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Department
for Environment
Food & Rural Affairs

Sustainable Development Indicators

July 2013

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Introduction

In February 2011 the government published its strategy for mainstreaming sustainability and in it gave an undertaking to publish a revised set of Sustainable Development Indicators (SDIs). This set was to replace the previous SDIs which had been maintained by Defra on behalf of government since 2001.

The previous SDI set consisted of 68 indicators comprising 126 measures. This set is formed of fewer indicators: 12 headline and 23 supplementary indicators, comprising 25 and 41 measures respectively. The reduced size of the set follows the example of other international institutions in identifying a core set of headline indicators to highlight sustainable development priorities for users and government. It was also in part prompted by the need for alignment with the Office for National Statistics' (ONS) development of national wellbeing measures, which are closely related to measures of sustainable development. Where appropriate the measures used in the indicator set also aligns with other indicator frameworks, such as those which measure progress against government departments' business plans and the Public Health Outcomes Framework.

In July 2012 Defra published a consultation on the reduced set of indicators. The government's response to this consultation was published in June 2013 and this National Statistics publication marks the first edition of the new SDIs.

The indicators provide an overview of national progress towards a more sustainable economy, society and environment. The SDIs are used as a means of assessing whether the nation as a whole is developing sustainably, and as a means for policy-makers to identify more sustainable policy options. They are not used to evaluate individual policies due to their high-level nature.

The SDIs are designated National Statistics by the UK Statistics Authority. Assessments of compendium publications against the Code of Practice for Official Statistics relate to the processes involved in preparing the publication and its presentation. This can broadly be interpreted as meaning that the statistics meet identified user needs, are well explained and readily accessible, are produced according to sound methods and are managed impartially and objectively in the public interest.

Understanding the indicators

These indicators have been developed by drawing on previous versions of the Sustainable Development Indicators as well as on discussions with different government departments and feedback from the 2012 public consultation[1]. Where appropriate they align with existing measures used across other indicator sets such as ONS's National Well-being measures or the Department of Health's Public Health Outcomes Framework. The rationale for choosing the individual indicators is included at the beginning of each section, with web links to broader information provided at the end. A short statistical commentary highlighting and explaining the main messages from the indicator has also been presented.

For each indicator, one or more charts are provided which show the data from 1990 or from the earliest year for which data is widely available after 1990. A minority of charts show data back to 1970; this is either because the long term trend is useful context (such as with population demographics) or because the indicator is widely presented in this way in other publications (such as the wild bird populations).

Some of the indicators are presented as an index, where a baseline year (for example 1990) is set as 100 and subsequent years are shown in relation to that value. This can mean that trends for measures with different units can be more easily compared.

Where possible the indicators have been presented for England. Where data availability does not allow this, indicators may be presented for England and Wales combined or for the UK as a whole.

Traffic light assessment

When changes in the indicator measures are small it can be difficult to judge whether they are sufficient to indicate that there has been clear improvement or deterioration. For this reason each measure has been assessed using a set of 'traffic lights'. They do not show whether the measure has reached any published or implied targets; rather, they show whether changes in the trends are showing clear improvement or deterioration.

The traffic lights are determined by identifying a period over which to assess change and comparing the value of the measure in the base or start year with the value in the end year. Where data are available, two assessment periods have been used:

[1] https://www.gov.uk/government/consultations/consultation-on-new-sustainable-development-indicators

- Long-term – an assessment of change since the earliest date for which data are available (usually back to 1990). If the earliest data available is for after 2000, no long term assessment is made.
- Short-term – an assessment of change for the latest five year period.

The traffic lights only reflect the overall change in the measure from the base to latest year and do not reflect fluctuations during the intervening years.

The individual measures also have a third marker showing the direction of change between the two most recent data points. This period is too short for a meaningful assessment. However, when it exceeds a one percentage point threshold, the direction of change is given simply as an acknowledgement of very recent trends and as a possible early sign of emerging trends.

Making the assessment

The traffic light assessments are as follows:

 Improving

 Little or no overall change

 Deteriorating

Where data are not available for the relevant time period an assessment is not given. For example, if data are only readily available for after 2000 a long term assessment cannot be made. This is depicted as:

 Not yet assessed due to insufficient or no comparable data

Where possible the traffic light assessment has been made by evaluating trends using statistical analysis techniques. The assessment may be made by Defra statisticians in collaboration with the data providers or undertaken by the data providers themselves. A green or red traffic light is only applied when there is sufficient confidence that the change is statistically significant and not simply a product of random fluctuations.

For some indicators, it is not possible to formally determine statistical significance and in such cases the assessment has been made by comparing the difference between the value of the measure in the base or start year and the value in the end year against a ‘rule of thumb’ threshold. The standard threshold used is three percentage points. Where an indicator value has changed by less than the threshold of three percentage points the traffic light has been set at amber, signifying no overall change. The choice of three percentage points as the threshold is arbitrary but is commonly used across other government indicators and has proven to be helpful in deciding the most appropriate traffic light.

A minority of indicators do not have an assessment at all. This may be for a number of reasons:

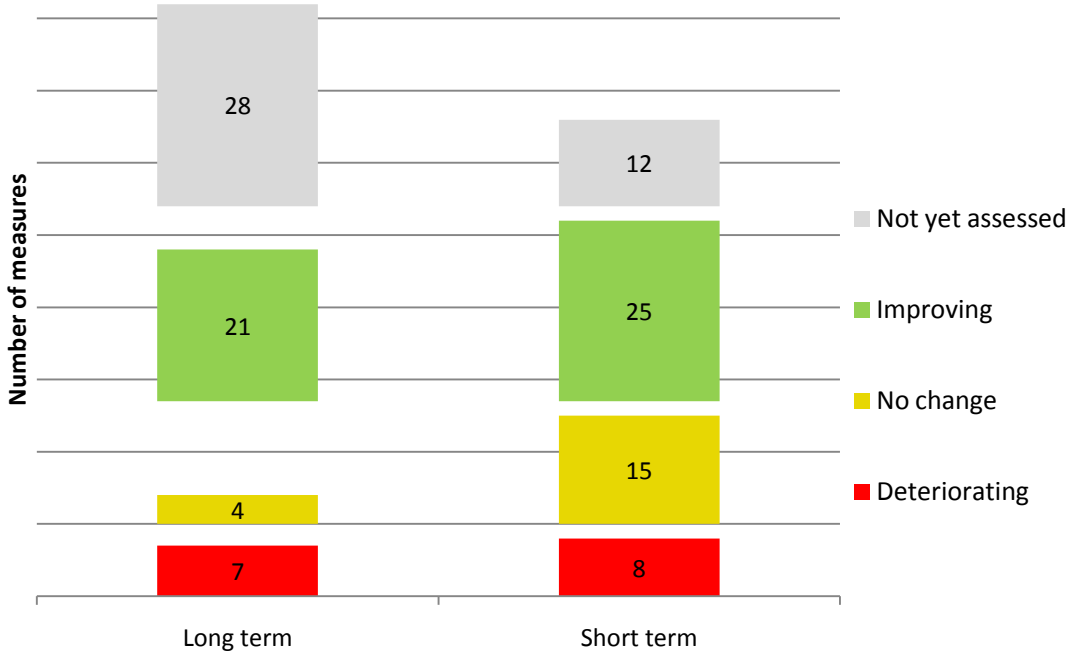
- The indicator is for context, where no action from government would intentionally affect change (for example projected population estimates)
- The indicator is based on forecasts or projections and as such the assessment year is unclear (for example forecasts of public sector net debt and borrowing)
- There is no clear ‘favourable’ direction of travel (for example with land use or origins of food). A full explanation of the reasons for this is given in the relevant section.

Use of this approach is kept under review, and may be amended depending on the outcome of the Office for National Statistics’ investigation into measuring change for the National Well-being measures.

Summary of assessments

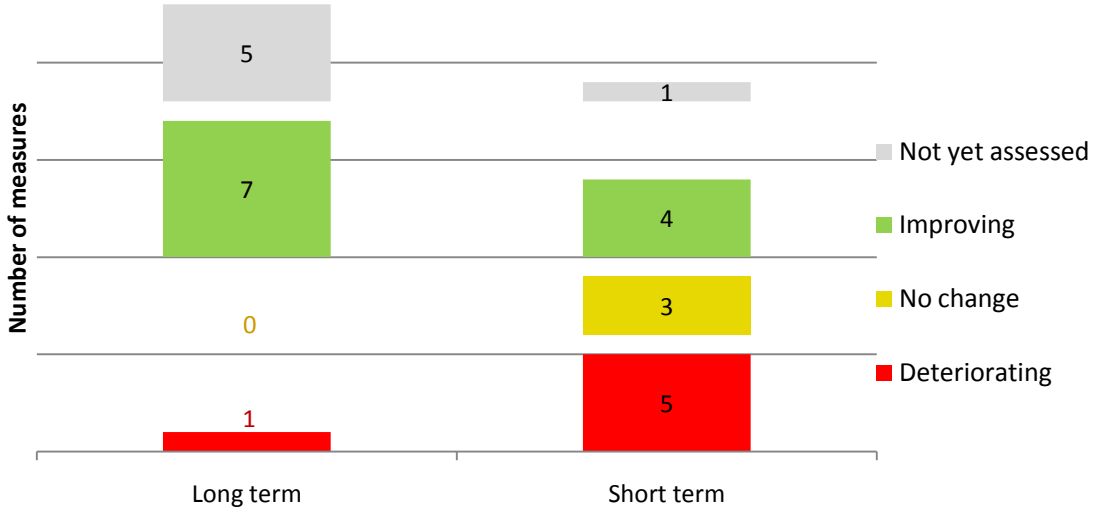
The charts below show the number of measures which are showing improvement, deterioration or no change in the long and short term. The assessments for all measures are presented in the tables at the end of this section.

Long and short term assessments for all measures



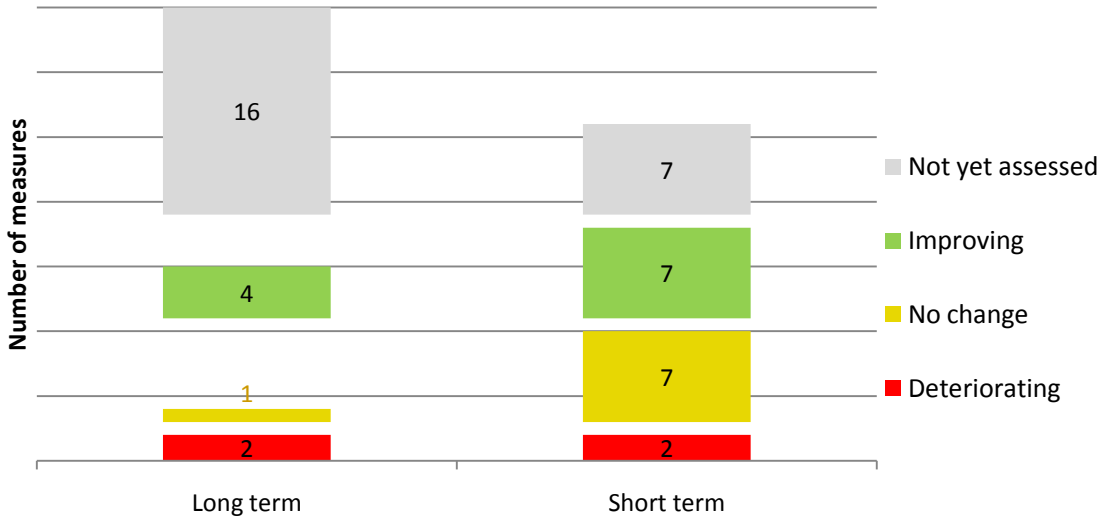
- Over a third of measures (21 out of 59) were showing improvement over the long term, increasing to over 40 per cent (25 out of 59) in the short term.
- There was little change in the number of measures showing deterioration between the long term and short term periods.
- Due to increased data availability assessments were available for more measures over the short term period.

Long and short term assessments of economy measures



- Economy measures showing improvement include over the long term include GDP, median income and poverty, though over the short term assessment period these measures have either shown deterioration or no change.
- Economic indicators showing improvement in the short term include human capital and physical infrastructure.
- More of the economy measures show deterioration in the short term than over the long term. The short term assessment is made over the last five years and for the majority of measures this gives a baseline of 2006 or 2007. This preceded the economic downturn and global recession in 2008 and this may explain a higher number of economy measures showing deterioration since this baseline.

Long and short term assessments of society measures

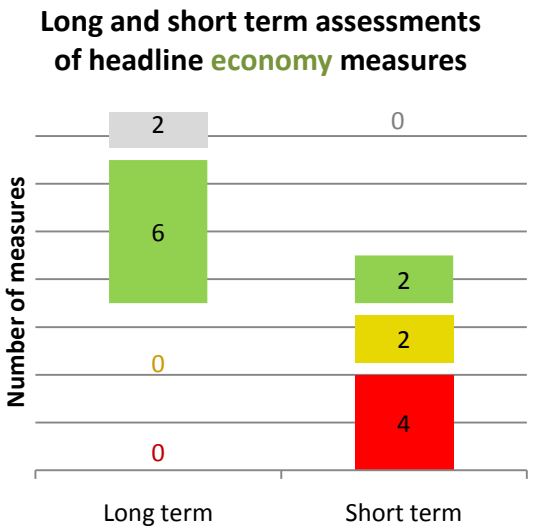


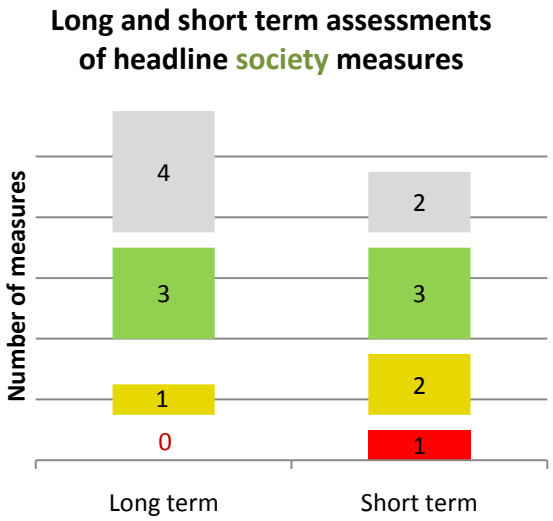
- Although many of the measures were not able to be assessed over the long term, over the short term there has been an increase in the number of measures showing improvement or no change.
- Examples of society measures showing improvement are healthy life expectancy, social mobility, avoidable mortality and infant health.
- Over the short term, the measures for fuel poverty and housing provision showed deterioration. For the latter this may be the result of the baseline year coinciding with the peak of the housing market.

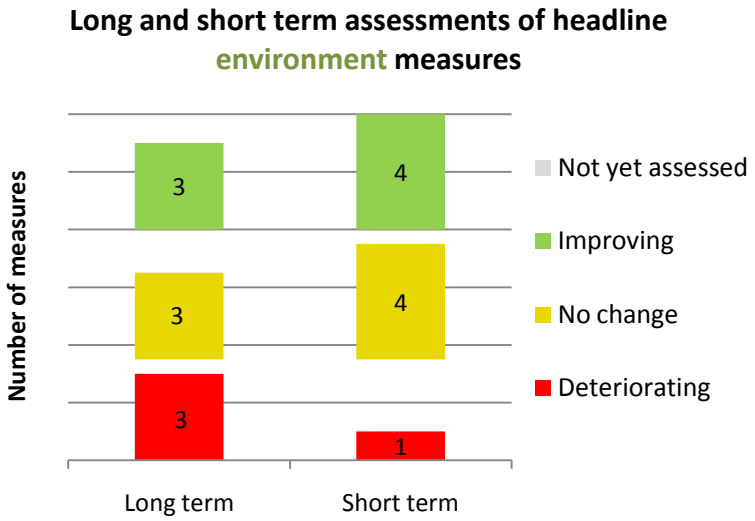
Long and short term assessments of environment measures

- The majority of the environment measures showed improvement in the long and short term. Examples of measures showing improvement were water use, greenhouse gas emissions, renewable energy consumption and the energy efficiency of existing housing.
- Measures showing deteriorating over the long term were farmland and woodland bird populations, emissions form transport and emissions from UK consumption. In the short term only the farmland bird population measure shows deterioration.

