994/95 Survey of English Housing. Householders were also asked whether they would describe the people who lived in their area as friendly or not (on a four point scale).

The estimated sampling errors for the proportions shown are about ± 0.7 percentage points at the 95 per cent confidence level for 1997/8, ± 1.0 for 1994/5, and ± 2.0 for 1992. Equivalent confidence intervals for the proportions in the different area types shown for 1997/8 are between ± 1.0 and ± 3.0 percentage points.

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The indicator is illustrated by type of area. This uses the ACORN classification of residential neighbourhoods, which groups areas according to various Census characteristics such as tenure and economic status. (CACI ACORN codes, © CACI Limited 1994 All rights reserved. Source: ONS and GRO(S) © Crown Copyright 1991 All rights reserved)

M1 Concentrations of persistent organic pollutants

Source: NETCEN, MAFF

Reference:

M2 Dangerous substances in water

The number of sites exceeding Environmental Quality Standards for selected List I substances at sites below discharge points and National Network Reference sites, 1995-1997, England, Wales and Northern Ireland

Source: Environment Agency, Environment and Heritage Service

Reference: The State of the Environment of England and Wales: Fresh Waters: figures 4.26a-c (maps only) TSO, 1998 (ISBN 0-11-310148-1)

In accordance with the EC Dangerous Substances Directive, the Environment Agency monitors surface waters receiving List I substances from point source discharges containing these substances. Such sources include all industrial plants and sewage treatment works that are liable to handle and discharge these substances. National Network (background reference) sites are also monitored for List I substances at places unaffected by discharges. There are approximately 200 National Network Reference sites and a further 800 sites reflecting discharge points and diffuse sources that monitor List I substances.

The Environmental Quality standards set by the EC Dangerous Substances Directive for List I substances are: 5m g/l for cadmium, 1m g/l for mercury, 0.1m g/l for HCH and 0.025 m g/l for DDT. At National Network Reference sites cadmium and HCH must also not exceed levels set in two further EC directives: 1m g/l for cadmium and 0.05m g/l for HCH.

M3 Radioactive waste stocks

High level radioactive waste: 1986-1998; Intermediate level radioactive waste: 1986-1998, United Kingdom

Source: DETR; UK Nirex Ltd

Reference: Electrowatt Ekono (UK) Ltd. The 1998 United Kingdom Radioactive Waste Inventory, DETR/RAS/99.009; UK Nirex N3/99/01 DETR and UK Nirex Ltd.

Similar inventories have been produced for 1986, 1987, 1988, 1989, 1991 and 1994.

Data shown in this indicator are mainly collected under inventories commissioned jointly by DETR and UK Nirex Ltd and covering all nuclear

operators. The inventory is now well established but is no longer produced annually.

A summary table is published annually in DETR's Digest of Environmental Statistics, latest edition no 20, 1998 The Stationery Office (ISBN 0-11-753466-8)

High level wastes (HLW) result from the reprocessing of nuclear fuel and are highly radioactive.

Intermediate level wastes (ILW) are less radioactive and include nuclear reactor components and the metal cladding used for nuclear fuel.

Low level wastes (LLW) do not normally require shielding during handling and transport, unlike HLW and ILW. Examples include rubble, discarded protective clothing and worn out or damaged plant and equipment from nuclear sites.

M4 Discharges from the nuclear industry

Discharges from the nuclear industry: 1983-1998, United Kingdom

Source: DETR

Reference: W S Atkins Science & Technology. Environment Indicators for Radioactive Discharges from Nuclear Sites. Technical note AM2879-TN5, Sept 1999, for DETR.

Radioactive atmospheric discharges and liquid discharges from nuclear installations are released through specially designed systems. Discharges are continuously monitored using a variety of instrumentation depending on the types of radionuclides being discharged. Representative samples of discharges are taken and assessed in the laboratory to determine actual discharges of individual radionuclides.

The data on discharges in this indicator cover all nuclear power and defence activities. Different radionuclides have different toxicities and therefore to provide proper indications of change over time, all of the discharge data have been weighted, using discharges of caesium-137 as the baseline, to take account of relative toxicities.

The indices for liquid and atmospheric discharges have been derived from data on discharges published annually in DETR's Digest of Environmental Statistics latest edition no 20, 1998 The Stationery Office (ISBN 0-11-753466-8). The index for nuclear power generation has been derived from data on electricity supply from nuclear stations published annually in Department of Trade and Industry's Digest of United Kingdom Energy Statistics.

N1 Rise in global temperature

Average surface temperature, 1772-1998, Global and Central England

Source: Hadley Centre for Climate Prediction and Research

Reference:

- A new daily central England temperature series, 1772-1991, D,E Parker, D.E., T.P.Legg and C.K.Folland, *Int. J. Clim.*, Vol 12 (1992) pp 317-342.
- Marine surface temperature observations and data requirements, D.E Parker, C.K. Folland and M. Jackson, *Climate Change*, Vol 31 (1995) pp 559-600.
- Surface air temperature and its changes over the past 150 years, P.D Jones, M. New, D.E. Parker, S.Martin and I.G.Rigor, *Reviews of Geophysics*, 37,2 (May 1999) pp 173-199.

This indicator compares smoothed annual mean global temperature and temperatures over central England with the average temperatures recorded between 1961 and 1990.

The smoothed figures are based on ten-year moving averages.

N2 Sea level rise

Changes in mean sea level at selected sites, 1850-1997, Great Britain

Source: NERC Proudman Oceanographic Laboratory (POL)

Reference:

- A review of the trends observed in British Isles mean sea level data measured by tide gauges, Woodworth P L, Tsimplis M N, Flather R A and Shennan I;
- *Geophysical Journal International*, 136, 651-670, 1999;
- POL website - <http://www.pol.ac.uk>

A network of 44 high quality tide gauges is currently operated in the UK to give continuous records of sea level. However, with the normal variability of sea levels due to tides and meteorological conditions it is only possible to determine long-term changes in relative mean level from very long records. Sites have been selected to give a long time series and wide geographical coverage of the coast. Annual 'Revised local reference' sea level data are available for sites around the UK coast from the Permanent Service for Mean Sea Level operated under the auspices of the International Council of Scientific Unions (ICSU) and the Intergovernmental Oceanographic Commission (IOC). POL maintains the UK strategic sea level monitoring system.

N3 Carbon dioxide emissions by end user

Carbon dioxide emissions by end user, 1970-1997, United Kingdom

Source: National Environmental Technology Centre, AEA Technology (NETCEN)

Reference: Digest of Environmental Statistics No. 20 1998: table 1.2 (updated) TSO, 1998 (ISBN 0-11-753466-8).

Carbon dioxide emissions are calculated by applying emission factors to statistical information, mainly on fuel consumption data as opposed to measurements at the point of emission. It is estimated that the uncertainty in total carbon dioxide emission estimates is ± 4 per cent. Although for any given year uncertainties surround the emission estimates for each pollutant, trends over time are likely to be more reliable. UK national emission estimates are updated annually and any developments in methodology are applied retrospectively to earlier years. A simple pro-rata method is used to re-allocate estimated emissions from power stations and other fuel processing industries to final users of delivered energy. "Services" includes emissions from the public administration and the service sectors plus emissions allocated to fuels exported or used by international shipping and non-fuel emissions. Tonnes in terms of carbon equivalent can be converted to tonnes in terms of carbon dioxide equivalent by multiplying by 44/12.

N4 Electricity from renewable sources

Percentage of electricity generated by renewable sources, 1988-1998, and percentage shares of renewable sources, 1998, United Kingdom

Source: Department of Trade and Industry

Reference: Digest of United Kingdom Energy Statistics 1999: table 7.4 TSO, 1999 (ISBN 011 515465 5)

Since 1990, the Energy Technology Support Unit (ETSU) has undertaken an ongoing study on behalf of the DTI to develop and maintain a database containing information on all relevant renewable energy sources in the United Kingdom. The renewable energy sources identified were onshore wind power (using a wind turbine); large scale and small scale hydro (turbines are powered by direct action of water; large scale has capacity of 5 MWe and over); wave power (using an oscillating water column device); biofuels (landfill gas; sewage sludge digestion; wood, coppice, straw and waste combustion); active solar heating (using solar collectors); photovoltaics (direct conversion of solar radiation into direct current electricity); and geothermal aquifers.

N5 Depletion of fossil fuels

Discovered recoverable reserves and cumulative production, oil and gas, 1980-1998, United Kingdom

Source: Department of Trade and Industry

Reference: Digest of United Kingdom Energy Statistics 1999: table A3.1
TSO, 1999 (ISBN 011 515465 5)

The terms *proven*, *probable* and *possible* are applied on a field by field basis and defined according to the chance of them being technically and economically producible: *proven* - over 90 per cent; *probable* - 50-90 per cent; *possible* - less than 50 per cent. Estimates for the size of reserves of oil and gas underneath the United Kingdom Continental Shelf are revised on an annual basis so that new discoveries of reserves and reassessments of existing discoveries can be included.

P1 Concentrations of selected air pollutants

Concentrations of selected air pollutants averaged over sites compared with National Standards, 1987-1998, United Kingdom

Source: National Environmental Technology Centre (NETCEN), DETR

Reference: Development of Aggregated UK Indicators of Air Quality TSO, 1998 (ISBN 0-11-753442-0); <http://www.aeat.co.uk/netcen/airqual/index.htm>

Data are from sites in the National Automatic Monitoring Networks. Summary measurements for individual sites relating to the relevant National Standard (or World Health Organisation (WHO) Guideline), for example the 97th percentile, are aggregated over sites to demonstrate the status and trends in pollution level. Trends are included for both annual average and short-term peak concentrations representative of chronic and acute health effects of air pollution. The number of sites covered ranges from a minimum of 4 sites for some pollutants in the early 1990s to 15 sites for rural ozone and around 40-60 sites for urban pollutants in 1998.

Nitrogen dioxide is thought to have both acute and chronic effects on airways and lung function, particularly in people with asthma. Sulphur dioxide affects the lining of the nose, throat and airways of the lung, in particular, among those who suffer from asthma and chronic lung disease. Carbon monoxide reduces the capacity of the blood to carry oxygen and deliver it to the tissues and can block important biochemical reactions in cells. Particulate air pollution episodes are responsible for causing excess deaths among those with pre-existing lung and heart disease. Exposure to ozone may cause irritation to the eyes and nose and very high levels can cause damage to the airway lining.

P2 Emissions of selected air pollutants

Urban road transport emissions and projections for carbon monoxide, nitrogen oxides and particulates (PM₁₀), 1970-2025, United Kingdom

Source: National Environmental Technology Centre (NETCEN)

Reference: UK Road Transport Emission Projections: The Assumptions Used and Results of the 1997 National Atmospheric Emissions Inventory Base Projections, T P Murrells NETCEN, 2000, Report AEAT-5953

Estimated nitrogen oxides and carbon monoxide emissions from vehicle exhausts are made using speed-related emission factors and information about road usage and speed distribution in the UK. Particulate emissions from exhausts and tyre and brake wear also calculated from emission factors and traffic data. It is estimated that the uncertainties in nitrogen oxides and carbon monoxide emission estimates from all sources are ± 30 per cent and ± 40 per cent respectively. The uncertainty in particulate emission estimates has not yet been estimated. Although for any given year uncertainties surround the

emission estimates for each pollutant, trends over time are likely to be more reliable.

UK national emission estimates are updated annually and any developments in methodology are applied retrospectively to earlier years. The projections have been carried out by NETCEN using the road traffic emission factors and methods incorporated in the National Atmospheric Emission Inventories.

The following assumptions have been made. The growth in traffic activity is that given by the national Road Traffic Forecasts published by DETR. These embody disaggregated growth rates from 1996 onwards. It has been assumed that 20 per cent of new car sales are diesel and that for catalyst equipped petrol cars, 5 per cent of catalysts fail each year, but are eventually repaired. The emission limits and fuel directives agreed by the European parliament have also been incorporated into the forecasts. These cover proposed reductions in cars and light goods vehicles to 2005 and in heavy goods vehicles to 2008.

P3 Sulphur dioxide and nitrogen oxides emissions

Sulphur dioxide and nitrogen oxides emissions, 1970-1997, and UNECE targets for sulphur dioxide for 2000, 2005 and 2010, United Kingdom

Source: National Environmental Technology Centre (NETCEN)

Reference: 1997 UK Air Emission Estimates, Tables 6 and 9 - DETR Information Bulletin 465, 13 May 1999;
<http://www.aeat.co.uk/netcen/airqual/index.htm>

Except for large combustion plants, information is not available on actual emissions from specific individual sources. The National Atmospheric Emissions Inventory (NAEI), prepared annually for DETR by NETCEN, is compiled as estimates derived from statistical information and from research on emissions factors for stationery and mobile sources. It is estimated that the uncertainties in nitrogen oxides and sulphur dioxide emission estimates from all sources are ± 30 per cent and $\pm 10-15$ per cent respectively. Although for any given year uncertainties surround the emission estimates for each pollutant, trends over time are likely to be more reliable. UK national emission estimates are updated annually and any developments in methodology are applied retrospectively to earlier years.