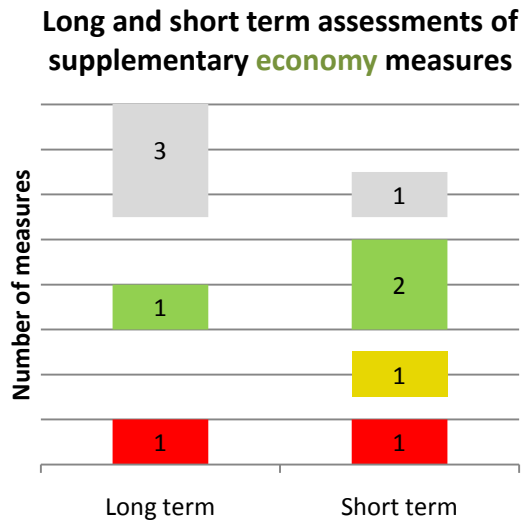
Headline measures by theme

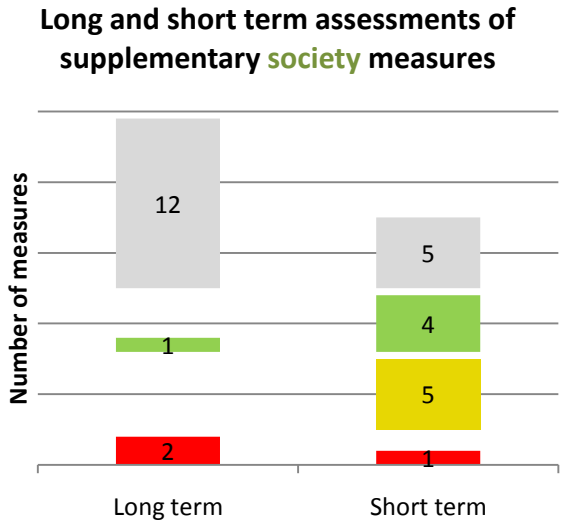


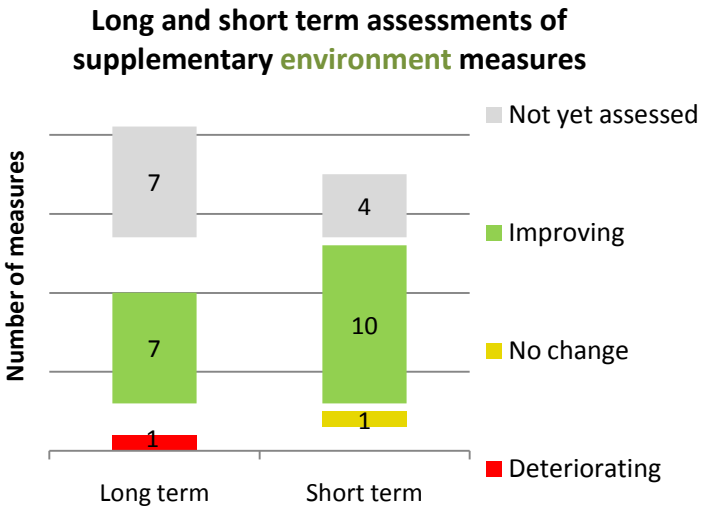




Supplementary measures by theme







Headline measures

			Long term	Short term
Economy				
1	Economic prosperity	GDP		
		GDP per head		
		Median income		
2	Long term unemployment	Proportion of adults unemployed over 12 months		
3	Poverty	Proportion of children in relative low income households (before housing costs)		
		Proportion of children in absolute low income households (before housing costs)		
4	Knowledge and skills	Human capital (£) stock		
		Human capital per head		
Society				
5	Healthy life expectancy	Healthy life expectancy at birth: males		
		Healthy life expectancy at birth: females		
6	Social capital	Proportion of people engaging in actions addressing issues of public concern		
		Proportion of people who have a spouse, family member or friend to rely on if they have a serious problem		
		Proportion of people engaging in any volunteering activity		
		Proportion of people agreeing that people in their neighbourhood can be trusted		
7	Social mobility in adulthood	Proportion of adults from less advantaged groups in managerial or professional positions		
8	Housing provision	Net additional dwellings		
Environment				
9	Greenhouse gas emissions	UK greenhouse gases emissions		
		Greenhouse gas emissions associated with UK consumption		
10	Natural resource use	Raw material consumption of non-construction materials		
		Raw material consumption of construction materials		
11	Wildlife: bird population indices	Farmland birds,		
		Woodland birds		
		Seabirds		
		Water and wetland birds		
12	Water use	Abstractions from non-tidal surface waters and ground waters		

Supplementary measures

			Long term	Short term
Economy				
13	Population demographics	Population estimates and projections	n/a	n/a
		Household estimates and projections	n/a	n/a
14	Debt	Public sector net debt and public sector net borrowing as proportions of GDP to 2017/18	n/a	n/a
15	Pension provision	Percentage of eligible workers in a workplace pension		
16	Physical infrastructure	Total non-financial assets net worth		
17	Research and development	Expenditure on R&D performed in UK business		
		Expenditure on R&D related to environmental protection expenditure		
18	Environmental goods & services sector	Value of the environmental goods and services sector		
Society				
19	Avoidable mortality	Mortality from deaths considered avoidable		
		Mortality from deaths considered amenable		
		Mortality from deaths considered preventable		
20	Obesity	Proportion of children overweight and obese (2-15 year olds)		
		Proportion of adults overweight and obese		
21	Lifestyles	Prevalence of smoking in adults		
		Proportion of adults doing 150 minutes of exercise per week		
		Proportion of urban trips under 5 miles taken by walking or cycling		
		Proportion of urban trips under 5 miles taken by public transport		
		Average daily consumption of fruit and vegetables		
22	Infant health	Incidence of birth weight less than 2,500g in full term live births in England		
23	Air quality	Number of air pollution days classed as moderate or high - urban		
		Number of air pollution days classed as moderate or high - rural		
24	Noise	Proportion of the population affected by noise		
25	Fuel poverty	Number of households in fuel poverty		

			Long term	Short term
Environment				
26	UK CO2 emissions by sector	Energy supply		
		Transport		
		Business		
		Residential		
		Other		
27	Energy consumed in the UK from renewable sources	Proportion of gross energy consumption from renewable sources		
28	Housing energy efficiency	Mean SAP ratings of existing housing		
		Mean SAP ratings of new housing		
29	Waste	Proportion of household waste recycled		
		Proportion of construction and demolition waste recovered		
30	Land use & development	Land use by type	n/a	n/a
31	Origins of food consumed in the UK	The origins of food consumed in the UK by region.	n/a	n/a
32	River water quality	Proportion of rivers with biological quality classed as good or high		
		Proportion of rivers which pass on chemical status		
33	Fish stocks	Proportion of fish stocks harvested sustainably		
34	Status of species & habitats	Number of priority species that are stable or increasing		
		Number of priority habitats that are stable or increasing		
35	UK Biodiversity impacts overseas	To be developed in line with biodiversity indicators	n/a	n/a

* N/a means that the indicator is presented for context or there is no clear favourable direction of progress.

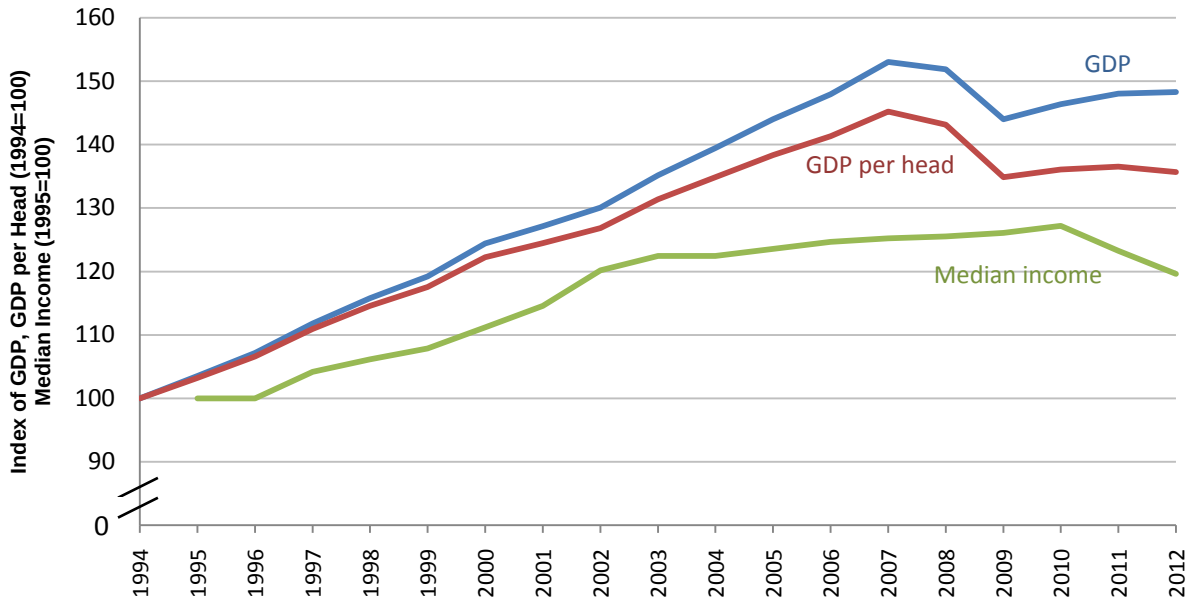
Headline Indicator

1. Economic Prosperity

Comparisons of GDP, GDP per head and median income

Gross Domestic Product (GDP) measures the scale of economic activity (goods and services produced) within a country. GDP per head (also known as per capita) is equivalent GDP per individual in the population which allows us to take into account the effects of changes in the population size. Median income[2] is a measure of disposable income and is a reflection of the economic prosperity of individuals as opposed to the country. This is important to include as GDP does not reflect the level of economic prosperity experienced by people on a daily basis.

Figure 1.1: Indices of GDP, GDP per head and median income, UK, 1994 to 2012



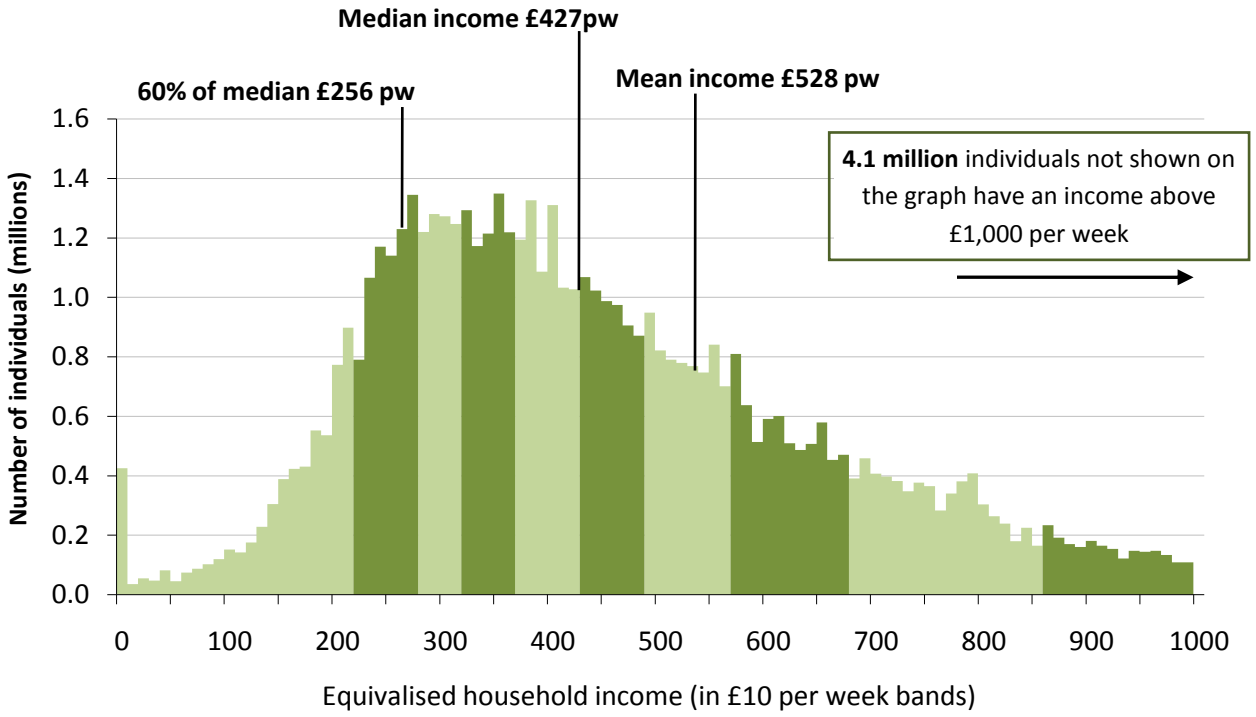
Source: ONS.
Notes: GDP and GDP per capita from ONS Blue Book 2012 edition. Median Income is from DWP's households below average income publication. Median income is presented in financial years, such that 2011 represents 2010/2011, it is income before housing costs. All figures are adjusted for inflation to represent change in real terms.

- GDP peaked in 2007 and then declined as the country entered recession. Although GDP has increased since the 2008 recession, it remains below 2007 levels. The decline in GDP per head since 2007 shows that the population has been growing faster than GDP in recent years
- After rising fairly steadily since 1995, median incomes fell for the first time between 2010 and 2011 and have continued to decrease through 2012.

Examining income distribution can reveal the inequalities implicit in household income. Income distribution displays the spread of household income under £1000 per week.

[2] Median income is commonly considered to be a better representation of income distribution. The use of mean income would be skewed by the extremely wealthy. The median income is the amount at which income distribution can be split into two groups where half of the population would be above the median income and half would be below.

Figure 1.2: Income distribution for the whole population BHC, UK, 2011/12



Source: DWP Households Below Average Income, 2011/12, Before Housing Costs

- In 2011/12 median income was £427 per week whilst the mean income was £528 per week. This discrepancy is due to the mean being skewed by very high earners.
- The most commonly used threshold to determine if someone is in relative low income, 60 per cent of median income, was £256 per week, before housing costs. The income distribution showed a high concentration of individuals close to this relative low-income threshold.

Indicator Assessment

	Long term	Short term	Latest year
GDP	(1994)	(2007)	No Change
GDP Per Head	(1994)	(2007)	No Change
Median Income	(1994)	(2007)	Decreased

Links

Organisation	Subject
Office for National Statistics	ONS Blue Book
	GDP Deflators
Department for Work and Pensions	Households Below Average Income

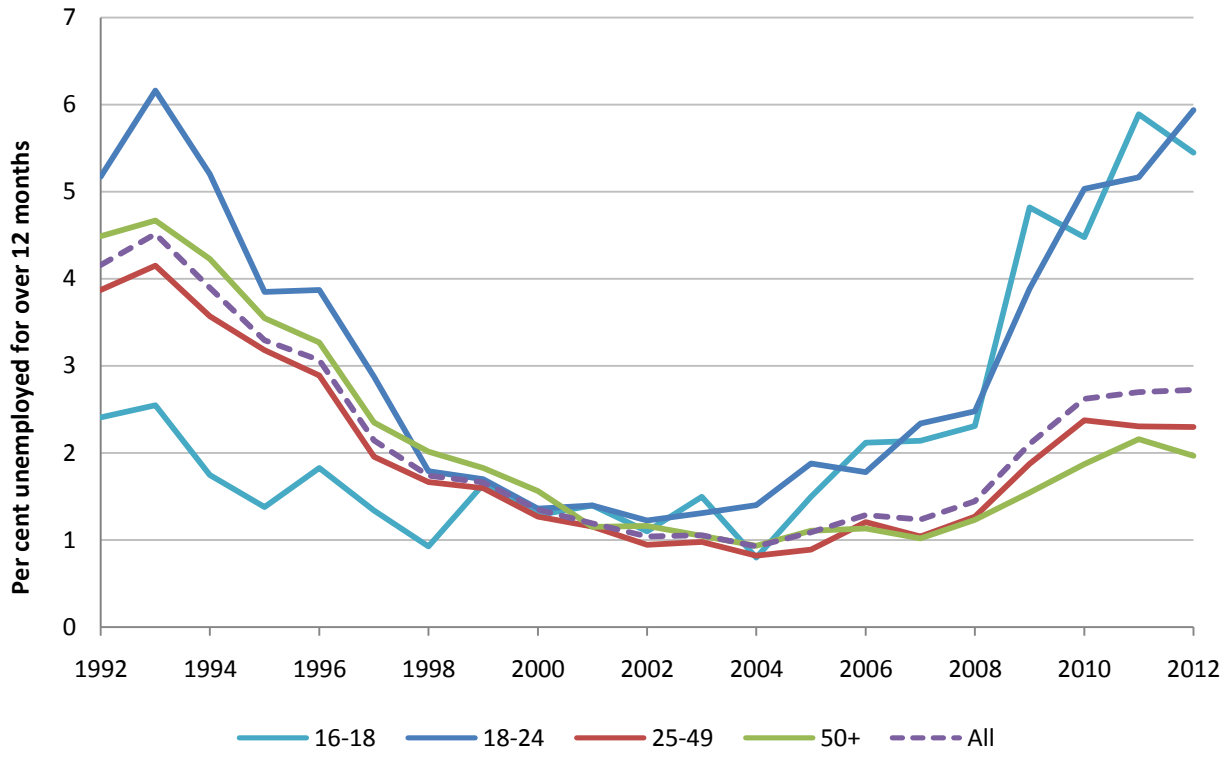
Headline Indicator

2. Long Term Unemployment

Proportion of economically active adults unemployed[3] for over 12 months by age group

An extended period of unemployment can impact on individuals and families, through loss of income, social isolation, sense of worth and other factors. Employment enables people to meet their needs and improve their living standards and is an effective and sustainable way to tackle poverty and social exclusion for those who can work.

Figure 2.1: Percent of economically active adults unemployed for over 12 months by age group, UK, 1992 to 2012



Source: ONS – UNEM01: Unemployment by Age and Duration

- The proportion of all people who had been unemployed for over 12 months rose less than 0.1 percentage point rise between 2011 and 2012 to just over 2.7 per cent. After a steady decline between the early 1990s and 2004, there was a 1.8 percentage point rise between 2004 and 2012.

[3] ILO definition – "Looked for work in the last 4 weeks and available to start job within 2 weeks, or waiting to start a job. Duration of unemployment is the length of time the respondent reports they have been looking for work (or the period since they left their last job if that is shorter). Its accuracy depends on respondent recall, and it is not possible to measure for certain whether the respondent was unemployed for a continuous period of 12 months or more. Trends in these figures may be affected by welfare reforms that are helping people previously in receipt of inactivity benefits to start looking for work and become unemployed. Many of these people will have been out of work for an extended period of time and are therefore more likely to report that they have been looking for work for 12 months or more, even if that didn't involve active job search.

- For 18 to 24 year olds, unemployment over 12 months is relatively unchanged since 1992. Although in the interim the rate dropped notably in the mid to late 90s before rising again. This drop was noticeable in all age groups. There are lower rates of long term unemployment in 2012 for 25 to 49 year olds and over 50s, as compared to 1992. Long term unemployment was higher in 2012 for 16 to 18 year olds than it was in 1992.

Indicator Assessment

	Long term	Short term	Latest year
Percent of adults unemployed over 12 months	 (1992)	 (2007)	Increased

Links

Organisation	Subject
Office for National Statistics	Unemployment Figures

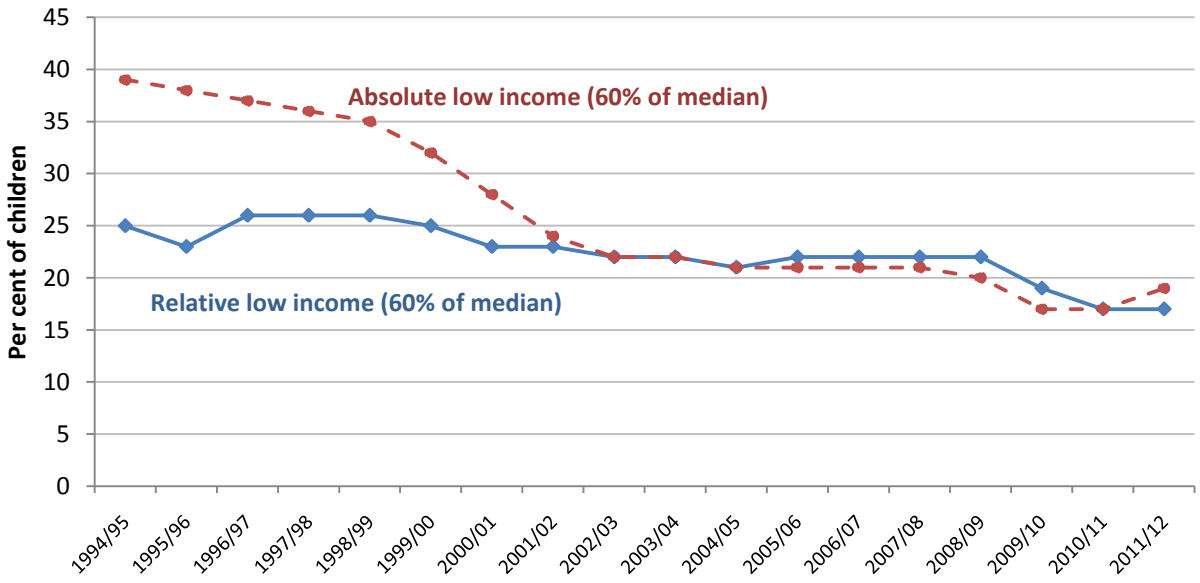
Headline Indicator

3. Poverty

Proportion of children in low income households

Poverty can perpetuate from one generation to the next and the proportion of children in poverty is therefore a key issue for intergenerational wellbeing. Poverty is currently measured based on the proportion of children living in households with incomes below 60 per cent of the median.