P4 Acidification in the UK

Sulphur emissions and deposition, 1986-1997, United Kingdom

Source: National Environmental Technology Centre (NETCEN), Institute of Terrestrial Ecology

Reference: Unpublished

Acid deposition consists of both wet processes (polluted rainfall) and dry processes (interception of gases and particles at the surface) and can occur hundreds of kilometres away from the source of the emissions. In the UK, wet deposition is monitored at 32 sites across the country through the collection and analysis of weekly rainfall samples using bulk collectors. Using these data, wet deposition of sulphur can be mapped allowing for the effects of mountains and the associated meteorology. Dry deposition of sulphur occurs principally through the absorption of SO₂. Concentrations of SO₂ are mapped using measurements taken at 44 rural sites across the UK. Dry deposition is calculated from these concentrations using a model of the deposition process and input data from the concentration field and meteorological variables.

Lake acidification, 1989-1998, United Kingdom

Source: DETR, United Kingdom Acid Waters Monitoring Network

Reference: Unpublished

The data are annual mean values from lake sites within the United Kingdom Acid Waters Monitoring Network. The sites all have non-forested moorland catchments and lie on geologies sensitive to acidification (poorly buffered bedrock) but cross a range of acid deposition from 'low' in northwest Scotland to 'high' in southwest Scotland and northern England. With the exception of Loch Coire nan Arr, all sites have acidified over the last 150 years. Acid Neutralising Capacity (ANC) is defined as the difference (in equivalent terms) between the sum of the concentration of base cations (calcium, magnesium, sodium and potassium) and the sum of the concentration of strong acid anions (sulphate, nitrate and chloride) in surface waters. Empirical links have been established between ANC and biological indicators. For example, in Scandinavia a critical limit for ANC of 20 mm eq/l has been estimated, above which damage to fish populations by acidification is unlikely to occur. The ANC of an acidified lake should increase (i.e. show recovery) in response to reductions in acid deposition. However, a cause-effect time lag is expected which is dependent on the rate at which catchment soils are re-charged with base cations from the underlying bedrock by natural weathering processes.

P5 Ozone depletion

Equivalent chlorine loadings from ozone depleting substances, 1970-1998, Global

Source: DETR

Reference:

- World Meteorological Organisation Global Ozone Research and Monitoring Project - Report No. 44 Scientific Assessment of Ozone Depletion: 1998;
- WMO 1999 (ISBN 92-807-1722-7). See also WMO Reports Nos. 11, 16, 18, 20, 25 and 37;

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- United Kingdom Stratospheric Ozone Review Group Stratospheric Ozone 1999, Department of the Environment Transport and the Regions, Reference number 99EP0458;
- National Oceanic & Atmospheric Administration Climate Monitoring & Diagnostics Laboratory web site <http://www.cmdl.noaa.gov/index.html>

The equivalent chlorine loading is the calculated concentration in the lower atmosphere of the chlorine and bromine contained in compounds which could be transported into the upper atmosphere. The relationship between chlorine loading in the lower atmosphere and stratospheric ozone depletion is neither simple nor exact, but in general the higher the chlorine loading the higher the potential for ozone depletion in the stratosphere.

Column ozone levels, 1979-1998, Lerwick (Shetland Isles) and Cambourne (Cornwall)

Source: United Kingdom Meteorological Office

Reference: United Kingdom Stratospheric Ozone Review Group Stratospheric Ozone 1999, Department of the Environment Transport and the Regions, Reference number 99EP0458. United Kingdom Meteorological Office Ozone Research Section web site (<http://www.meto.gov.uk/sec5/sec5pg6.html>).

In-situ measurements of stratospheric ozone are difficult to make since the ozone layer extends from approximately 8 to 30 km above the earth's surface. Total or column ozone is the amount of ozone in the column between the earth and the top of the atmosphere. This is measured from the ground using Dobson spectrophotometers. Stratospheric ozone should not be confused with tropospheric ozone, which is a pollutant formed in the lower atmosphere (troposphere) by the action of sunlight on other compounds such as those from car exhausts. The majority of the ozone in the atmosphere is found in the ozone layer.

Q1 Nutrients in water

Percentage of river length with average phosphate concentrations greater than 0.1mgP/l (1990, 1995) and average nitrate concentrations greater than 20mg NO₃/l (average over 1993-1995), England, Wales and Northern Ireland

Source: Environment Agency, Environment and Heritage Service

Reference: The State of the Environment of England and Wales: Fresh Waters: tables A5.5, A5.19 and A5.20 TSO, 1999 (ISBN 0-11-310148-1)

Data on phosphate levels in rivers are collected as part of the General Quality Assessment (GQA) programme and are reported every five years. The phosphate GQA window is reported by class, relating to different levels of phosphate concentrations. These classes include the guideline value 0.1mgP/l set by the former DOE as one of the criteria for selecting eutrophic rivers in implementing the Urban Waste Water Treatment Directive. The value of 0.1mgP/l is indicative of possible present or future problems of eutrophication.

Nitrate concentrations in rivers fluctuate, and heavy autumn rains after dry summers can cause short term, exceedences. Nitrate data were collected during the Quinquennial Survey (1993 to 1995) in advance of the development of a nutrient GQA.

Q2 Water demand and availability

Water demand and supply, 1997/8 and projections to 2024/5, England and Wales

Predicted water demand as a percentage of 1997/8 supply, 1997/8 2024/5, England and Wales

Source: Environment Agency

Reference: Unpublished

The data are derived from water resource plans provided by water companies to the Environment Agency. The available supply is defined as the water available for use, ie the volume of water available for public water supply from surface and groundwater sources. Demand is the volume of water put into the public water supply system, the principal components of which are distribution losses and water delivered to customer premises. Projections are based on predictions of population and numbers of households, forecasts of distribution losses, and predicted demand from household and commercial customers with planned demand management measures in place.

Q3 Water affordability

Source: Department of Social Security

Reference: Family Resources Survey

The annual Family Resources Survey incorporates questions on combined household water charges and income. The threshold for the percentage of disposable income above which water charges may represent hardship is taken for illustrative purposes to be 3 per cent. The median spending by households on water charges as a percentage of disposable income is less than 1.5 per cent.

Q4 Water leakage

Distribution and supply pipe losses in megalitres per day, 1992/3-1998/9 and target for 1999/2000, England and Wales

Source: Office of the Director General for Water Services (Ofwat)

Reference: 1998-99 Report on leakage and water efficiency Ofwat, 1999 (ISBN 1-874234-59-0)

Distribution losses and supply pipe losses are reported to Ofwat as part of the July Returns from water companies. The figures for 1992/3 and 1993/4 exclude measured supply pipe leakage and void non-household pipe leakage and will slightly understate leakage compared with later years. One company, South East Water, failed to provide Ofwat with a reliable data set for 1997/8 and 1998/9. The totals for these years therefore include the 1996/7 data for that company.

Q5 Abstractions by purpose

Actual abstractions from non-tidal surface water and groundwater by use, 1971-1997, England and Wales

Source: Environment Agency

Reference: Digest of Environmental Statistics No. 20 1998: tables 3.24(c) and 3.24(d) (updated) TSO, 1998 (ISBN 0-11-753466-8)

Abstractions data are based on actual returns from licence holders to the Environment Agency. Returns made by licence holders cover a high proportion of the licensed quantity and confidence in the accuracy of the data is high. Since 1991 the Environment Agency has revised the format of the survey used to collect this information, by redefining and clarifying categories and definitions, by improving methods used to take account of non-respondents, and by improving the allocation of licences to use categories. As a result more confidence can be placed in the data collected since 1991 and these data are not strictly comparable with those collected in earlier years. Fish farming only became a licensable activity in 1991. The peak in 1992 was due to increased demand in the Welsh region for water for hydro-electric power generation.

R1 Estuarine water quality, marine inputs

The percentage of estuaries in England & Wales, Scotland, N Ireland classed as good or fair over the period 1980-1997 (periods vary for each country depending on data availability); river and direct inputs from land into estuaries and marine waters of metals, nutrients and organic substances, UK 1990-1997

Source: Environment Agency, Scottish Office, Department of the Environment (Northern Ireland), DETR

Reference: Digest of Environmental Statistics No.20: tables 4.3, 4.8 - TSO, 1998 (ISBN 0-11-753466-8)

The marine inputs part of the indicator covers inputs from diffuse and point sources from rivers and from direct pipeline discharges into coastal and estuarine waters. Inputs are from both anthropogenic and non-anthropogenic sources. Atmospheric inputs are excluded because estimates are much less certain. Although widely dispersed, atmospheric may account for a significant proportion of inputs of substances such as heavy metals and nitrogen compounds.

Inputs are estimated from samples taken from all major river systems at points close to but upstream of the tidal limit as well as estimates of direct discharges into estuaries and the sea. Since some samples contain substances below detection limits two loads estimates are made, upper and lower. The lower estimates assume that the true concentrations in such samples are zero. Upper load estimates assume that the true loads are at the limit of detection. The indicator shows upper loads estimates.

R2 Compliance with Bathing Water Directive

Percentage of bathing waters complying with the EC Bathing Water Directive, 1988-1999, United Kingdom

Source: Environment Agency; Scottish Environment Protection Agency;

Environment and Heritage Service

Reference:

- DETR Information Bulletin 1090, 11 November 1999;
- Digest of Environmental Statistics No 20: table 4.1 TSO, 1998 (ISBN 0-11-753466-8)

Samples of bathing waters are taken at regular intervals beginning 2 weeks before and then during the bathing season at bathing waters around the UK covered by the EC Bathing Water Directive (535 coastal bathing waters in 1999). The season runs from mid-May to the end of September in England and Wales and from the beginning of June to mid-September in Scotland and

Northern Ireland. A minimum of 20 samples are normally taken at each site. The Directive gives mandatory limit values for total and faecal coliforms (10,000 and 2,000 per 100ml respectively). For a bathing water to comply with the mandatory coliform standards at least 95 per cent of the samples taken for each of these parameters over the bathing season must be less than or equal to the mandatory limit values. In practice this means that where 20 samples are taken only 1 sample may exceed the mandatory limit value for the bathing water to comply.

R4 Fish stocks around the UK fished within safe limits

Percentage of fish stocks around the UK fished within safe limits, UK 1989-1997

Source: International Council for the Exploration of the Sea

Reference: Digest of Environmental Statistics No 20: table 4.16 - TSO, 1998 (ISBN 0-11-753466-8)

"Safe limits" are defined as minimum biological levels of fish necessary to ensure stock replenishment. The mix of species used by ICES in the calculation is not consistent from stock to stock or from year to year and from 1999 onwards new measures will be used based on spawning stock size and fishing rate.

R5 State of the world's fisheries

The percentage of major marine fish resources in the world in various phases of fishery development, 1951-1994

Source: Food and Agriculture Organisation of the UN (FAO)

Reference:

- The State of the World's Fisheries 1998 - FAO, 1999;
- Chronicles of marine fishery landings (1950-1994): Trend analysis and fisheries potential, FAO Fishery Technical Paper No.359. R J R Grainger and S M Garcia, FAO, 1996.

Fisheries development have been classified as a sequence of phases; undeveloped, where there is no major fishing activity; developing, where yields are increasing; mature, where there is a high level of exploitation and stocks are fished to beyond their maximum capacity; and senescent, where stocks are over-fished and yields are in decline.

S1 Net loss of soils to development

Net loss of land to development uses, 1985-1994, England

Source: DETR

Reference: Land Use Change Statistics in England No.13, DETR statistical bulletin, (ISBN 1-85112-146-3) (volume 14 in production), <http://www.planning.detr.gov.uk/luc14>

The indicator chart shows the previous use of land which changed to developed use. This includes land developed for residential, transport and utilities, industrial and commercial, or community uses. The data illustrated are net figures, and take account of the small amounts of land which change from developed to other uses.

Details of changes in land use are recorded for DETR by Ordnance Survey as part of its map revision work in England. Changes to urban use are mostly recorded within five years of the change occurring, and so the most recent reporting year is 1994. Analysis of past years' figures shows a pattern of higher levels every five years. This is because the year of change has sometimes been rounded to the nearest multiple of five years, owing to the difficulty surveyors have in estimating an accurate year of change after a long time lag. For this reason, the indicator chart shows figures averaged over five-year periods

S2 Concentrations of organic matter in agricultural topsoils

Concentrations of organic matter in agricultural topsoils: England and Wales: 1979-1995

Source: Soil Survey and Land Research Centre

Reference: National Soil Inventory, Ministry of Agriculture Fisheries and Food (MAFF) project. The Soil Geochemical Atlas of England and Wales; (ISBN 0-7514-0088-2 - includes colour illustrations) (ISBN 0-216-93158 without illustrations)

Changes in the organic matter level, expressed here as organic carbon percentage of non-humose mineral arable topsoils have been assessed. A total of 900 National Soil Inventory sites, located on arable or ley-arable land, were resampled in 1994-1996 and the organic matter contents compared with the original samples from 1978-1981. The resampling is being extended to 782 permanent grassland sites to establish whether there has been significant change in the chemistry of these soils since the original survey.