Figure 3.1: Proportion of children in relative and absolute low income households Before Housing Costs, England, 1994/95 to 2011/12



Source: Department for Work and Pensions, Households Below Average Incomes series.
Notes:

1. A household is considered to be in *relative* low income if it receives less than 60 per cent of the average income in the year in question. A household is in *absolute* low income if they receive less than 60 per cent of average income in 2010/11 adjusted by inflation.
2. Figures for England have been presented on a single year basis and will therefore be different from those published in the HBAI 2011/12 publication.
3. This analysis uses a 'Before Housing Costs' measure. This maintains consistency with targets set out in the Child Poverty Act and the broader set of income measures in the Child Poverty Strategy. International comparisons are also calculated this way. When considering the living standards of children, measures After Housing Costs can underestimate the true standard of living as a family may make a choice to spend more on rent or mortgage to attain a higher standard of accommodation.

- At 17 per cent for 2011/12, relative low income before housing costs in England remained at its lowest rate since the series started in 1994/95, with much of the reduction since 1998/99 driven by increased entitlements to state support.
- The proportion of children in England living in relative low income households has fallen since the mid-1990s levelling off in the mid-2000s before declining to 2010/11 then stabilising. The stabilisation in relative low income between 2010/11 and 2011/12 is because incomes for families with children at the lower end of the income distribution fell at the same rate as incomes around the median.

- At 19 per cent there has been a two percentage point increase in absolute low income before housing costs between 2010/11 and 2011/12.
- The increase in the proportion of children living in absolute low income households is because RPI inflation rose faster than incomes did for households with children.

Indicator Assessment

	Long term	Short term	Latest year
Children in relative low income households	(1994/95)	(2006/07)	No change
Chidren in absolute low income households	(1994/95)	(2006/07)	Increased

Links

Organisation	Subject
Department for Work and Pensions	Households Below Average Income

Headline Indicator

4. Knowledge and Skills

Value of human capital (£)

Human capital is defined as “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (OECD, 2001).

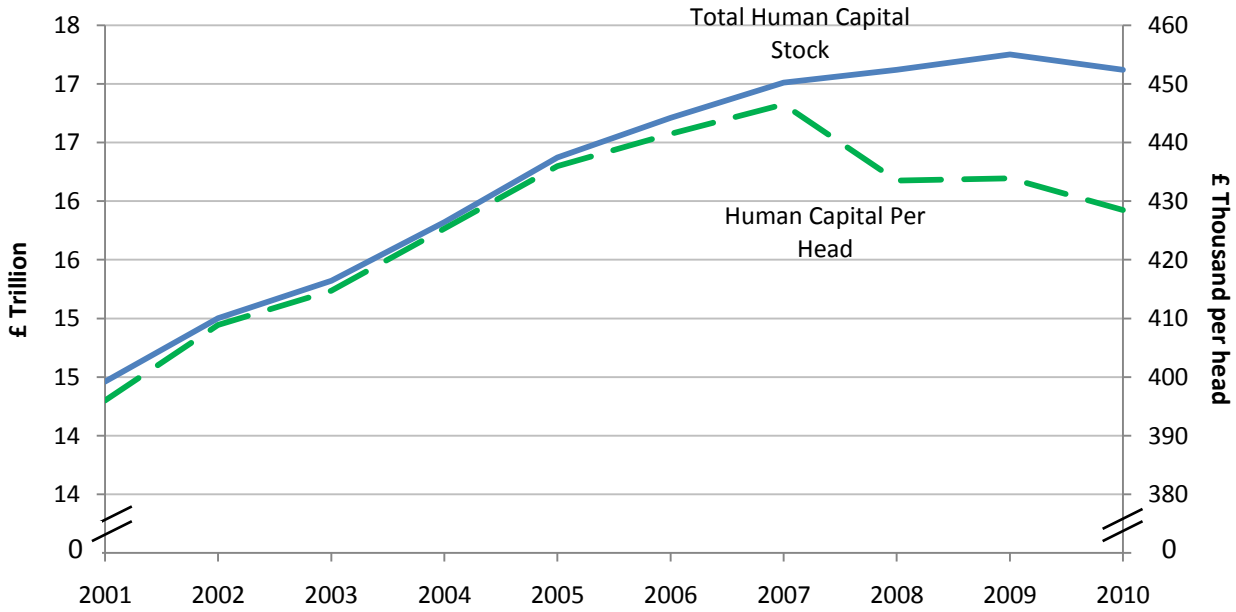
Human capital is recognised as having important economic benefits; for example there has been found to be a link between increased human capital (as measured by qualifications) and economic growth[4], whereby countries with higher levels of human capital will have the greatest potential for long term sustainable economic growth, other things being equal. Human capital has also been linked to positive health outcomes and social capital. More detail on this is given in ONS’s 2011 article on human capital, linked at the end of this section.

For this indicator, the measurement of human capital has been restricted to people’s skills and competences. This measure is based on the value of qualifications acquired during participation in formal education, including early childhood education, school-based compulsory education, post-compulsory vocational or general education, tertiary education, labour market education and adult education. As the population grows, changes in human capital can be masked when looking at the stock measure, and we have therefore also presented human capital per head.

This measure of human capital is currently experimental. Measures of human capital are still being developed and may have a slightly different form in future.

[4] E.g. Barro, R. J. and Sala-i-Martin, X. (2004). *Economic growth* (2nd Edition). Boston: MIT Press.

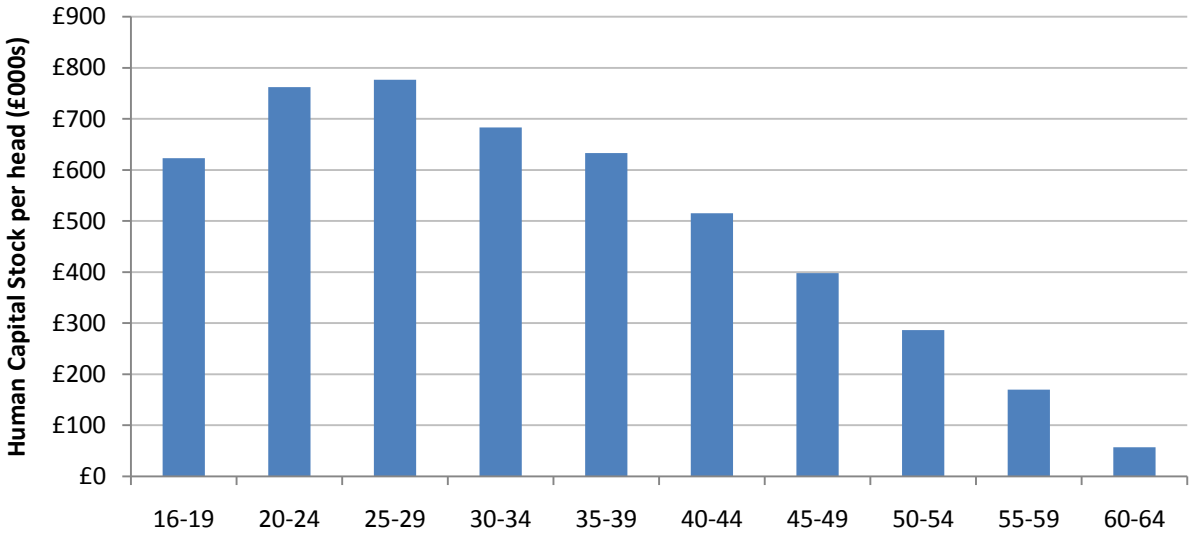
Figure 4.1: Human capital stock (£ trillion) and human capital per Head (£ thousand), UK, 2001 to 2010



Source: ONS Notes: Figure in 2010 prices.

- The value of total human capital stock fell from £17.25 trillion in 2009 to £17.12 trillion in 2010. Human capital has risen by £2.76 trillion between 2001 (£14.46 trillion) and 2010.
- Human capital per head grew steadily between 2001 and 2007 before dropping in 2008. Although total human capital stock increased, the size of the working age population rose quicker resulting in a decrease in per head value. Human capital per head is currently £428,500, which is £18,000 lower than the 2007 peak of £446,500 per head.

Figure 4.2: Human capital stock (£000) per head by age group, UK, 2010



Source: ONS

- Human capital measures broken down by age group show that human capital per head is highest for 25 to 29 year olds, decreasing as age increases. This is because while older people typically have a higher income and more experience, younger people have more years of paid employment remaining which leads to them having higher human capital.
- Without a comparison over time it is difficult to make assessments about how the age distribution affects long term sustainability.

Indicator Assessment

	Long term	Short term	Latest year
Value of Human Capital Stock		 (2005)	Decreased
Value of Human Capital per Head		 (2005)	Decreased

Links

Organisation	Subject
Office for National Statistics	Human Capital Estimates

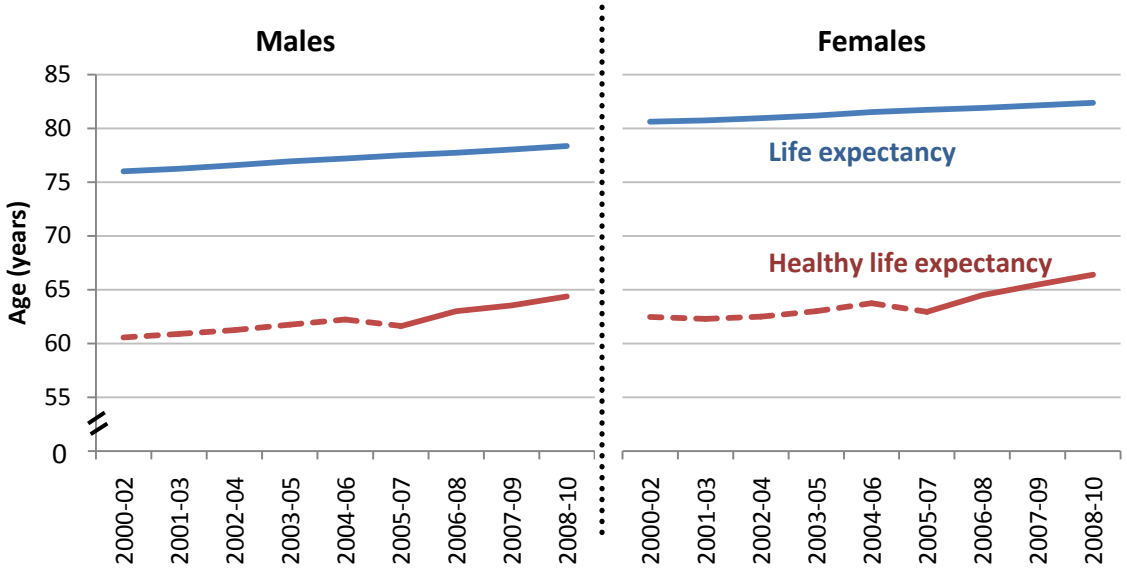
Headline Indicator

5. Healthy Life Expectancy

Healthy life expectancy at birth

As life expectancy continues to increase, it is important to understand whether our increasing longevity is accompanied by longer periods in favourable or unfavourable health states. Variations in the proportion of life spent in good health have impacts on and general health and wellbeing as well as having potentially significant implications for future healthcare resource need and fitness for work in the face of planned state pension age increases.

Figure 5.1: Years of life expectancy and healthy life expectancy at birth, England, 2000-02 to 2008-10



Source: Office for National Statistics
Notes: The methodology for healthy life expectancy data changed in 2005-07. The figures shown for years prior to 2005-07 are simulated estimates based on the new methodology

- Healthy life expectancy in England is increasing for both males and females. The proportion of life spent in very good or good health increased between 2005-07 and 2008-10, so both men and women could expect to spend longer periods of their longer lives in good or very good health.
- Females have higher life expectancy and healthy life expectancy than males. This can be explained by a number of factors; for example higher rates of obesity, alcohol consumption and smoking amongst men are all statistically associated with increased risk of mortality and morbidity. Further explanations are provided in an article on LE and HLE by ONS (listed at the end of this section).

Deprivation

There are inequalities in life expectancy and health expectancy by area deprivation, with more deprived areas having lower life expectancy and health expectancy. When the

data are available in future this section will present a basic analysis of healthy life expectancy by area deprivation. Statistics on disability-free life expectancy by area deprivation are available via the link at the end of this section.

Indicator Assessment

	Long term	Short term	Latest year
Healthy life expectancy at birth: males	(2000-02)	(2003-05)	Increased
Healthy life expectancy at birth: females	(2000-02)	(2003-05)	Increased

Links

Organisation	Subject
Department of Health	Public Health Outcomes Framework
Office for National Statistics	Health Expectancies at Birth
	Disability-free life expectancy by area deprivation
	Health Expectancies in 2008-10 article

Headline Indicator

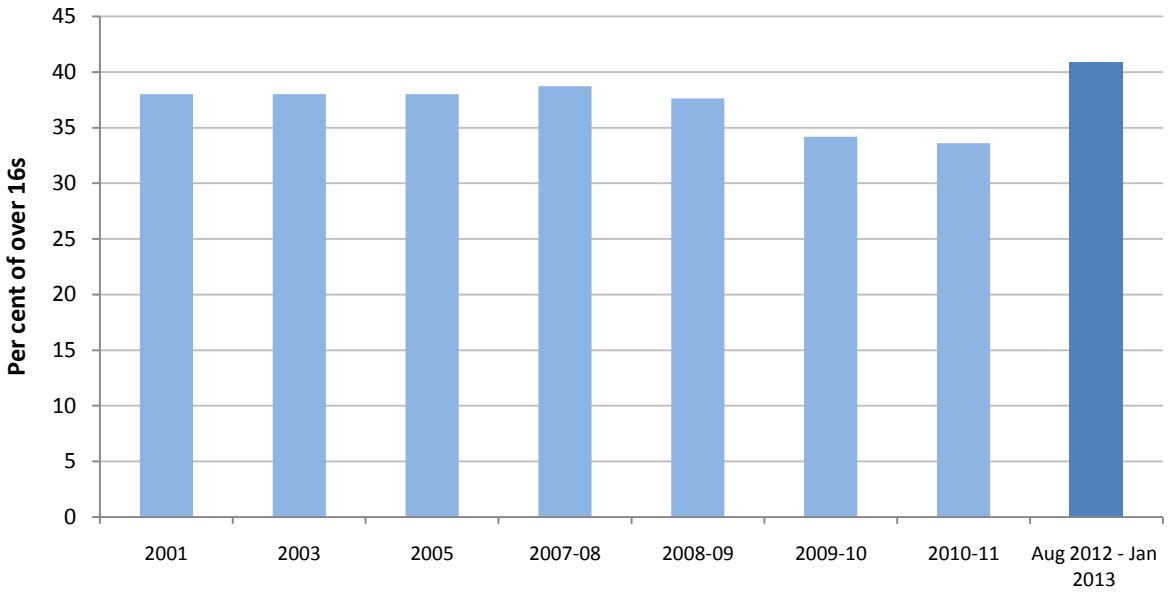
6. Social Capital

Civic participation, social participation, social networks and trust

This section presents some example measures within the wide-ranging area of social capital. Social capital can be described as the pattern and intensity of networks among people and the shared values which arise from those networks. While definitions vary, the main aspects include citizenship, 'neighbourliness', social networks and civic participation[5]. These measures may change slightly over time as Cabinet Office and the Office for National Statistics further develop their work on measuring social capital

The indicators in this section have been chosen to reflect four domains of a framework on social capital developed by the Office for National Statistics[6]. These four domains are: *civic participation*, which relates to individual involvement in local and national affairs and perceptions of ability to influence them; *social participation*, which means involvement in, and volunteering for, organised groups; *social networks*, which refers to contact with, and support from, family and friends; and *reciprocity and trust* which refers to the amount of trust individuals have in those they know and do not know, as well was trust in formal institutions.

Figure 6.1: The proportion of people engaging in actions designed to identify and address issues of public concern at least once a year, England, 2001 to Q3 2012/13

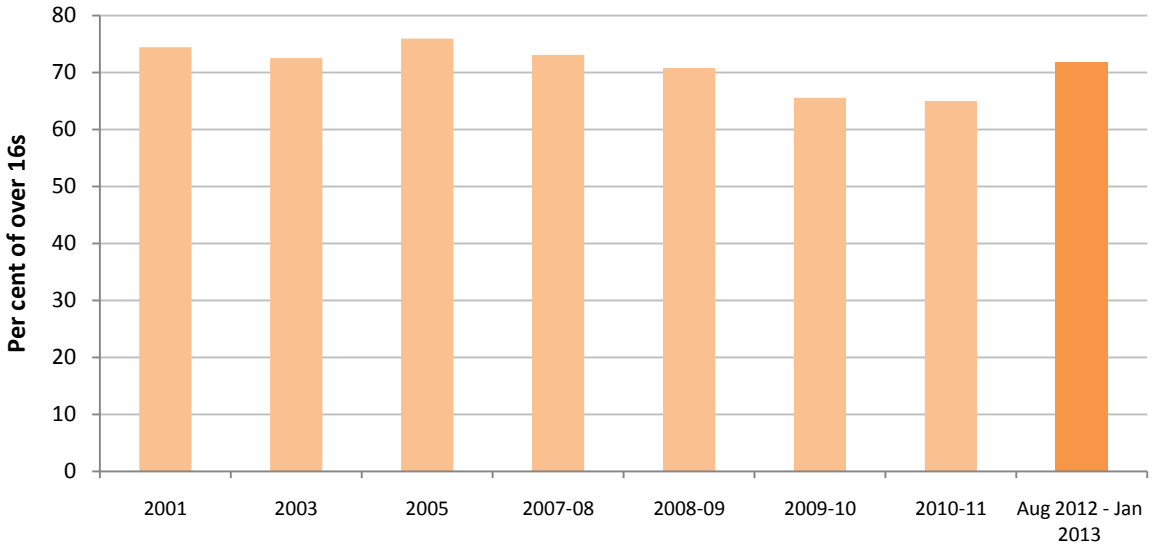


Source: Citizenship Survey, DCLG; Community Life Survey, Cabinet Office
Notes: Data for 2001-2010/11 collected via the Citizenship Survey. Data for 2012/13 onwards is collected via the Community Life Survey. The question measuring civic participation was updated in 2012/13 to include online participation and so the trend data is not directly comparable

[5] http://www.ons.gov.uk/ons/guide-method/user-guidance/social-capital-guide/the-social-capital-project/guide-to-social-capital.html
[6] http://www.ons.gov.uk/ons/rel/environmental/social-capital-indicators/review-paper/social-capital-indicators.html

- This measure relates to civic participation. In 2012/13, 41 per cent of people engaged in actions addressing issues of public concern, including online activities.
- Between 2001 and 2010/11 the proportion of people engaging in actions addressing issues of public concern decreased significantly. The subsequent increase in 2012/13 is not comparable with earlier years' data due to question being extended to include online participation.

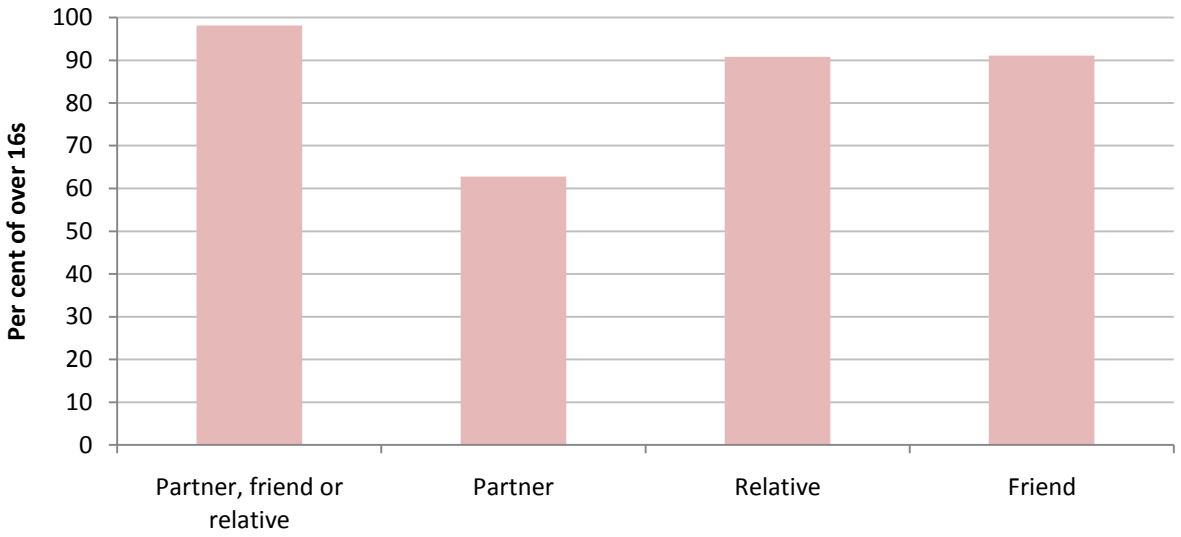
Figure 6.2: The proportion of people engaging in any volunteering activity at least once a year, England, 2001 to Q3 2012/13



Source: Citizenship Survey, DCLG; Community Life Survey, Cabinet Office
Notes: Data for 2001-2010/11 collected via the Citizenship Survey. Data for 2012/13 onwards is collected via the Community Life Survey. 'Any volunteering' includes participation in either formal or informal volunteering

- This measure relates to social participation. The proportion of people volunteering either formally or informally decreased from 74 per cent in 2001 to 72 per cent in 2012/13.
- From a peak of 76 per cent of people engaging in some kind of volunteering in 2005 this proportion declined by 11 percentage points to a low of 65 per cent in 2010/11.
- Between 2010/11 and 2012/13 there was an increase of seven percentage points back to 2007/8 levels.

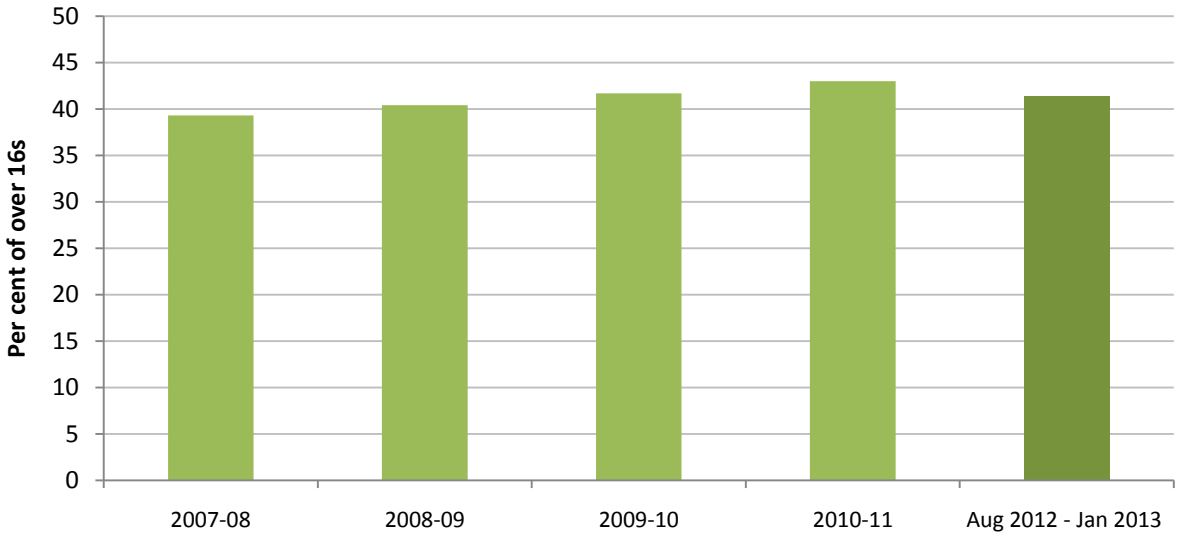
Figure 6.3: The proportion of people who have a partner, family member or friend to rely on if they have a serious problem, England, 2010/11



Source: Understanding Society, 2010/11.
Notes: Based on the proportion of respondents agreeing that they had a partner, friend or family member they could rely on' a lot', 'somewhat' or 'a little' if they had a serious problem. Proportions are calculated from all over 16s and not only those who have said they have a partner, friend or relative.

- This measure gives an insight into the social networks available to individuals. In 2010/11 almost all (98 per cent) of adults in England had a friend, relative or partner they could rely on at least a little if they had a serious problem.

Figure 6.4: The proportion of people agreeing that people in their neighbourhood can be trusted, England, 2007/08 to Q3 2012/13



Source: Citizenship Survey, DCLG; Community Life Survey, Cabinet Office
Notes: Data for 2001-2010/11 collected via the Citizenship Survey. Data for 2012/13 onwards is collected via the Community Life Survey.

- In 2012/13, 41 per cent of adults agreed that people in their neighbourhoods could be trusted.

- The proportion of people agreeing that people in their neighbourhood could be trusted increased significantly between 2007/08 and 2010/11 but following a decline in 2012/13 there has been no significant overall change since 2007/08.

Indicator Assessment

	Long term	Short term	Latest year
Proportion of people engaging in actions addressing issues of public concern			n/a
Proportion of people engaging in any volunteering activity		 (2007/08)	Increased
Proportion of people who have someone to rely on			n/a
Proportion of people agreeing that people in their neighbourhood can be trusted		 (2007/08)	Decreased

Links

Organisation	Subject
Cabinet Office	Community Life Survey
Office for National Statistics	Measuring National Well-being

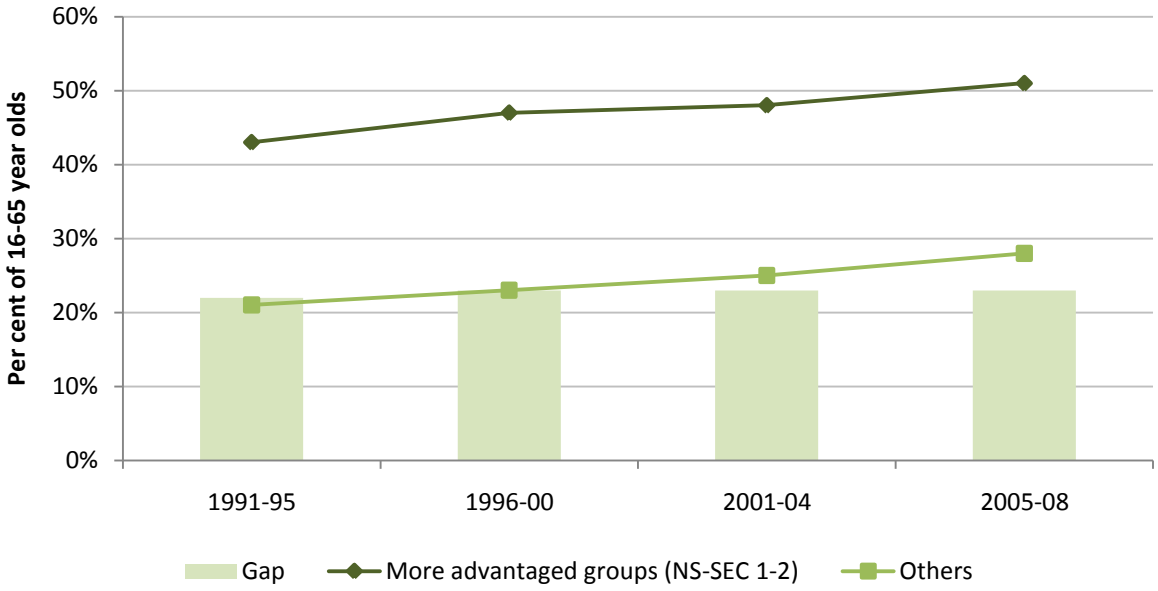
Headline Indicator

7. Social Mobility in Adulthood

Proportion of adults in managerial or professional positions by social background

Patterns of inequality and a lack of social mobility can carry over from one generation to the next and this is therefore a key issue for intergenerational wellbeing. Improving social mobility is about ensuring that individuals can fulfil their potential regardless of their own or their parents' background.

Figure 7.1: Per cent of 16 to 65 year olds who are in paid employment who are in managerial or professional positions by social background using father's occupational group, UK, 1991-95 to 2005-08



Source: Department for Business, Innovation and Skills, British Household Panel Survey and/Understanding Society Survey.
Notes: More advantaged groups are those whose fathers were employed in managerial or professional positions,); less advantaged groups are those whose fathers were in intermediate, manual or routine occupations or unemployed. This is based on the National Statistics Socio-Economic Classification (NS-SEC).

- Around twice as many adults from 'advantaged groups' are in employment in managerial or professional positions than those from less advantaged groups.
- The proportion of people in managerial or professional positions has increased since 1991-95, both for advantaged and less advantaged groups.
- The gap between the two groups has remained similar over time.

Indicator Assessment

	Long term	Short term	Latest year
Proportion of adults from less advantaged groups in managerial or professional positions	(1991-95)	(1996-00)	Increased

Links

Organisation	Subject
Deputy Prime Minister's Office	Social mobility indicators
Department for Business, Innovation and Skills	Business plan indicators
Office for National Statistics	National Statistics Socio-Economic Classification
Understanding Society	Findings 2012

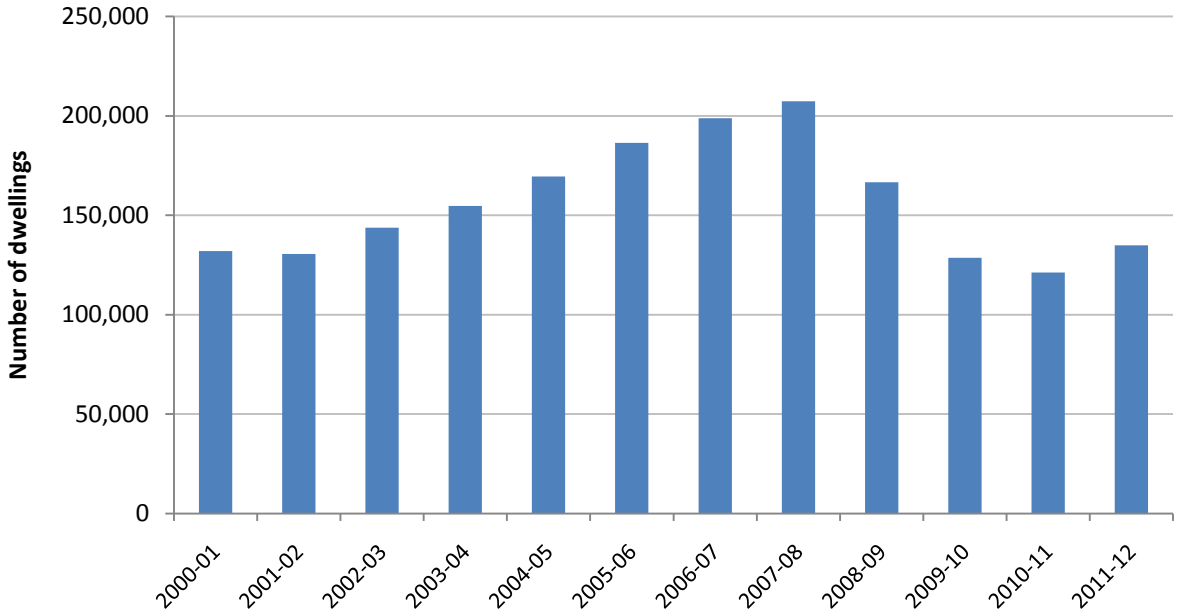
Headline Indicator

8. Housing Provision

Annual net additional dwellings

As the number of households forming increases so too does the need for an adequate housing supply. Additional housing provision offers economic and social sustainability and should be looked at alongside other aspects of sustainable development.

Figure 8.1: Trends in net additional dwellings, England, 2000/01 to 2011/12



Source: Department for Communities and Local Government

- After falling slightly between 2000/01 and 2001/02, net housing supply increased for six consecutive years, reaching a peak of 207,370 additional dwellings provided in 2007/08.
- Housing supply was strongly affected by the economic downturn and supply fell for each of the next three years to a low of 121,200 in 2010/11, a peak-to-trough fall of 42 per cent between 2007/08 and 2011/12.
- Because the near-peak figure for net additional dwellings in 2006/07 is the baseline value for the short term (five year) assessment, this indicator shows a decline over the short term.
- Supply in 2011/12 recovered to 134,900 net additional dwellings; this represented an increase of 11 per cent compared with housing supply in 2010/11 but still 35 per cent below the 2007/08 peak.
- We are taking steps to develop this indicator to take into account demand for additional housing.

Indicator Assessment

	Long term	Short term	Latest year
Net additional dwellings	 (2000-1)	 (2006-7)	Increased

Links

Organisation	Subject
Department for Communities and Local Government	Housing provision statistical release
	Statistical tables

Headline Indicator

Green Economy Indicator

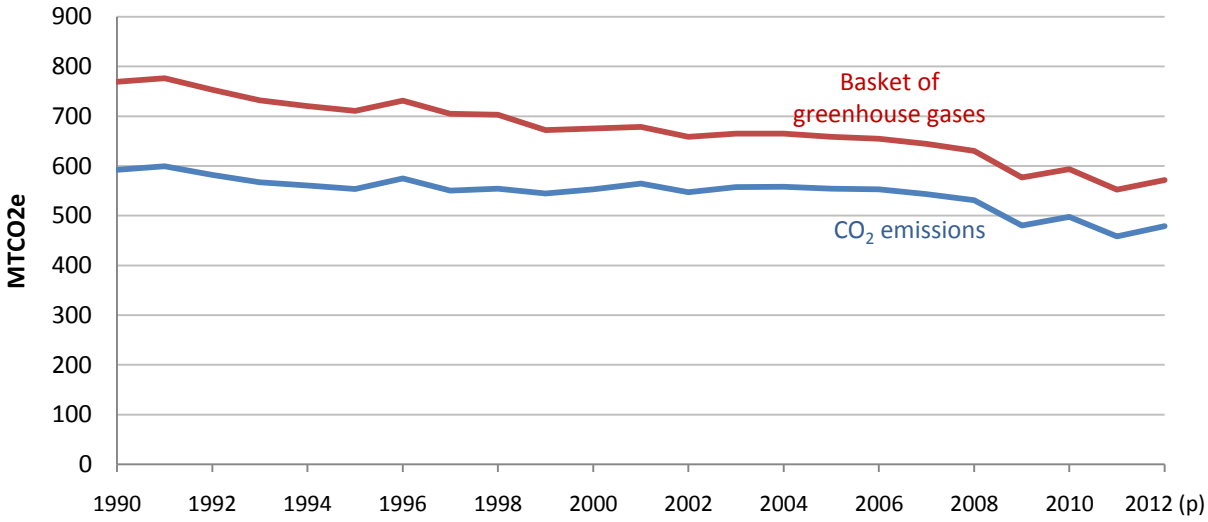
9. Greenhouse Gas Emissions

UK Greenhouse gas emissions

The data from this indicator is dervied from the UK greenhouse gas emission statsitics produced by the Department of Energy and Climate Change. The indicator focuses on the basket of greenhouse gases covered by the Kyoto protocol[7] but we also split out carbon dioxide for reference.

Human emissions of greenhouse gases since the industrial revolution are very likely responsible for most of the global surface warming observed over recent decades.

Figure 9.1: Greenhouse gas emissions million tonnes carbon dioxide equivalent (MTCO2e), UK, 1990 to 2012



Source: DECC
Notes: 2012 data is provisional (p)

- Emissions of carbon dioxide and greenhouse gases rose three and four per cent respectively between 2011 and 2012. Nonetheless, carbon dioxide emissions are 113 million tonnes lower than 1990 and greenhouse gas emissions are 198 million tonnes lower.
- Emissions of carbon dioxide and greenhouse gases have fallen 19 and 26 per cent respectively since 1990.

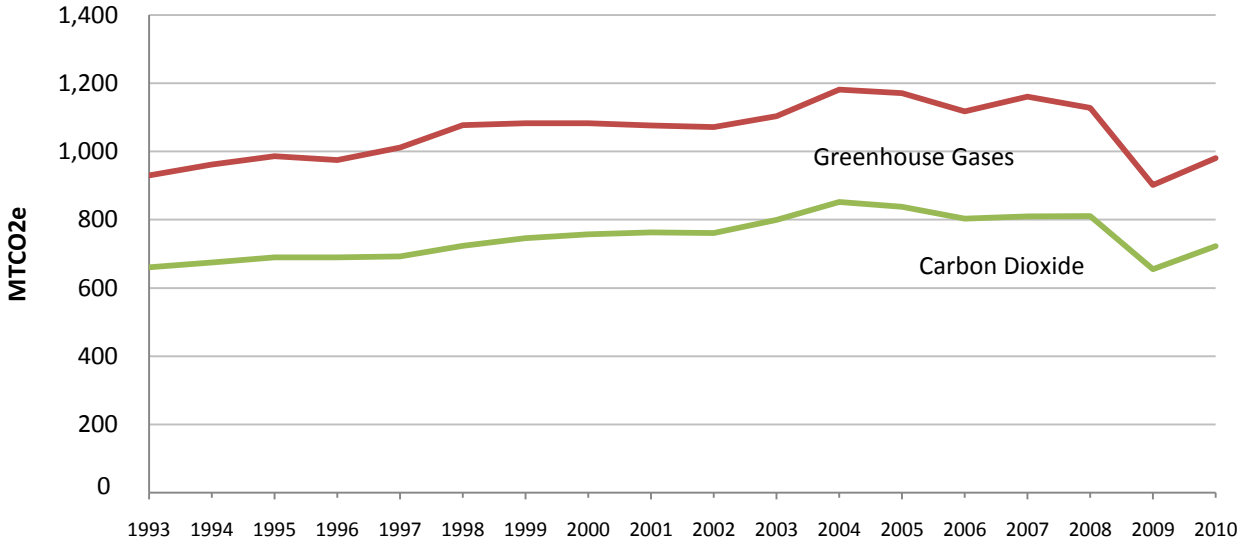
Emissions associated with UK consumption

Estimates of territorial emissions published by DECC cover only those emissions generated in the UK. Consumption emissions estimates relate to those associated with UK consumption wherever in the world these emissions occur. This allows us to understand the overseas impact on emissions our consumption is having. For a more

[7] Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons and Sulphur Hexafluoride.

sustainable world, both our territorial emissions and our consumption emissions should decrease.