S3 Trends in plant diversity

Changes in mean species numbers within major vegetation groups in GB: 1978 - 1990

Source: Institute for Terrestrial Ecology (ITE)

Reference:

- Countryside Survey 1990 Main Report, Barr, C.J., Bunce, R.G.H., Clarke, R.T., Fuller, R.M., Furse, M.T., Gillespie, M.K., Groom, G.B., Hallam, C.J., Hornung, M., Howard, D.C. and Ness, M.J - DOE, 1993
- Vegetation of the British Countryside - the Countryside Vegetation System. Bunce RGH, Barr CJ, Gillespie, MK, Howard, DC, Scott, WA, Smart SM, van de Poll, HM and Watkins, JW: 1999, DETR; (ISBN 1-85112-155-2).
- Measuring change in British Vegetation. Bunce RGH; Smart SM; van de Poll HM; Watkins JW; Scott WA: 1999, DETR; (ISBN 1-870393-47-3).
- Measuring change in British Vegetation. Technical Annex: Ellenberg's Indicator values for British plants. Hill OM; Mountford JO; Roy DB; Bunce RGH: 1999, DETR; (ISBN 1-870393-48-1).

Countryside Survey 1990 examined diversity in plant species through field surveys in 508 1-km squares. This followed a similar survey carried out in 1978. In 1990, vegetation data were collected from a number of plots in each of the 1-km squares. Five main plots each covering 200m², were randomly chosen in each of the 1-km squares surveyed. Up to 17 10-m by 1-m plots covering linear features such as hedges, boundaries, roadside verges, and stream banks were also selected within each square. In 1978, similar data were collected from a smaller number of plots in 256 squares.

Each vegetation plot surveyed has been classified into the distinct aggregate vegetation classes of the Countryside Vegetation System developed by ITE for DETR in 1999. The indicator shows the change in mean number of species per plot, regardless of plot size, for plots surveyed in both 1978 and 1990. The plots are allocated to the aggregate vegetation classes in which they occurred in 1978.

The results from Countryside Survey 2000 should be made available in November this year.

S4 Biodiversity action plans

Number of species and habitat action plans drawn up and costed, 1995-1999, UK

Source: Biodiversity Policy Unit, European Wildlife Unit, DETR

Reference:

- Biodiversity: The UK Action Plan. HMSO,. 1994 (ISBN 0-10-124282-4).
- Biodiversity: The UK Steering Group Report, Vols. I & II. - HMSO 1995 (ISBN 0-11- 753218-5 (Vol I), ISBN 0-11-753228-2 (Vol II)).

- Government Response to the UK Steering Group Report on Biodiversity. - HMSO., 1996 (ISBN 0-10-132602-5).
- Various publications of Action Plans by UK Biodiversity Group

The Government published its Biodiversity Action Plan in January 1994 in response to Article 6 of the United Nations Convention on Biodiversity agreed at Rio in 1992. A Biodiversity Steering Group, with members drawn from central and local government, academic institutions, industry and non-government organisations, proposed in December 1995 that a set of specific, costed targets and action plans be drawn up and implemented. The government, in its response in May 1996, welcomed and endorsed the Steering Groups main proposals. Plans for 391 priority species and 45 key habitats requiring urgent conservation action have since been agreed and published.

This temporary indicator reflects the process of preparing action plans for the agreed priority species and habitats. In the future it will be replaced by an indicator tracking progress in the implementation and achievements of all these plans, but at this stage it is too early to make such assessments.

S5 Landscape features - hedges, stone walls and ponds

Changes in characteristic countryside features: 1984-1996

Source: Institute of Terrestrial Ecology (ITE)

Reference:

- Changes in Hedgerows in Britain between 1984 and 1990, Barr, C., Howard, D., Bunce, R., Gillespie, M. and Hallam, C., (contract report to DETR) - ITE, 1991.
- Hedgerow Survey 1993 Barr, C., Gillespie, M. and Howard, D., (contract report to DETR) - ITE, 1994.
- Lowland Ponds Survey 1996, Williams, P., Biggs, J., Barr, C., Cummins, C., Gillespie, M., Rich, T., Baker A., Baker, J., Beesley, J., Cornfield, A., Dobson, D., Culling, A., Fox, G., Howard, D., Luursema, K., Rich, M., Samson, D., Scott, W., White, R., Whitfield, M., (contract report to DETR) Pond Action and ITE, 1998.

Indicator S5 shows the estimated extent of walls in GB for 1984 and 1990 and the estimated length of hedgerows in England and Wales for 1984, 1990 and 1993. Data for 1984 have been derived from a field survey of 384 1-km squares taken from all areas of the GB countryside; 1990 data come from the *1990 Countryside Survey of GB* and have been derived from a field survey of 508 1-km squares. The 1993 data for England and Wales are based on a smaller sample of 108 1-km squares. By their very nature, the survey estimates have margins of error associated with them. To minimise errors, estimates of length have been based on the largest sample available and estimates of change between survey periods. For example, 1984-90, have been derived from the largest sample for which comparable data are available

at both dates and then weighted to the stock figures from the larger data set, in this case 1990.

In the longer term it will be possible to include an assessment of the condition of hedgerows and walls. An updated survey of field boundaries and ponds throughout GB was undertaken in 1998 and results will be published as part of the Countryside Survey 2000.

The lowland pond survey was based on a stratified random sample of 150 one-kilometre squares in 'lowland' areas of Britain. The definition of a pond used for the lowland survey was 'a body of standing water 25m² to 2 ha in area which usually holds water for at least four months of the year'. This definition specifically included seasonal ponds, an ecologically important waterbody type which typically dries out in summer months.

'Lowland' areas were defined in terms of the ITE Land classification (e.g. Barr *et al.* 1993). This classification divides Britain into 32 land classes which in Countryside Survey 1990 were divided into four major landscape types: pastoral, arable, marginal and upland. 'Lowland' areas comprise the arable and pastoral landscape types and are defined by 19 of the 32 land classes.

S6 Extent and management of Sites of Special Scientific Interest (SSSIs)

Assessment of sites in England: 1997/8

Number and area of sites of special scientific interest: 1984 - 1999

Source: English Nature; Countryside Council for Wales; Scottish Natural Heritage; Department of the Environment (Northern Ireland)

Reference: all English Nature statistics are published within their Annual Reports e.g. English Nature 7th Report 1 April 1997 31 March 1998 (1998), Peterborough (ISBN 1-85716-425-3). Statistics are also available on the website at <http://www.english-nature.org.uk>

In Northern Ireland, rather than SSSIs there are Areas of Special Scientific Interest (ASSIs).

Sites of Special Scientific Interest are the best examples of our national heritage of wildlife habitats, geological features and landforms. The overall state of SSSIs in England is now based on an assessment of condition of the features of interest using the approach established in *Common Standards for Monitoring Designated Sites* (Joint Nature Conservation Committee 1997)

S9 Native species at risk

The proportion of native species which are considered threatened or nationally scarce, 1997, Great Britain

Source: Joint Nature Conservation Committee

Reference: Table 9.1, Digest of Environmental Statistics No. 20, TSO, 1998 (ISBN 0-11-753466-8).