Figure 9.2: Greenhouse gas emissions (million tonnes of carbon dioxide equivalent (MTCO2e)) associated with UK consumption, UK, 1993 to 2010



Source: Defra.
Notes: The greenhouse gases figures for consumption emissions are currently classified as experimental statistics.

- Carbon dioxide emissions fell 15 per cent from their peak in 2004 although emissions rose 10 per cent between 2009 and 2010. The notable rise between 1993 and 2004 can be partially accounted for by our increased reliance on imports as there is some evidence that imported products are associated with a higher level of emissions
- Greenhouse gas emissions were 16 per cent lower in 2010 than in 2004. However, between 2009 and 2010, consumption emissions of all greenhouse gases increased nine per cent, and in 2010 emissions were five per cent higher than in 1993. It should be noted that emissions of greenhouse gases are currently classified as experimental.

Indicator Assessment

	Long term	Short term	Latest year
Greenhouse gas emitted within the UK	(1990)	(2007)	Increased
Greenhouse gas emissions associated with UK consumption	(1993)	(2005)	Increased

Links

Organisation	Subject
Department of Energy and Climate Change	Greenhouse Gas Emissions
	Approaches to Reporting Emissions
Department for Environment, Food and Rural Affairs	Carbon Footprint

Headline Indicator

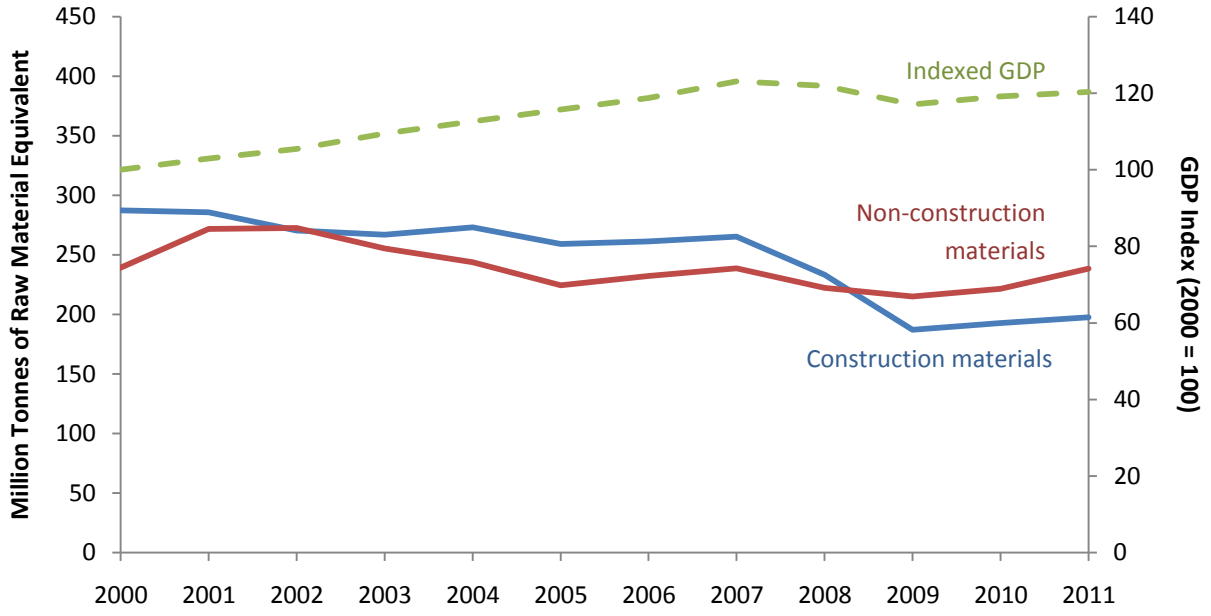
Green Economy Indicator

10. Natural Resource Use

Consumption of raw construction and non-construction materials

Natural resource use is a consumption based indicator showing the amount of material used to meet UK consumption. This includes material used in the production of imports to the UK which is not incorporated into the product. The indicator has two components: construction materials (e.g. sand and gravel) and non-construction materials (i.e. biomass and minerals). This indicator does not include fossil fuels or other energy carriers. A reduction in non-renewable resource use, either by switching to renewable materials from sustainable sources, or from increased resource productivity, would be a positive outcome.

Figure 10.1: Raw material consumption of construction and non-construction materials, UK, 2000 to 2012



Source: Defra.
Note: Excludes use of fossil fuels. These are currently classified as experimental statistics.

- Consumption of construction materials has dropped by 31 per cent since 2000. Consumption of non-construction materials has fluctuated over the same period, with the recent rise leaving it similar to the 2000 level.
- To examine changes in resource productivity and the comparative changes in materials we can use an indexed time series against Gross Domestic Productivity (GDP).
- The consistent decrease in consumption of construction materials coupled with higher GDP since 2000 suggests that there has been an increase in resource productivity. However, the recession has undoubtedly impacted in the 2007-2009 fall in construction materials.

Indicator Assessment

	Long term	Short term	Latest year
Raw Material Consumption - Construction Materials	(2000)	(2006)	Increased
Raw Material Consumption - Non-Construction Materials	(2000)	(2006)	Increased

Links

Organisation	Subject
Office for National Statistics	Material Flows

Headline Indicator

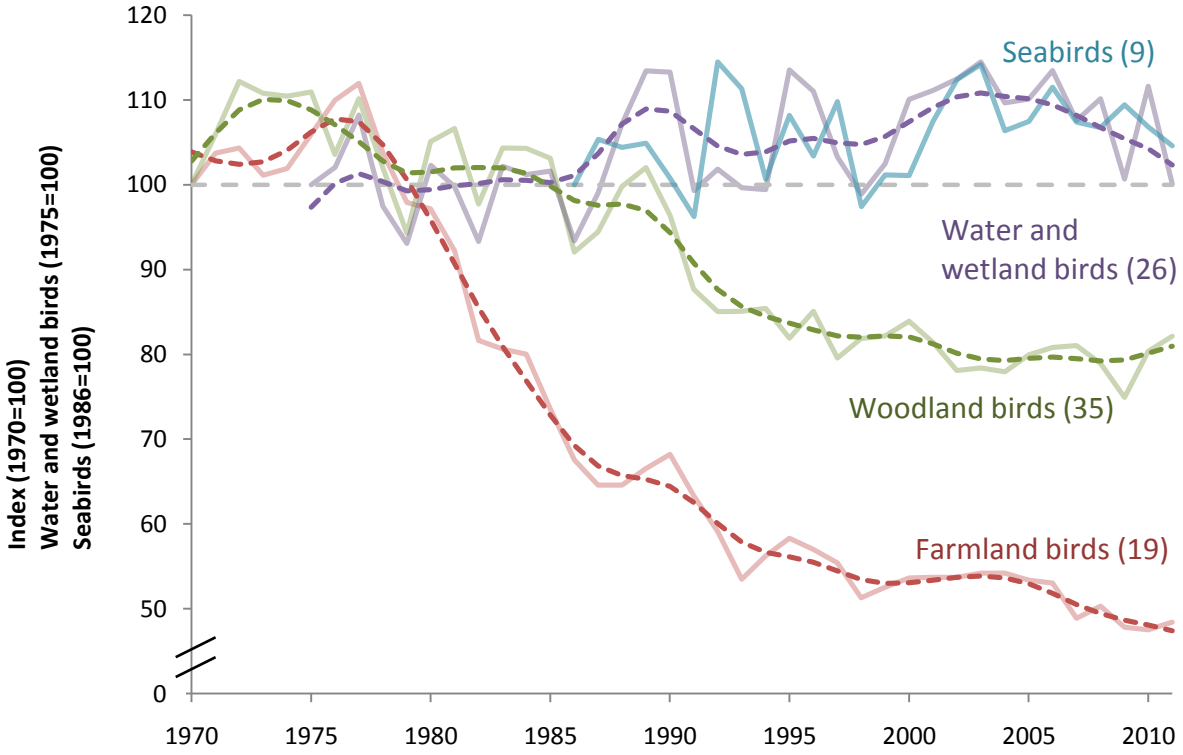
Green Economy Indicator

11. Wildlife

Populations of farmland birds, woodland birds, water and wetland birds and seabirds

Natural capital includes those elements of the environment that yield resources and ecosystem services, but we cannot determine our entire capital of natural resources and instead have to focus on selected aspects of the natural environment and changes in its state. Populations of key species of birds are a good indicator of the broad state of wildlife and countryside because they occupy a wide range of habitats and key positions in the food chain. It may be possible to compile further indicators of natural capital when it is been included within the UK Environmental Accounts.

Figure 11.1: Populations of wild birds, England, 1970 to 2011



Source: RSPB, BTO, JNCC, Defra

Notes: dashed lines represent the smoothed trend which is calculated based on a three-year average for each year. The solid lines represent unsmoothed individual data points for each year. Assessments of change are made based on smoothed data and are therefore based on the 2010 (2009-2011) data point.

Farmland birds

- Between 1970 and 2010, farmland bird numbers fell by 52 per cent. Most of the decline occurred between the late 1970s and early 1990s, but there has also been a decline of nine per cent overall since 2000.
- The longer term decline in farmland bird species has been driven by changes in agricultural practices, including changes in cropping regimes, weed and pest

management and historical loss of extensive pasture and semi-natural habitat. The reasons for the more recent decline in bird populations are less well understood and are likely to relate to multiple factors including some farmland management practices, weather events and disease.

Woodland birds

- In 2010, breeding woodland birds populations were about 20 per cent lower than their 1970 level. The greatest decline in woodland birds occurred from the late eighties until the mid nineties and the index has been relatively stable since 2000.
- The declines in woodland birds have several known and potential causes including a lack of management and increased deer browsing pressure, both of which result in a reduced diversity of woodland structure and, therefore, reduced availability of suitable nesting and foraging habitats. In addition, several declining woodland birds are long-distance migrants, and a decline in the extent or quality of habitats used outside the breeding season and climate change may be affecting these species.

Water and wetland birds

- Between 1975 and 2010, populations of breeding wetland birds fluctuated from year to year but have remained broadly stable, increasing by just two per cent over the period. This trend masks individual species decline, such as the lapwing which has declined by 43 per cent since its peak in population in 1986. This decline is offset by increases in birds of lakes and large rivers, such as the mallard.

Seabirds

- There was little or no overall change in the size of populations of seabirds between 1986 and 2010. In 2010, populations of seabirds were three per cent higher than the level in 1986 although because of the high degree of variation from year to year, this change is not considered significant.
- Species have had mixed fortunes; for example, Kittiwakes declined by 31 per cent between 1986 and 2011, whereas Guillemots increased by 132 per cent over the same period. The recent declines in some species such as Kittiwake is known to be linked with food shortages during the breeding season, and although it is not clear what is ultimately driving this, fishing practice and climate change, or some combination of the two, are likely contributory factors.

Indicator Assessment

	Long term	Short Term[1]	Latest year
Breeding farmland birds	(1970)	(2000)	Increased
Breeding woodland birds	(1970)	(2000)	Increased
Breeding wetland birds	(1970)	(2000)	Decreased
Breeding seabirds	(1986)	(2000)	Decreased

[1]The short term assessment for wild bird populations are since 2000 to tie in with the England Natural Environment Indicators and England Biodiversity Indicators. This assessment is under review and may change in the next publication in the Biodiversity Indicators in October 2013.

Links

Organisation	Subject
Department for Environment, Food and Rural Affairs	England Biodiversity Indicators
	Wild Bird Statistics: England
Forestry Commission	Indicators

Headline Indicator

Green Economy Indicator

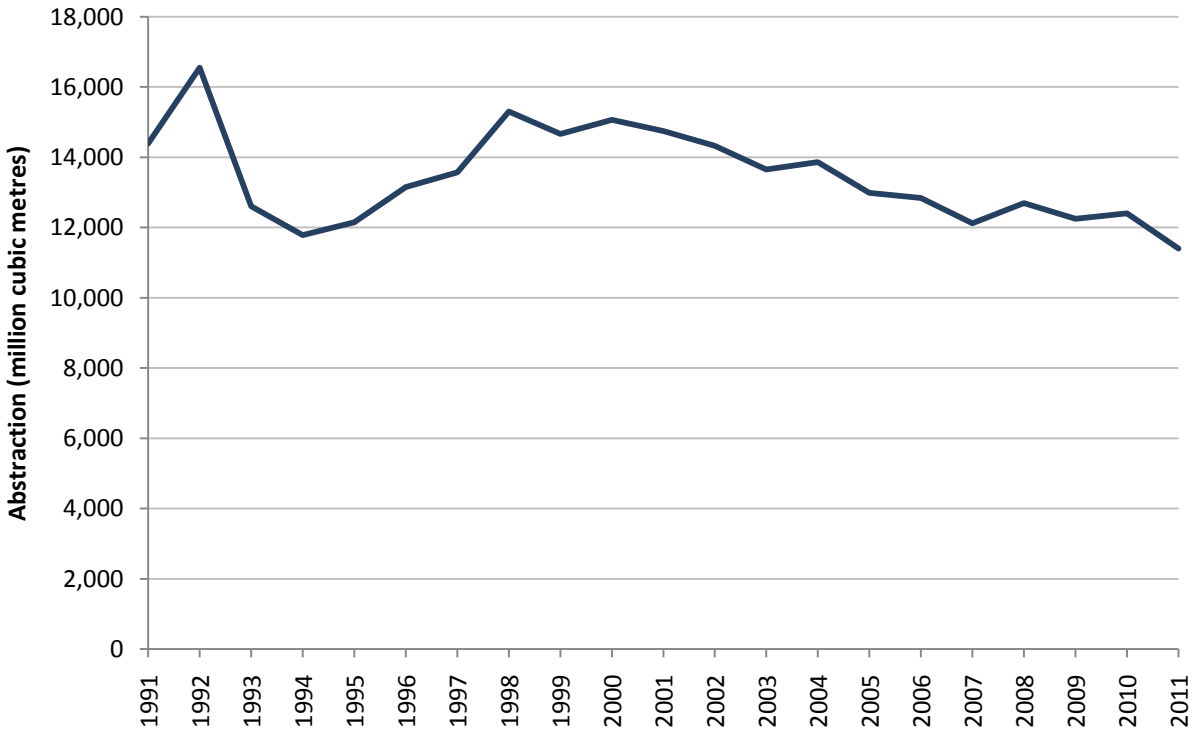
12. Water Use

Abstractions from non-tidal surface waters and ground waters

Water is a vital resource that needs to be managed carefully to ensure both that people have access to affordable and safe drinking water and sanitation and that industry needs are met, without depleting water resources or damaging ecosystems. A decrease in abstraction over a period of several years means less water is being taken from surface and ground waters. As this indicator has been included to represent the state of our natural environmental (water) stocks, a decrease in abstractions has been assessed on balance as being a favourable outcome. Year on year estimated direct actual abstraction is likely to fluctuate up or down as a consequence of a range of factors; such as changes in abstraction licences, prevailing weather conditions and changes in patterns of water use. As such an increase in abstraction may also be observed in the estimates.

More information about the availability of our water resources can be obtained from the Environment Agency's website via the link below.

Figure 12.1: Estimate of actual direct abstractions from non-tidal surface waters and groundwaters, England and Wales, 1991 to 2011

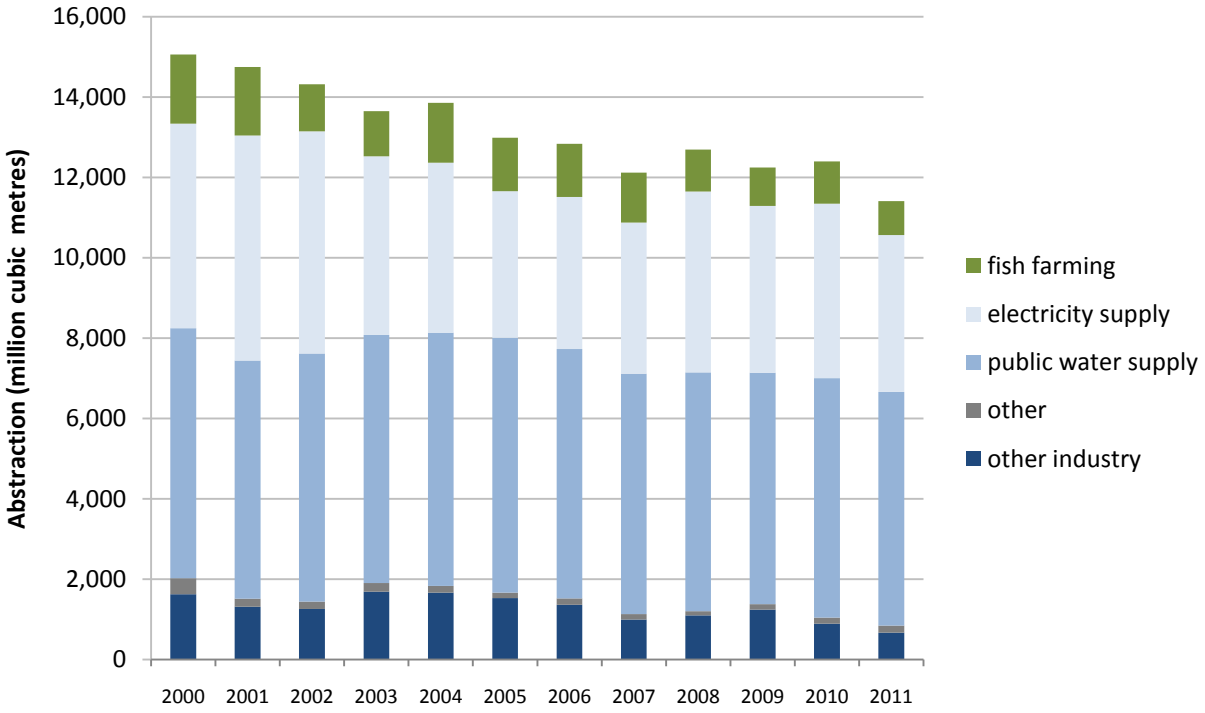


Source: Environment Agency
Note: Data relates only to direct abstraction authorised by the Environment Agency.

- The volume of water abstracted from non-tidal surface and groundwater in England and Wales has fallen over the last twenty years from an estimated peak of 16.5 billion cubic metres in 1992 to an estimated 11.0 billion cubic metres in 2011.

- Of the 11.0 billion cubic metres abstracted from non-tidal surface water and groundwater in 2011, 51 per cent was for the public water supply and 34 per cent for the electricity supply industry. Figure 12.2 gives a detailed breakdown by use.

Figure 12.2: Estimate of direct actual abstractions from non-tidal surface waters and groundwaters by use, England and Wales, 2000 to 2011



Source: Environment Agency
Note: Data relates only to direct abstraction authorised by the Environment Agency

Indicator Assessment

	Long term	Short term	Latest year
Estimated direct actual abstractions from non-tidal surface waters and groundwaters	(1991)	(2006)	Decreased

This assessment is based on a smoothed trend line on figure 12.1 so that year to year variations have less impact on the assessment shown above. The same 3 per cent change rule as outlined in the introduction of the indicator set is used to assess the change in the smoothed trend line.

Links

Organisation	Subject
Department for Environment, Food and Rural Affairs	Water Abstraction Statistics
Environment Agency	Catchment Abstraction Management Strategies

13. Population Demographics

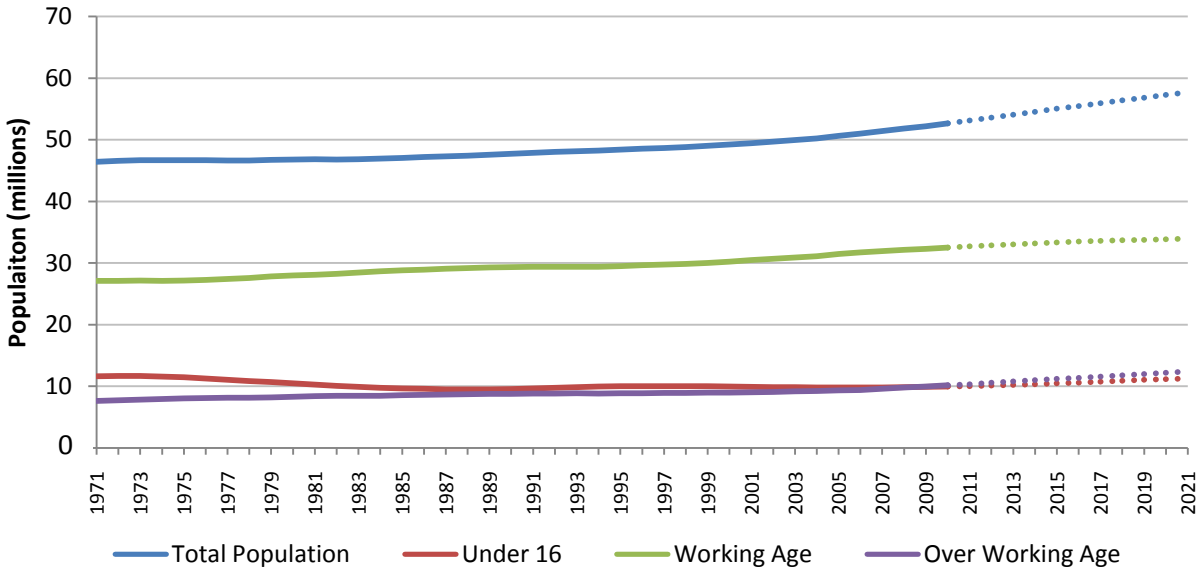
Total population and number of households in England

Population and population growth are key drivers behind many challenges for sustainable development as population growth increases the pressure on resources and services. Household projections are an indication of the likely increase in households given the continuation of recent demographic trends. Household formation may increase the pressure for housing or resources and services.

Total population

The indicator presents data on the total population of England alongside breakdowns by age group.[8]

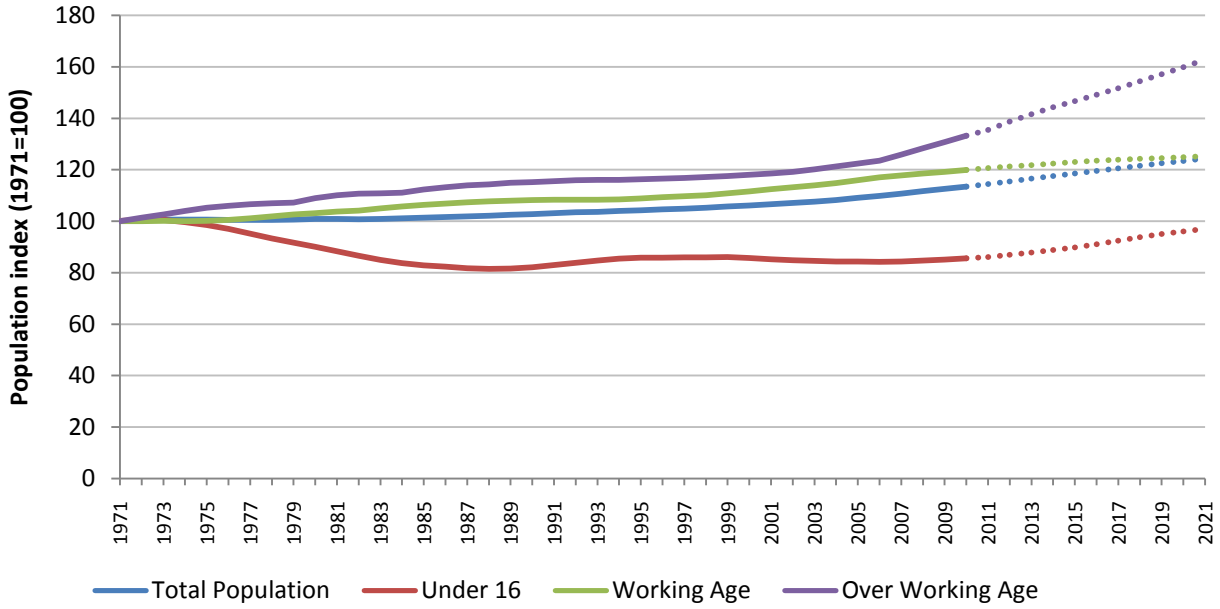
Figure 13.1: Total population and projected population, England, 1971 to 2021



Source: Office for National Statistics mid-year population estimates and projections.
Notes: Projections are represented by a dashed line.

[8] For these statistics working age as defined by ONS is 16-64 for men and 16-59 for women.

Figure 13.2: Index of total population and projected population, England, 1971 to 2021



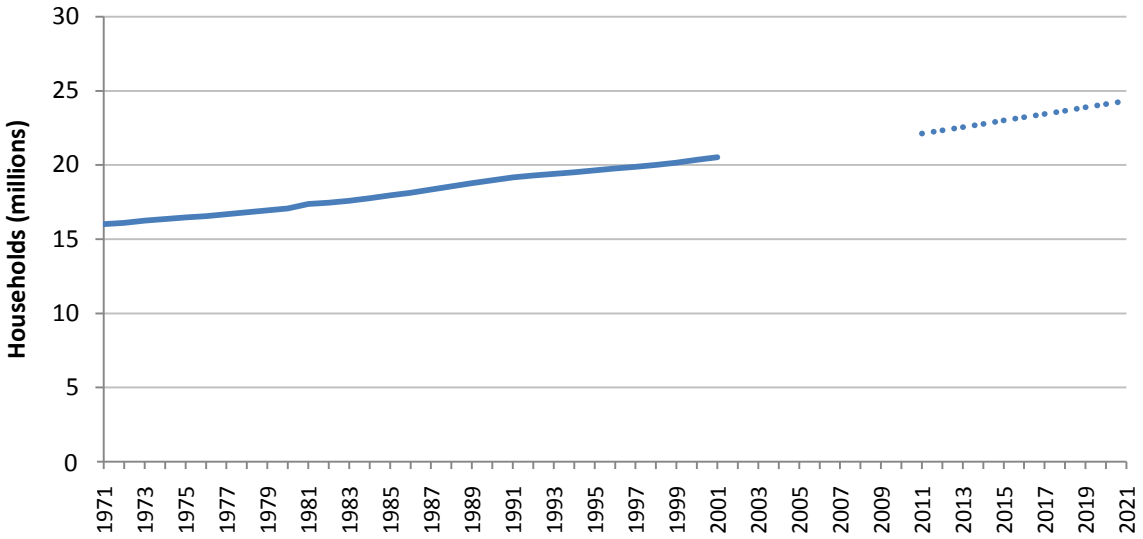
Source: Office for National Statistics mid-year population estimates and projections.
Notes: Projections are represented by a dashed line

- In 2011, the estimated population increased to around 56,200,000, of which around 34,600,000 were classed as working age.
- The projections of population show that the population of people over working age will continue to increase at a faster rate than the rest of the population.
- By 2021 it is projected that 21.6 per cent of the English population will be made up of those over working age compared with 16.5 per cent in 1971.

Population Demographics – Households

This indicator presents household estimates between 1971 and 2001 and projected estimates from 2011 to 2021.

Figure 13.3: Total number of households and projected household numbers, England, 1971 to 2021



Source: DCLG
Notes:
1. All projections are 2011-based and project forward 10 years from 2011 (base year) to 2021.
2. The 2011-based interim household projections are linked to the Office for National Statistics 2011-based interim sub-national population projections.
3. A household is defined as one person living alone, or a group of people (not necessarily related) living at the same address with common housekeeping – that is, sharing either a living room or sitting room or at least one meal a day.
4. Projections are represented by a dashed line.
5. Estimates are not available for 2001-2011.

- There was a 50 per cent rise in the number of households in England between 1971 and 2011.
- The number of households is projected to continually increase from just over 22 million in 2011 to around 24.3 million in 2021.

Indicator Assessment

This indicator is for context and is not assessed.

Links

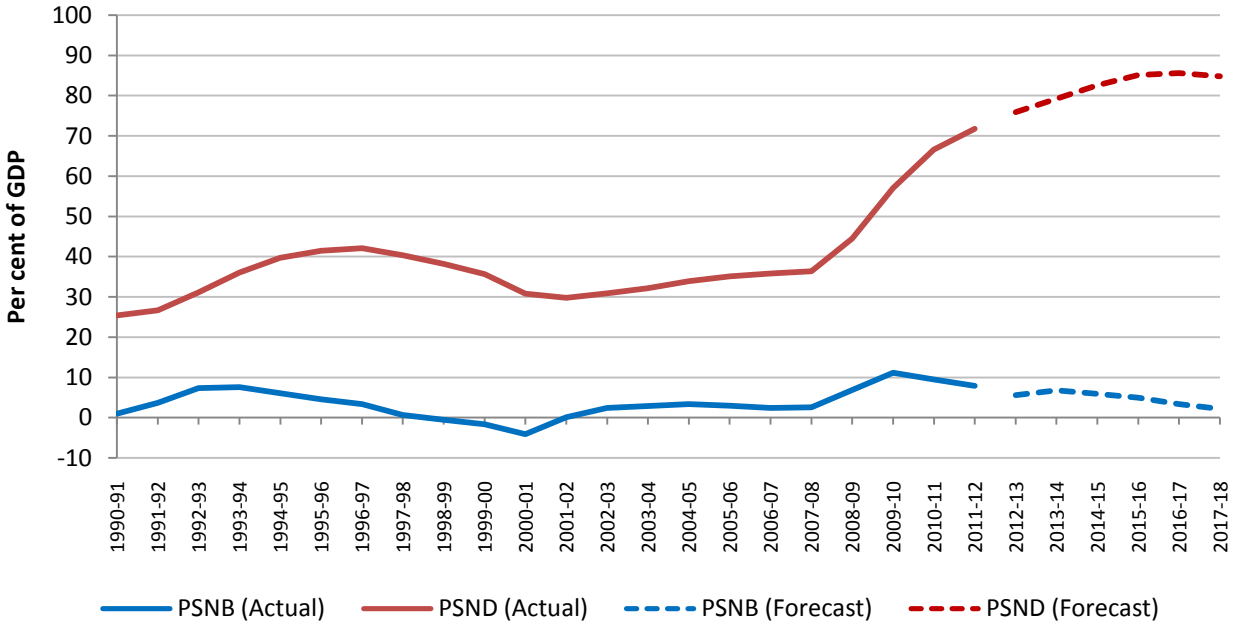
Organisation	Subject
Office for National Statistics	Population estimates
	Population projections
Department for Communities and Local Government	Household projections

14. Debt

Public sector net debt (PNSD) and public sector net borrowing (PSNB)

Public Sector Net Borrowing (PSNB) is a flow measure of the difference between total public sector receipts and expenditure, while Public Sector Net Debt (PSND) is a stock measure of the cumulative impact of historic deficits plus financial transactions. PSNB and PSND are both used to analyse the sustainability of the UK public finances.

Figure 14.1: Public Sector Net Debt (Percent of GDP) and Public Sector Net Borrowing (Percent of GDP), UK, 1990/91 to 2017/18



Source: Office for Budget Responsibility (March 2013)
Notes: Debt at end March; GDP centred on end March. When expressed as percentage of GDP this uses forecast GDP. All fiscal forecasts are subject to significant uncertainty, described in more detail in the OBR's Economic and Fiscal Outlook.

- Public sector net debt (PSND) as a proportion of GDP increased in the mid-nineties, decreased to 2001-02 and then gradually rose until a sharp upturn in 2007-08. PSND is forecast to rise as a share of GDP to 2016-17, peaking at 85.6 per cent of GDP, before falling to 84.8 per cent of GDP in 2017-18.
- Public sector net borrowing (PSNB) as a proportion of GDP declined from the early-nineties to 2000-01 before rising to approximately three per cent of GDP where it remained stable before increasing between 2007-08 and 2009-10. It is forecast to decline from 7.9 per cent of GDP in 2011-12 to 2.3 per cent of GDP in 2017-18.

Indicator Assessment

As this indicator is a forward look forecast it is subject to revisions and therefore does not have a traffic light assessment.

The Office for Budget Responsibility (OBR) makes an assessment of these measures in its Economic and Fiscal Outlook. As well as the medium-term forecasts used here the OBR also provides long-term projections of fiscal sustainability over the next fifty years. Both of these are available at the link below.

Links

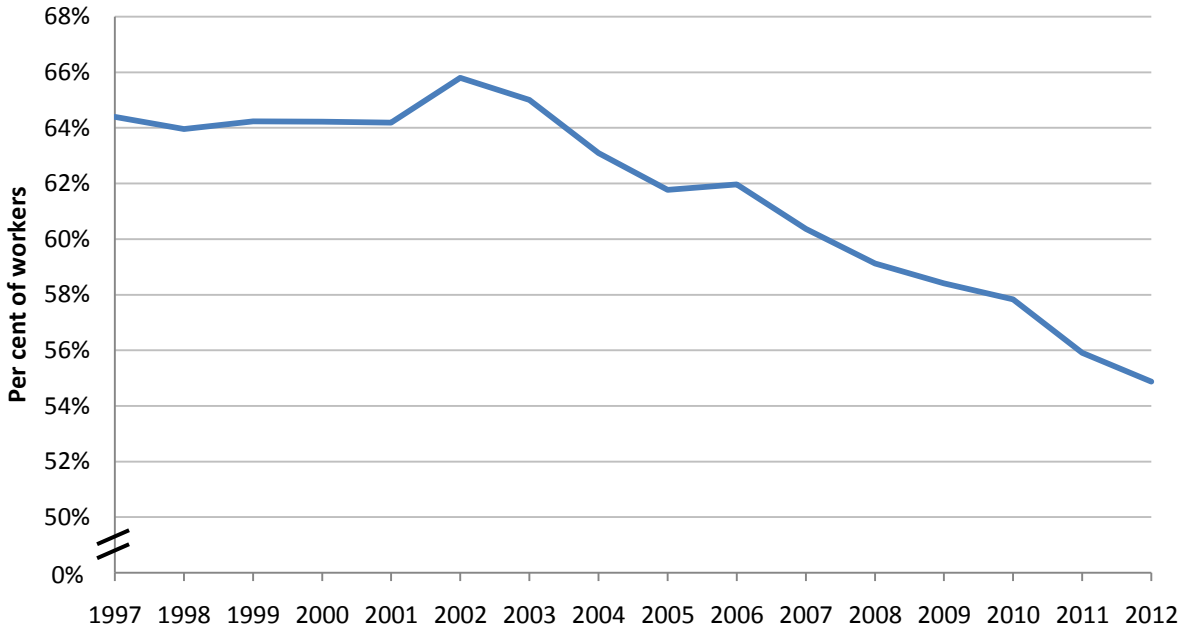
Organisation	Subject
Office for Budget Responsibility	Economic and Fiscal Outlook
	Public finances data
	Fiscal Sustainability Report 2012

15. Pension Provision

Percentage of eligible workers in a workplace pension

Financial security is an important contribution to personal wellbeing, and pension provision is an important aspect of a sustainable economy. A lack of adequate pension provision (particularly for an ageing population) would have long term consequences for the sustainability of public finances, the economy and society.

Figure 15.1: Percentage of workers in the automatic enrolment eligible population with a workplace pension scheme, UK, 1997 to 2012



Source: ONS, Annual Survey of Hours and Earnings
Notes: The automatic enrolment eligible population refers to workers aged at least 22 and under State Pension age, and who earn £8,105 or more per year (in 2012/13 earnings terms).[9]

- Between 2011 and 2012 the proportion of workers with a workplace pension dropped one per cent to 55 per cent. This figure has fallen nine per cent since 1997. There was a brief rise in 2002 to a peak of 66 per cent but the proportion has steadily decreased since.

[9]Additional notes:

1. This indicator measures the number of employee jobs (i.e. excluding the self-employed). An individual may have more than one job.
2. For 2011 and 2012, estimates capture women aged 22 to 59 and therefore do not account for the gradual equalisation of the female State Pension Age to 65.
3. The £8,105 threshold has been deflated by average weekly earnings (AWE) from 2001 to 2011, and the average earnings index (AEI) from 1997 to 2000 for the purposes of arriving at thresholds suitable for determining eligibility prior to 2012.
4. The analysis is based on annualised weekly earnings estimates that are not adjusted to take account of the effect of short spells in employment. This is in contrast to estimates produced by the ONS. The estimates also do not adjust for employees whose pay is affected by absence.
5. ONS excludes workers for which employees are not on adult rates of pay, such as those on reduced rates for reasons of apprenticeship, training or age. These workers have been included in this analysis.

- Recent workplace pension reforms, which require employers to automatically enrol all eligible workers into a workplace pension and make a mandatory minimum employer contribution, may see this trend change in the future.