The conservation status of four broad groups of animals and plants were categorised in 1997 as "threatened", "nationally scarce" or "other". Adequate data were not available for all species in GB and thus the assessment was not totally comprehensive but provides a "snap-shot" at this point in time.

"Threatened" species are those considered to be endangered, vulnerable or rare - based on criteria devised by the International Union for the Conservation of Nature (IUCN). A species was categorised as "nationally scarce" if recorded in only 16-100 of the 2832 10km squares in GB.

The figures for vertebrates included in this indicator are 51 species of freshwater fish, non-marine reptiles and amphibians. Comparable figures are not available for mammals and birds because their threat status is considered in the international rather than the national context. Information on the number of vertebrates that are nationally scarce is not available.

The figures for invertebrates include 15,000 species native to GB while those for "Vascular plants" relate to 2,300 seed plants, ferns and other related plants and those for "Lower plants" relate to 23,000 native species of liverworts/mosses, lichen, stoneworts, fungi, and slime moulds.

This indicator is included as a contextual indicator because it features in many international sets of indicators (e.g. United Nations Commission on Sustainable Development, Organisation for Economic Co-operation and Development, European Environment Agency, etc) but is limited by the availability of survey information. It is not meaningful to track trends for this indicator as it will be influenced by changes in scientific knowledge (eg new surveys) and may not necessarily reflect actual changes in the numbers of species at risk.

S10 Area of woodland in the UK

Area of woodland in the UK: 1924 - 1998

Source: Forestry Commission (FC); Department of Agriculture (Northern Ireland)

Reference:

- England, Scotland, Wales: Censuses of Woodland for 1924, 1947, 1965, 1980, (not adjusted for differences in definition of minimum area etc);
- Forestry Commission Facts & Figures 1998-99, October 1999 (ISBN 0-85538-452-2);
- Forestry Industry Handbook 1998, Forestry Industry Council of GB;

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- Northern Ireland from figures compiled for Annual Abstract of Statistics - TSO 1999 (ISBN 0-11-621068-0).

About 65 per cent of forests and woodland in GB are privately owned, the remaining 35 per cent owned or managed by the FC. Northern Ireland has only around 5 per cent tree cover of which nearly 80 per cent are state forests.

S11 Area of ancient semi-natural woodland in GB

Concentrations of ancient semi-natural woodland: 1999

Source: English Nature

Reference:

- Ancient Woodland Inventory held by English Nature, Peterborough
- The source for the area of Ancient Semi-Natural Woodland (317,000 hectares) was "The Future for Forestry - a framework for forestry in Great Britain", published by the Forestry Commission, and described as "Advice to the Forestry Commission from the Home Grown Timber Advisory Committee".

S13 Number of countries with National Forestry Programmes

Number of countries with National Forestry Programmes: 1998

Source: FAO

Reference: Status and Progress in the implementation of National Forest Programmes

Outcome of an FAO worldwide survey, June 1999

The FAO Forestry department carried out a survey in November 1998 to assess the status and progress of national forestry programmes and to draw lessons so that development and improvements could be made, by both the international community and individual countries.

'National forestry programmes' is a generic term for a wide range of approaches to sustainable forest management within different countries.

S15 Land covered by restoration and aftercare conditions

Land covered by restoration and aftercare conditions: 1974 1994

Source: DETR, National Assembly for Wales

Reference:

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- Survey of Land for Mineral Workings in England 1994
- Survey of Land for Mineral Workings in Wales 1988 Welsh Office, 1991.
- (Similar surveys were also undertaken by DOE in 1974, 1982 and 1988)

The Survey of Land for Mineral Workings in England is a periodic survey of the nature and extent of mineral workings in England, undertaken by Mineral Planning Authorities on behalf of the Department. The survey provides information on the total area of surface mineral workings, the area permitted for the surface disposal of mineral working deposits and the extent of underground mining. Data is also collected on the existing provisions for restoration and aftercare of sites once extraction ceases. A further survey is being undertaken in 2000.

T1 Greening government operations

Percentage reduction in energy efficiency relative to 1990/1 in the non-devolved government estate, 1994/5-1997/8 and 1999/2000 target, England

Source: DETR; Building Research Establishment

Reference: Energy Efficiency: Government Departments on Target - DETR News Release 734, 22 July 1999

The target is to improve energy efficiency by 20 per cent by 31 March 2000 relative to the 1990/1 base year value of the performance indicator. This indicator is obtained by weather-correcting energy consumption and converting to costs using standard prices for fuel (6p/kWh for electricity and 1.25p/kWh for all fossil fuels) then dividing by floor area. Conversion to money both reflects the relative costs of electricity and fossil fuel and their environmental impact, and the use of fixed prices eliminates the effects of tariff changes which distort the comparison of fuel bills.

To avoid data inconsistencies, results are shown for the government estate for 1994/5 onwards. The indicator shows the combined results for non-devolved departments based on the data from individual departments. It is not a simple average of the data, but reflects the proportion of total consumption represented by each part of the estate. Some departments have a different base year, and the individually agreed base years have been used for the purposes of this indicator.

The Ministry of Defence (MOD) estate is treated differently from the rest of the government estate. Full data for MOD for the years between 1990/1 and 1993/4 are not available. The Procurement Executive (for the MOD) has been excluded from the figures because it has undergone major estate gains and losses over the past ten years and no meaningful results can be produced. However, it is relatively small in size, accounting for just over 1 per cent of the energy consumption of the entire non-devolved government estate.

T2 Women in public appointments and senior positions

Proportion of women in public appointments, senior civil service; secondary school head teachers; and senior police officers 1970-1998.

Source: Cabinet office; Department for Education and Employment; Home Office

Reference:

- Public Bodies - TSO (ISBN 0-11-430159-X).
- Civil Service Statistics, 1998 - Cabinet Office (ISBN 0-71-150369-9).
- Equal Opportunities in the Civil Service: data summary 1998.
- Statistics of Education, Teachers, England and Wales 1999, TSO (ISBN 0-11-271079-4).

- Opportunity 2000: Benchmarking Report and Index - Spring 1999.

Data for public appointments are the proportion of women who have been appointed to the board of a public body in the United Kingdom. A full list of public bodies can be found in the Cabinet Office publication 'Public Bodies'.

Data for the civil service comes from *Mandate*, a database of civil service personnel in Great Britain. This covers about 98 per cent of civil servants, but does not include the Foreign and Commonwealth Office and a few small departments or agencies. The definition of senior civil service is all staff at the old grades 1 to 5 including the associated technical and specialist grades at the same responsibility levels.

Data for secondary school head teachers are for full-time teachers in maintained secondary schools in Great Britain.

Data for senior police officers are based on superintendent and above. This includes superintendent, chief superintendent, commanders, assistant chief constables and chief constables. This is for the 43 police force areas in England and Wales.