Indicator Assessment

	Long term	Short term	Latest year
Percentage of eligible workers in a workplace pension	 (1997)	 (2007)	Decreased

Links

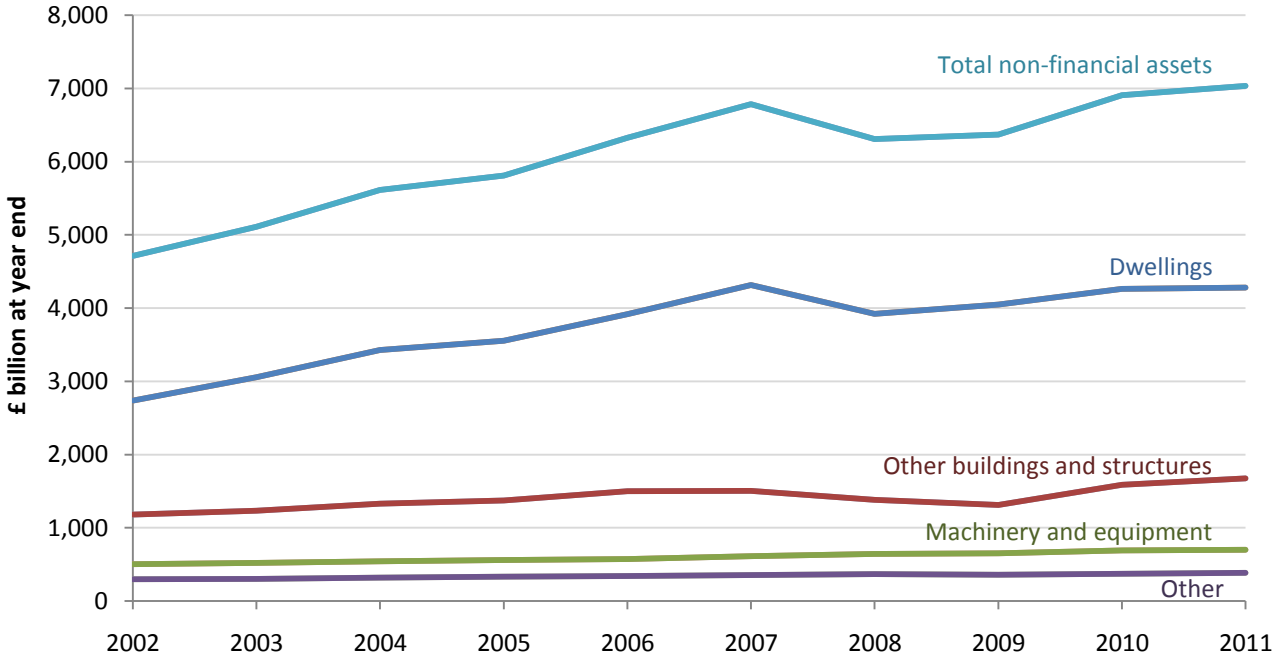
Organisation	Subject
Office for National Statistics	Annual Survey of Hours and Earnings

16. Physical Infrastructure

Asset net worth by structure type

A sustainable economy has to maintain the physical capital needed to support production. This measure looks at the extent to which the UK is improving its stock of fixed capital, as measured by the value of its tangible asset base. Tangible fixed assets comprise buildings and other structures (including historic monuments), vehicles, other machinery and equipment and cultivated assets in the form of livestock and orchards.

Figure 16.1: Estimated asset net worth at year end by type of structure, at current prices, UK, 2002 to 2011



Source: National Balance Sheet, ONS
Notes: Non-financial assets include both tangible and intangible assets. Tangible assets consist of property, machinery, agricultural assets, vehicles, farming stock and some military equipment. Intangible assets refer to computer software, patents, mineral exploration and artistic originals. Financial assets (not included in this graph) refer to means of payment, financial claims, loans and economic assets that are close to financial claims in nature. The category 'Other' comprises cultivated assets, inventories, intangible fixed assets and intangible non-produced assets.

- Total estimated non-financial asset net worth increased from £4.7 trillion in 2002 to £7 trillion in 2011.
- Estimated asset net worth continues to increase with each structure type (apart from dwellings) currently at its highest net worth in the last 10 years[10].
- The estimated net worth of dwellings fell almost 10 per cent in 2008 due to a decline in the housing market. A steady recovery in prices alongside additional dwellings has increased the estimated net worth in 2011 to almost 2007 levels.

[10] The ONS are currently revising the methodology used to derive these figures and therefore these figures are subject to revision.

Indicator Assessment

	Long term	Short term	Latest year
Total non-financial assets net worth		 (2006)	Increased

Links

Organisation	Subject
Office for National Statistics	The National Balance Sheet

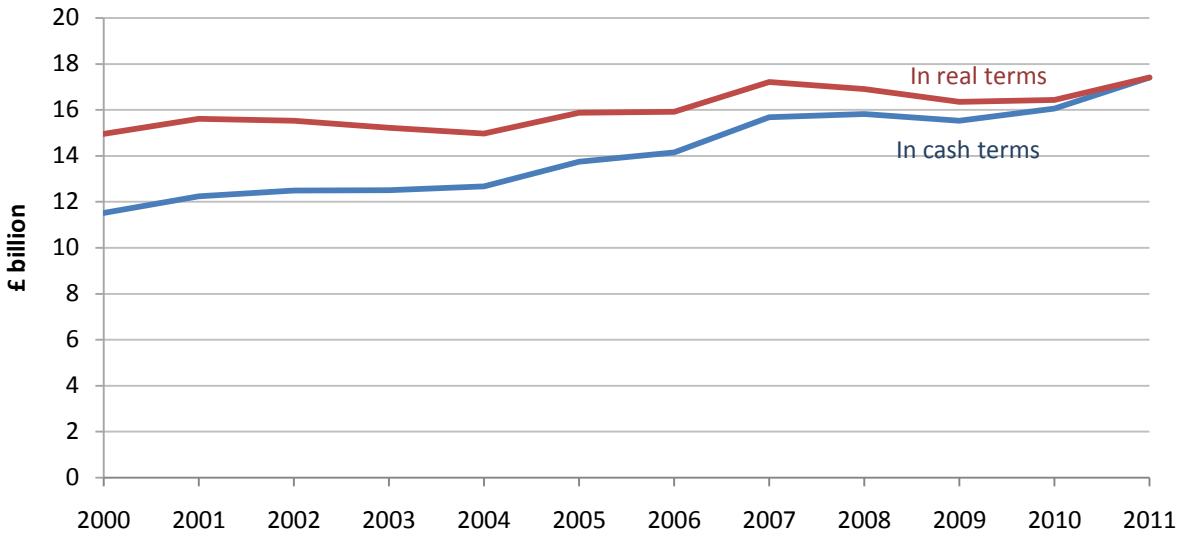
17. Research and Development

Green Economy Indicator

Research and development in cash and real terms

Business innovation and research and development are vital ingredients in raising the productivity, competitiveness and growth potential of modern economies. The indicator compares cash terms (the actual amount spent) and real terms (prices indexed to 2011). By looking at the real terms we can see how much spending has actually increased (whilst controlling for inflation) and this allows a better perspective on actual changes in spending.

Figure 17.1: Expenditure on R&D performed in businesses in 2011 prices, UK, 2000 to 2011



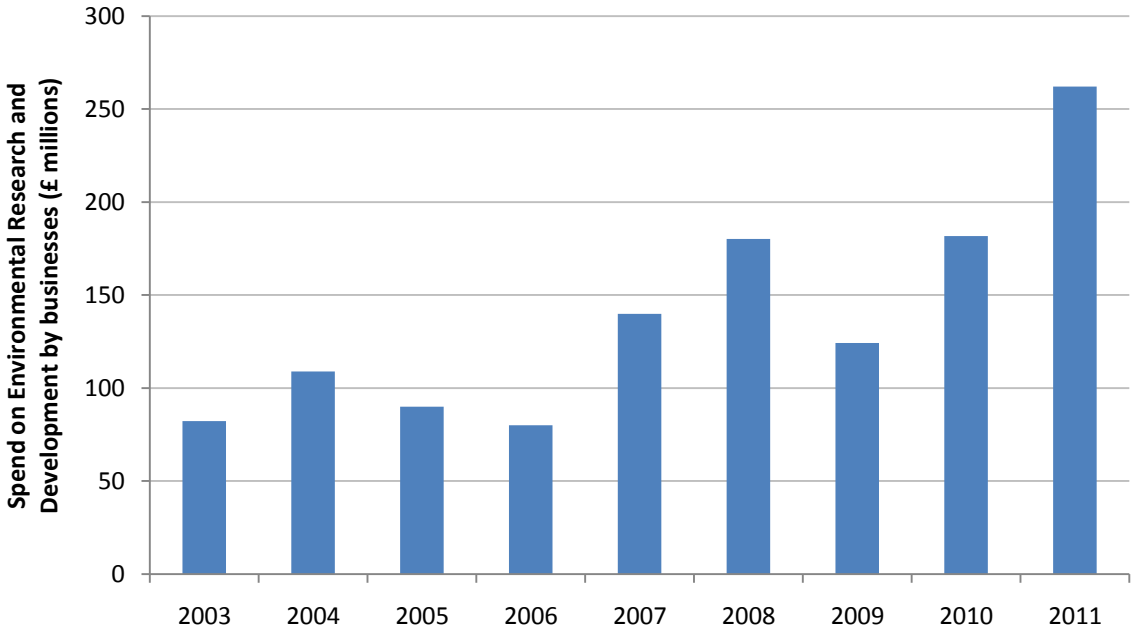
Source: ONS

- Research and Development spending in cash terms has increased from £11.5 billion in 2000 to £17.4 billion in 2011. Spending increased between 2010 and 2011 by £1.4 billion from £16.1 billion in 2010.
- Research and development spending in real terms has increased from £15 billion in 2000 to £17.4 billion in 2011. The use of real terms shows us that although spending has increased by £5.9 billion (in cash terms) since 2001, it has only increased £2.5 billion in real terms. The discrepancy of £3.5 billion can be explained by price inflation.

Research and development on environmental protection

Research and development specific to environmental protection by business is key to a sustainable economy through businesses minimising their impact and supporting the local environment. Defra surveys the expenditure on environmental protection by business.

Figure 17.2: Expenditure on R&D related to environmental expenditure, UK, 2000 to 2011



Source: Defra

- Research and development related to environmental protection has increased from £82.3 million in 2003 to £262.2 million in 2011. Environmental protection expenditure can be quite volatile and the general trend should be observed.
- With the exception of 2009, the amount spent on research and development by business has increased year on year since 2006.

Indicator Assessment

	Long term	Short term	Latest year
Expenditure on R&D performed in UK Business	(2000)	(2006)	Increased
Expenditure on R&D related to Environmental Protection Expenditure		(2006)	Increased

Links

Organisation	Subject
Office for National Statistics	Expenditure on Research and Development
Department for Environment, Food and Rural Affairs	Environmental Protection Expenditure

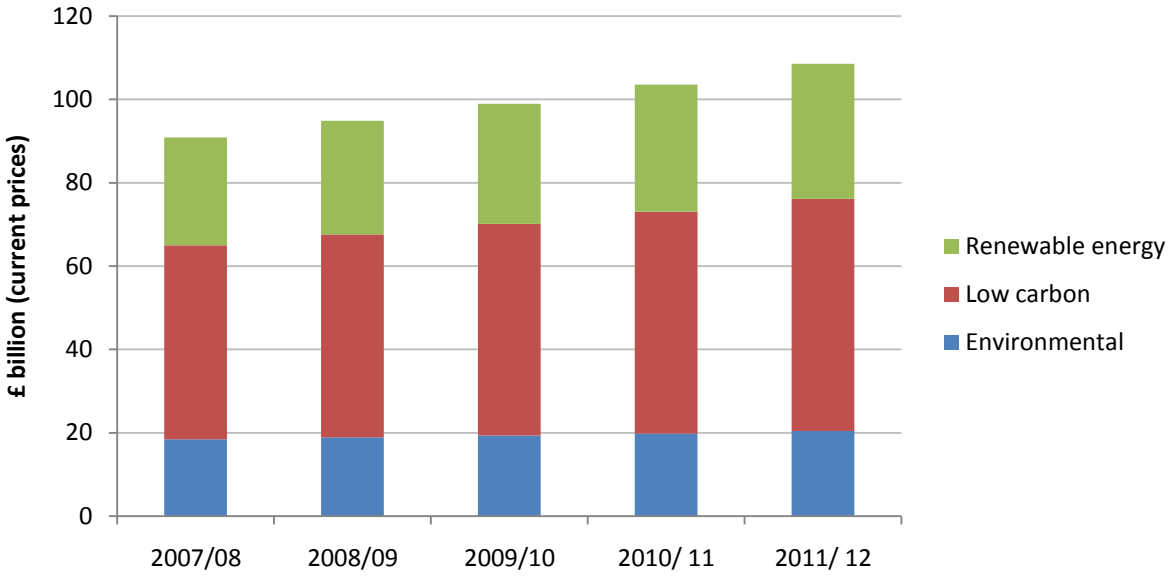
18. Environmental Goods and Services Sector

Green Economy Indicator

Sales of low carbon and environmental goods and services

Moving towards a green economy includes developing opportunities and markets for environmentally oriented goods and services and jobs. The low carbon and environmental goods and services sector could be a key component of future social and economic prosperity.

Figure 18.1: Total sales in the Environmental Goods and Services Sector, England, 2007/08 to 2011/12



Source: K-Matrix. Note: all figures include supply chain

- The value of the environmental goods and services sector has consistently risen between 2007/08 and 2011/12. The sector is now valued at £109 billion.
- Renewable Energy is the fastest growing section of the environmental goods and services sector, growing by over 6 per cent from 2010/11 to 2011/12. Sales in the low carbon and environmental sector grew by five and three per cent respectively.

Indicator Assessment

	Long term	Short term	Latest year
Value of the Environmental Goods and Services Sector			Increased

Links

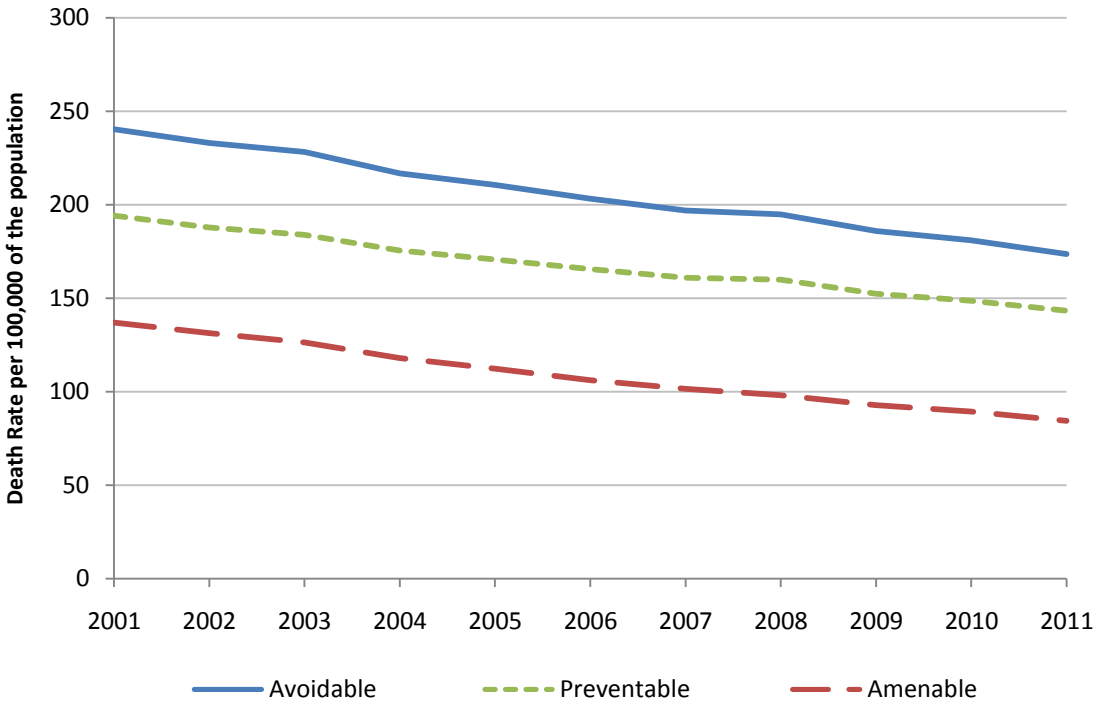
Organisation	Subject
Department for Business, Innovation and Skills	Low carbon and environmental goods and services report 2010/11
Office for National Statistics	Measuring the environmental goods and services sector

19. Avoidable Mortality

Mortality from causes considered avoidable

This indicator presents mortality figures for causes of death that are considered avoidable in the presence of timely and effective healthcare or public health interventions (avoidable mortality). Also presented are trends in mortality by causes considered preventable (if the death could be avoided by public health interventions) or amenable (treatable) to healthcare, which are subsets of total avoidable mortality.

Figure 19.1: Mortality rate per 100,000 population due to avoidable causes, England, 2001 to 2011



Source: ONS
Notes: Age standardised rates per 100,000 population, standardised to the European Standard Population .
Some causes are both amenable to healthcare and preventable,

- Mortality from causes considered avoidable has decreased by 27 per cent between 2001 and 2011.
- Mortality from causes considered amenable has decreased at a faster rate than those considered preventable, declining by 38 per cent and 26 per cent respectively between 2001 and 2011.
- Information is also available on the standardised years of life lost in England and Wales from ONS via the link at the end of this section.

Indicator Assessment

	Long term	Short term	Latest year
Mortality from deaths considered avoidable		 (2006)	Decreased
Mortality from deaths considered preventable		 (2006)	Decreased
Mortality from deaths considered amenable		 (2006)	Decreased

Links

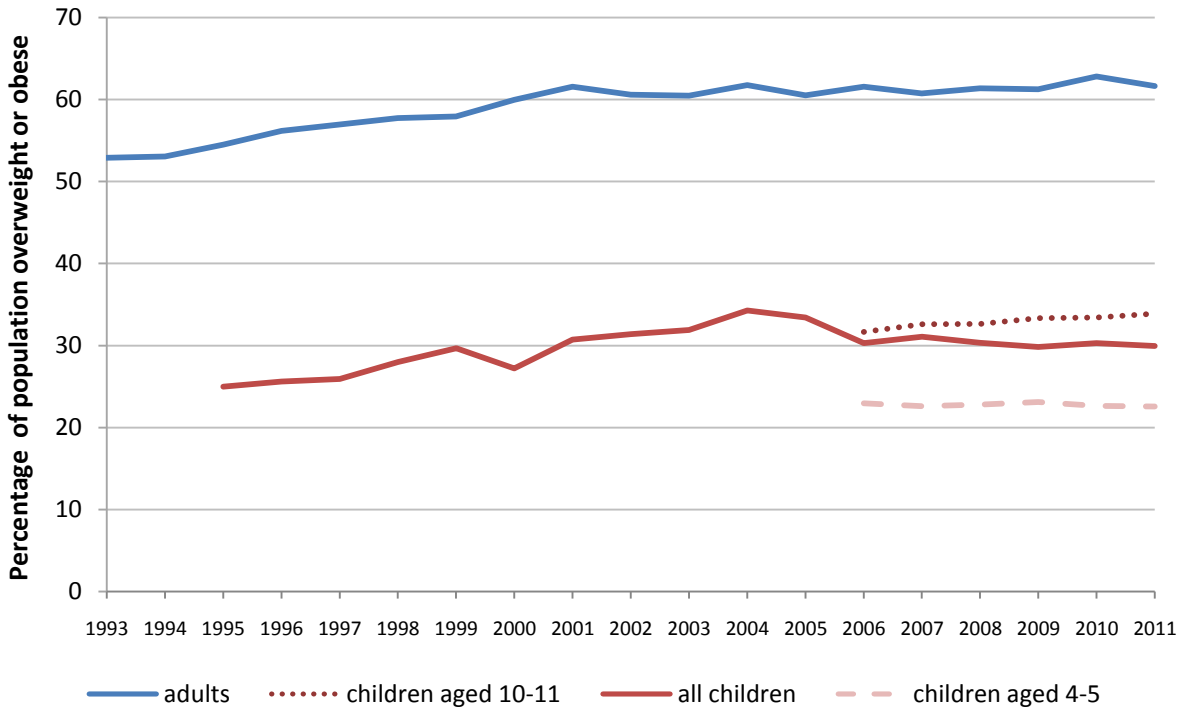
Organisation	Subject
Office for National Statistics	Avoidable Mortality and Standardised Years of Life Lost
Public Health Outcomes Framework	Preventable Mortality
Health and Social Care Information Centre	Indicator Portal

20. Obesity

Prevalence of overweight or obesity in children and adults

Obesity is one of the most serious risks to health in Europe, being linked to diabetes, hypertension, heart disease and cancer. Overweight children are of particular concern, because when unhealthy nutritional habits and a sedentary lifestyle are maintained over years the result is obesity.