T3 Prices of key resources fuel

Industrial and domestic fuels prices, expressed in constant price terms, UK 1970-1998; and petrol and diesel price, both pump prices and prices excluding taxes and duty, expressed in constant price terms, UK 1980-1999

Source: Department of Trade and Industry

Reference: Digest of United Kingdom Energy Statistics 1999: tables 9.4, 9.13, 9.14, 9.15, 9.16 - TSO, 1999 (ISBN 0-11-515465-5)

Industrial fuel prices are based on the average unit value of sales to industrial customers and domestic fuel prices are those included in the Retail Price Index. Both are expressed in real terms based on 1995 price levels.

Petrol and diesel prices are generally representative of those paid on or about the 15th of the month and have been converted into quarterly averages. Estimates are provided by oil companies and since January 1995 also include figures supplied by supermarket and hypermarket chains. Prices, in pence per litre, are shown in real terms before and after taxes and duty. There have been many changes in duty on hydrocarbon oils over the period, usually annually. Details are set out in Digest of United Kingdom Energy Statistics 1999: table 9.16.

T4 Real changes in the cost of transport

Real changes in the cost of transport and disposable income, 1974-1998, United Kingdom

Source: Office for National Statistics (ONS), DETR

Reference:

- Economic Trends Annual Supplement 1999: table 1.6 TSO (ISBN 0-11-621135-0).
- Transport Statistics Great Britain 1999 edition: table 1.25, 5.7 - TSO, 1999 (ISBN 0-11-552163-1)

The indices for petrol/oil, all motoring and rail are taken from the Retail Prices Index (RPI) published by ONS. The bus index is taken from a DETR local bus fares survey. All series have been converted to real increases by using 'all items RPI'. The index for disposable income is 'Real Households disposable income', also published by ONS. All indices relate to calendar years and have been rebased to 1974 = 100.

T5 Expenditure on pollution abatement

Capital and current spending by UK industry on pollution abatement, 1997

Source: DETR; ECOTEC Research and Consulting Ltd

Reference: Environmental Protection Expenditure by UK Industry, A Survey of 1997 Expenditure: table 2 - ECOTEC, September 1999.

The industries covered in the survey are those in Standard Industrial Classification (SIC) Divisions C, D, E mining and quarrying, manufacturing, electricity gas and water supply.

Expenditure on environmental protection is defined as spending incurred where the primary aim is to reduce environmental pollution caused during normal operations i.e. expenditure to reduce or prevent emission to air or water, to protect soil and groundwater, to prevent noise and vibration, or to dispose of waste materials.

Spending includes the purchase price of capital goods, operating costs of the company's own environmental management and control activities, plus payments to others for environmental protection services including waste disposal. Capital spending includes investment in "add on" or "end-of-pipe" equipment ie capital equipment to prevent or reduce emissions at the end of the production process; and capital spending on "clean processes" to make the actual production processes cleaner.

The results of the survey have associated high statistical sampling errors (hence the relatively wide range in spending estimates given in the indicator) since the response rate to the postal questionnaire was low.

T6 Enforcement of regulations (to be developed)

Number of major and significant water pollution incidents and prosecutions, 1993-1997, England and Wales

Source: Environment Agency

Reference: Water pollution incidents in England and Wales 1998: table 20, annex B TSO, July 1999 (ISBN 0-11-310150-3)

The Environment Agency investigates all reported pollution incidents. If no evidence of pollution is found the incident is classified as unsubstantiated. If the report of pollution is confirmed, the incident is classified according to the severity of its environmental impact. Category 1 (Major) incidents are those with the highest degree of environmental impact. Category 2 (Significant) incidents are those having a significant environmental impact. Category 3 (Minor) incidents are those having only a localised environmental impact. All environmental impacts are judged according to predefined criteria. Category 1 and 2 incidents are routinely considered for prosecution. For this reason, the data used for both reported incidents and prosecutions relate to major and significant incidents only. Data for prosecutions relate to the year the incident occurred regardless of the date of the hearing.

Number of noise complaints, nuisances confirmed and remedied informally, abatement notices served and prosecutions, 1976-1997/8, England and Wales

Source: Chartered Institute of Environmental Health

Reference: Digest of Environmental Statistics No 20: 6.12 (updated) - TSO, 1998 (ISBN 0-11-753466-8)

The data on noise prosecutions presents administrative and legal action taken by local authorities in England and Wales as a result of complaints received. Where authorities have given information on total complaints received but have not given complete information on nuisances or action taken, these figures have been grossed to estimate nuisance and action taken for all reporting authorities from 1991/2 onwards.

Number of seizures of CITES-listed specimens and of bird-related incidents and prosecutions, 1990-1998, United Kingdom

Source: HM Customs and Excise, DETR

Reference: Unpublished.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has an agreed list of such species for which trade is controlled. Transgression of such controls results in seizure by HM Customs and Excise and the data report the number of cases of CITES-listed specimens illegally imported into the UK. The data on bird-related incidents and prosecutions relate to offences under section 1 of the Wildlife and

Countryside Act 1981 enforced by the police and the DETRs Wildlife Inspectorate.

T7 Public understanding and awareness

Percentage of people aware that transport and home energy use are major factors contributing to climate change, 1993-1996/7, England and Wales

Source: DETR, Public Attitudes Survey

Reference: Chapter 10, Digest of environmental statistics no. 20 - TSO, 1998 (ISBN 0-11-753466-8).

Responses are from the DETR Public Attitudes Survey in 1993 and 1996/7. For the most recent survey the estimated response rate was 55 per cent with about 1,800 adults (aged 18 or over) being interviewed face to face in their homes. The estimated sampling errors for the proportions shown are ± 2 percentage points at the 95 per cent confidence level.

Respondents were asked to select from the following eight options, which they thought were major contributions to global warming:

Destruction of forests; Emissions of carbon dioxide; Emissions from power stations; Emissions from transport; Use of gas/electricity by industry; Use of gas/electricity in home; The hole in the ozone layer; Cars not using unleaded petrol.

Emissions of carbon dioxide is the largest factor contributing to global warming, but five others factors given are also major contributors. 'The hole in the ozone layer' and 'Cars not using unleaded petrol' do not contribute to global warming. Respondents were allowed to select as many options as they wished. The indicator shows the proportion selecting the two options particularly reflecting individual actions and responsibility. This has been used as a proxy measure of awareness and understanding.

Further work will be carried out to try to develop a more robust indicator reflecting awareness of a broader range of sustainable development issues.

T8 Awareness in schools

Percentage of school leavers recalling topics covered in lessons, in 1999, in England

Source: Sustainable Development Education Panel

Reference: The report on the survey investigating the provision and attitudes towards sustainable development education can be found on the Panel website at <http://www.environment.detr.gov.uk/sustainable/educpanel/index.htm>

A two-stage survey was commissioned in 1999 to investigate the provision of and attitudes towards sustainable development education in England. The first survey consisted of interviewing staff responsible for this provision in state, independent, primary and secondary schools. The survey was carried out with the teacher with most responsibility for sustainable development issues in 751 schools. The second survey involved interviewing 1,000 children who were approaching the end of compulsory education (those in Year 11). The surveys were carried out in May and June 1999, using Computer Assisted Telephone Interviewing.

T9 Individual action for sustainable development

Percentage of people taking particular actions "on a regular basis", 1989-1996/7, England and Wales

Source: DETR, public attitudes survey

Reference: Chapter 10, Digest of environmental statistics no. 20 TSO, 1998 (ISBN 0-11-753466-8).

Responses are from the DETR Public Attitudes Survey in 1989, 1993 and 1996/7. For the most recent survey the estimated response rate was 55 per cent with about 1,800 adults (aged 18 or over) being interviewed face to face in their home. The estimated sampling errors for the proportions shown are between ± 2 and ± 3 percentage points at the 95 per cent confidence level.

Respondents were asked about personal actions they had taken for environmental reasons. For each range of possible actions, respondents were asked whether they had taken that action 'on a regular basis', 'once or a few times', or not at all in the last 12 months. The indicator shows the proportion of respondents claiming to have taken different personal actions on a 'regular basis'. Respondents for whom an action was "not applicable" have been excluded from the total (e.g. people without access to a car are excluded from those who reduced the use of cars for short journeys).

The selected actions reflect 5 issues i.e. disturbance of others, use of chemicals, recycling, use of car and purchasing green products. Further work will be carried out to try to develop a more robust indicator reflecting a greater range of sustainable development actions.

U1 Global poverty

The share of population in absolute poverty in world regions 1987-1998

Source: World Bank

Reference: World Development Indicators, 1998, table 1 - World Bank.

The definition of poverty is that used by the World Bank, defined as people living on the equivalent of less than \$1 a day at 1993 purchasing power parity prices.

U2 Net official development assistance (oda)

Official development assistance, net of loan repayments, given by the UK to developing countries expressed as a per cent of GDP, 1970-1998; and expressed in value terms, in constant 1997 prices, divided into multilateral and bilateral assistance, 1964-1997

Source: Department for International Development (DfID)

Reference: Statistics on International Development 1993/94-1997/98 (formerly British Aid Statistics): tables 15, 17 - DfID, 1998

Official development assistance (oda) is defined as those flows to developing countries and multilateral institutions which is given to promote the economic development and welfare of developing countries as its main objective, is concessional in character and has a grant element of at least 25 per cent.

Bilateral aid is provided to developing countries on a country to country basis and to institutions working in fields related to these countries. Multilateral aid is channelled through international bodies for use in or on behalf of aid recipient countries.

The United Nations (UN) target for aid (0.7 per cent), endorsed in 1970 by the UN General Assembly, is expressed in terms of net oda (ie after deduction of loan capital repayments) as a percentage of Gross National Product.

U3 Global population

Global population estimates and projections, 1950-2050

Source: United Nations

Reference: World Population Prospects: The 1998 Revision. Volume I: Comprehensive Tables. United Nations (1999). Sales No. E.99.XIII.9. (ISBN 92-1-151333-2)

The Population Division of the United Nations Department of Economic and Social Affairs (DESA) provides population estimates and projections for all countries across the world. The projections are revised every two years by incorporating the latest available demographic data, and formulating new assumptions about the future paths of fertility, mortality (including specific allowance for AIDS in 34 countries, mostly in Africa) and migration, for each country of the world. In addition to the medium variant projection, results of three other variant projections (assuming high, low or constant fertility) are also available.

U4 UK public expenditure on global environment protection

Public expenditure on global environmental protection under the Global Environmental Facility and the Montreal Protocol, UK 1991/2- 1997/8

Source: Department for International Development (DfID)

Reference: Statistics on International Development 1993/94-1997/98 (formerly British Aid Statistics): table 8 - DfID, 1998

The Global Environment Facility, launched in 1991, provides grants and concessional funds for projects and activities that aim to protect the global environment. It is jointly implemented by the United Nations (UN) Development Programme, UN Environment Programme and the World Bank. It meets recipients' agreed additional costs of meeting global environmental benefits with regard to: climate change; biological diversity; international waters; and ozone layer depletion. Funding of activities concerning land degradation - primarily desertification and deforestation, as they relate to the four main areas above, are also eligible for funding.

The Montreal Protocol on Substances that Deplete the Ozone Layer (established in 1987) is a legally binding multilateral agreement to eliminate or reduce the use of chemicals which damage the ozone layer. Through the Montreal Protocol, provision is made for the transfer of technologies and skills to enable industry in developing countries to convert to ozone-friendly alternatives. Assistance is also given to ensure that policies, strategies and institutional frameworks for phasing out of ozone-depleting substances are in place at a national level.

U6 International emissions of carbon dioxide per head

International emissions of carbon dioxide per head, 1995, selected countries

Source: World Resources Institute

Reference: World Resources 1998-9, A Guide to the Global Environment OUP, 1998 (ISBN 0-19521408-0)

The figures are based on emissions of carbon dioxide from fossil fuel burning and cement production. Tonnes per inhabitant are quoted as they provide a

better yardstick for comparing emissions resulting from an inhabitant's share of industrial activity and energy consumption. For the UK, carbon dioxide emissions are calculated by applying emission factors to statistical information, mainly on fuel consumption data as opposed to measurements at the point of emission. It is estimated that the uncertainty in carbon dioxide emission estimates is ± 4 per cent for the UK. UK national emission estimates are updated annually and any developments in methodology are applied retrospectively to earlier years.

U7 World and UK materials consumption levels per head

Global consumption of grain per head: 1995-1996

Global consumption of cement per head: 1995-1996

Source: World Wide Fund for Nature (WWF)

Reference: Living Planet Report 1999, Table 3, Page 28 - WWF International, 1999 (ISBN 2-88085-233-1)

Grain consumption

Grain and meat consumption figures come from the FAOSTAT database. Grain-equivalent consumption is calculated as the consumption of grain, plus its indirect consumption in the form of meat, plus seed, processed, and waste grain. All imports and exports of both grain and meat are taken into account. The following conversion factors were used to convert from meat into grain consumption (kg of grain per kg of meat): beef and veal 5.0; pig meat 3.5; mutton and goat 1.8; poultry 2.25.

Cement consumption

National data on cement consumption were calculated from US Geological Survey data on production plus imports minus exports from the UN commodity trade statistics database (COMTRADE). Total consumption was divided by population to give per capita consumption. Countries/territories with less than 5,000 sq km of agricultural and forest land were excluded from the main analysis.