Figure 20.1: Percentage of adults and children overweight or obese, England, 1993 to 2011

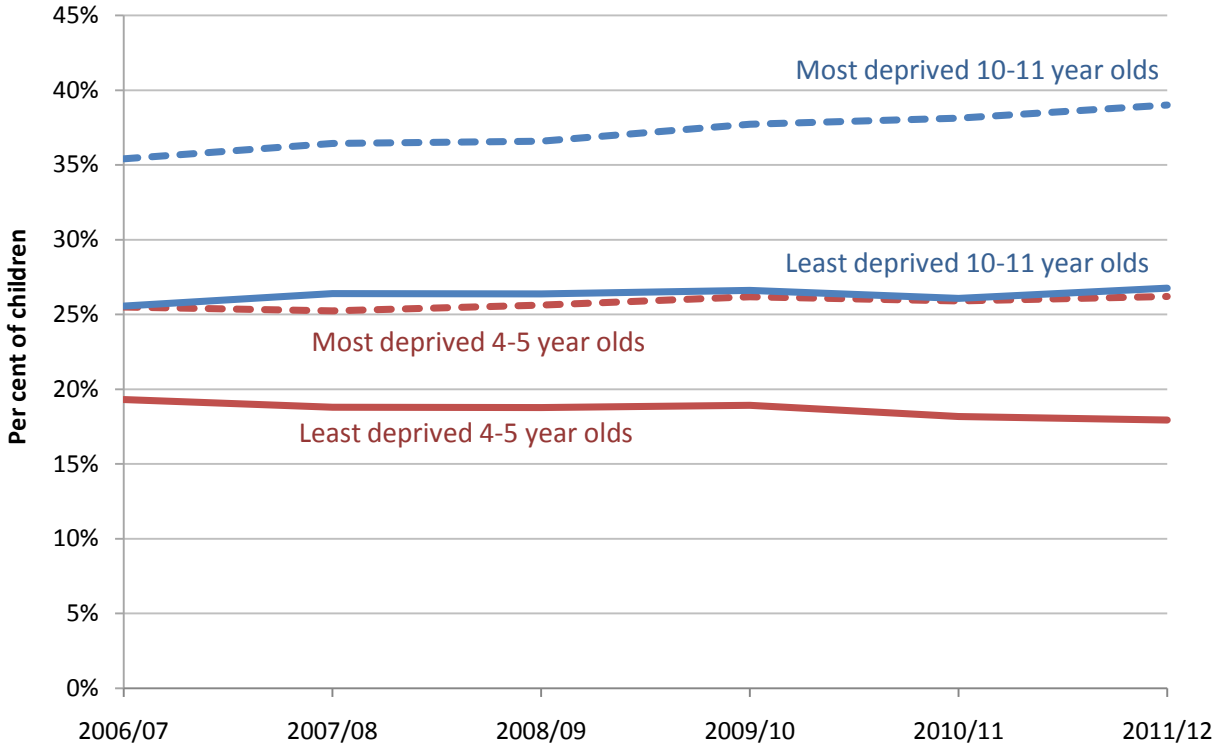


Source: HSCIC (Health and Social Care Information Centre)
Notes:
1. Adults are aged 16 years and over, children are aged between 2 and 15. The data for children aged 4-5 and aged 10-11 is collected on a financial year basis such that 2011 represented 2011/12.
2. All years were weighted to adjust for the probability of selection, and from 2003 non-response weighting was also applied.
3. In 2008 the definitions for children who were overweight or obese were revised from those used in previous years to correct an error which meant that small numbers of children that should have been classified as either 'overweight' or 'obese' were omitted from these categories because of rounding of age and BMI thresholds. In no cases were results significantly different from those presented previously.

- The prevalence of overweight and obesity increased between 1993 and 2011 in all age groups. The biggest rise can be seen in the adult population, which increased by 8.8 percentage points over the time period. This increase could be due to poor diet and sedentary lifestyles amongst the population.
- In 2011 the prevalence of overweight and obesity in children fell by 4.3 percentage points from a peak of 34.3 per cent in 2004; however, it still remains higher than the level in 1995. Rates of childhood obesity vary depending on the deprivation level and age of the child (figure 20.2). Children from more deprived backgrounds have a

higher prevalence of overweight and obesity than children that are less deprived. This gap has widened between 2006/07 and 2011/12.

Figure 20.2: Percentage of children overweight or obese based on deprivation level, England, 2006/07 to 2011/12



Source: National Child Measurement Programme, HSCIC
Notes: Most deprived refers to children in the most deprived 10% of areas as measured by DCLG's Index of Multiple Deprivation

Indicator Assessment

	Long term	Short term	Latest year
Percentage of adults overweight or obese	(1993)	(2006)	Decreased
Percentage of children (2-15) overweight or obese	(1995)	(2006)	No Change

Links

Organisation	Subject
Obesity Knowledge and Intelligence, Public Health England	Obesity
Department of Health	Public Health Outcomes Framework
	Public Health Outcomes Framework data tool
Information Centre for Health and Social Care	Statistics on Obesity, Physical Activity and Diet, 2013

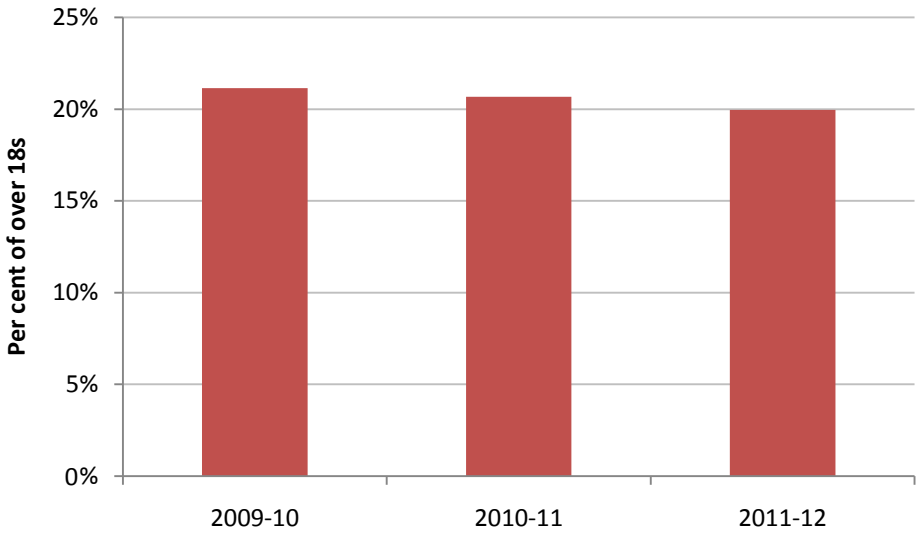
21. Lifestyles

A healthy and active population is vital to making the country a more sustainable society. Good diet, exercise and a healthy lifestyle can lead to long-term benefits for both health and general wellbeing. This section presents some example measures relating to lifestyle.

Prevelance of smoking among adults

This indicator features in the Public Health Outcomes Framework for England. Smoking is an unhealthy lifestyle choice that is linked with a range of long-term health problems.

Figure 21.1: Proportion of over 18s who smoke, England, 2009/10 to 2011/12



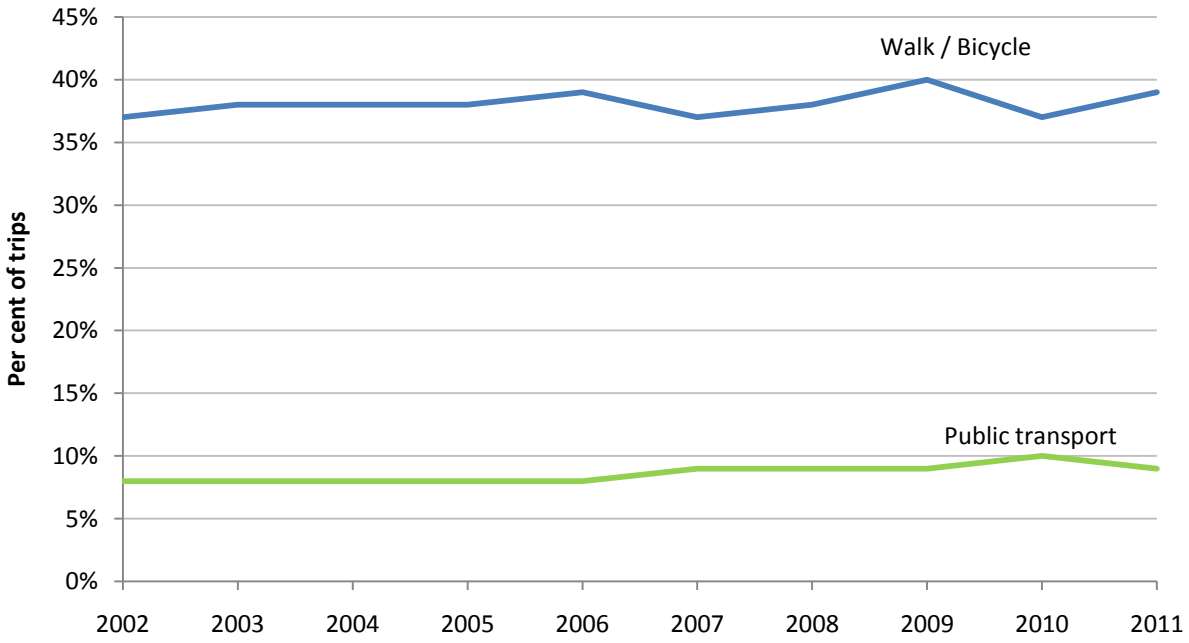
Source: Integrated Household Survey, ONS (experimental statistics)

- Prevalence of smoking has fallen by 1.2 per cent between 2009-10 and 2011-12. This difference is statistically significant.

Proportion of urban trips under 5 miles taken by sustainable method

The use of sustainable local travel contributes to improvements in road safety and in public health. This indicator shows the proportion of all trips under 5 miles by English residents living in an urban area (settlement over 3,000 population) where the main mode of transport was walking or cycling and public transport.

Figure 21.2: Proportion of urban trips under five miles taken by: (i) walking or cycling; (ii) public transport, England, 2007 to 2011



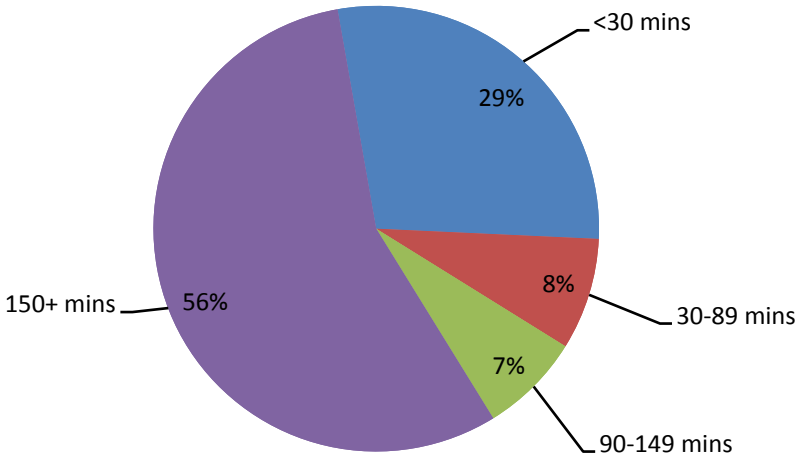
Source: National Travel Survey, Department for Transport

- In 2011, 39 per cent of urban trips under five miles in England were taken by walking or cycling and nine per cent were taken by public transport. Since 2007 the proportion of urban trips taken by walking or cycling and public transport has remained constant.

Proportion of physically active and inactive adults

Physical activity is a core aspect of maintaining a healthy lifestyle. Lack of sufficient physical activity costs the NHS over £1bn per year – £6.5bn per year to the wider economy – and is one of the top few risk factors for premature mortality. This indicator is aligned with the Public Health Outcomes Framework. Physical activity in this indicator includes sport, recreational cycling, recreational walking, walking and cycling for travel purposes, dancing and gardening. The PHOF defines physically active adults as those adults "doing more than 150 minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more."

Figure 21.3: Proportion of adults doing physical activity by time spent exercising, England, 2012-13



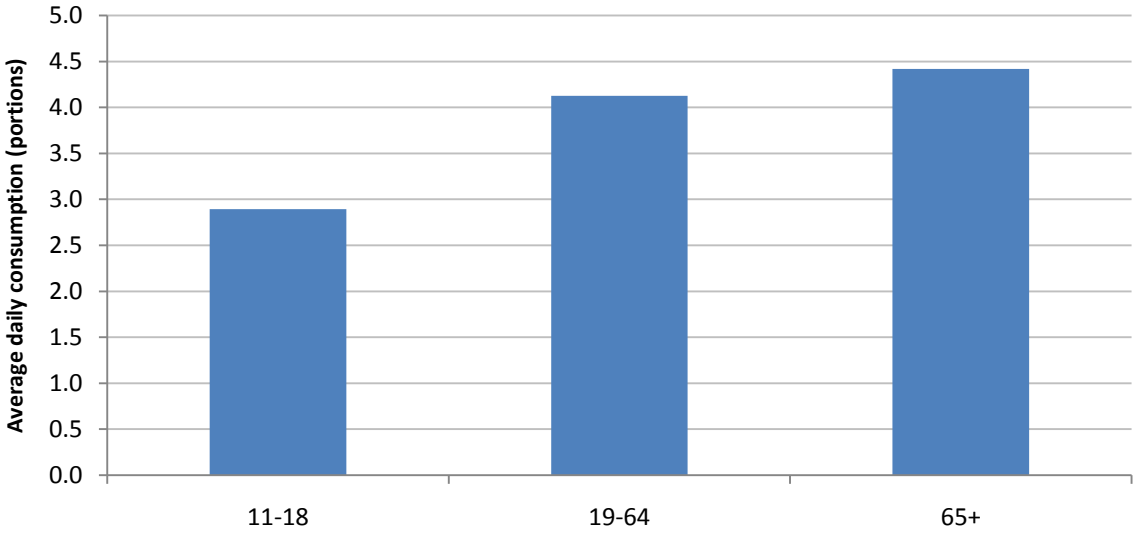
Source: Public Health England, Active People Survey Jan 2012-Jan 2013.

- Over half of the population are undertaking at least the recommended 150 minutes of exercise per week.
- Just under a third (29 per cent) of the population does less than 30 minutes of exercise per week. In total, 44 per cent of adults are not doing the recommended amount of weekly activity.

Average daily consumption of fruit and vegetables

Fruit and vegetables are key components to a healthy balanced diet and an important part of a healthy lifestyle.

Figure 21.4: Average daily consumption of '5-a-day' portions by age group, UK, 2008/09 to 2010/11



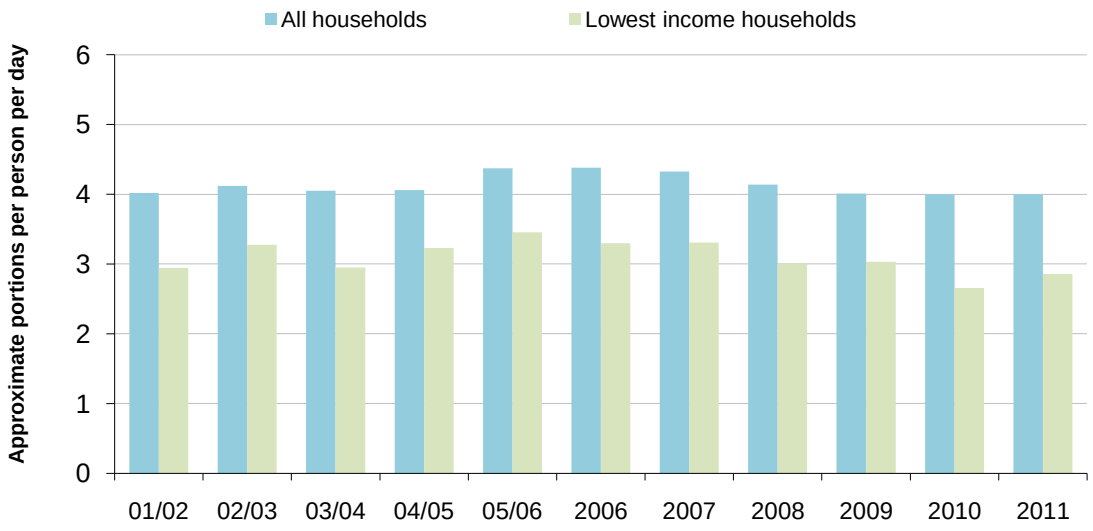
Source: National Diet and Nutrition Survey, Department of Health. Combined data for 2008-9, 2009-10 and 2010-11.
Notes: Includes fruit and vegetables as part of composite dishes, but excludes potatoes. Fruit juice is included, up to a maximum contribution of one portion per day. Baked beans and other pulses are included, up to a maximum contribution of one portion per day.

- On average adults consumed over four portions of fruit and vegetables per day in the three survey years to 2010-11. Children aged between 11 and 18 ate on average fewer than three portions per day.

Low income households

Trends in fruit and vegetable purchasing from Defra's Family Food Survey can be presented for low income groups. The statistics from Family Food are not directly comparable with those from the NDNS because of the different data collection methods used in the surveys. They also reflect portions bought rather than eaten and do not take into account fruit and vegetables consumed as part of composite dishes. A future report in the NDNS series will present a basic analysis of food consumption by equivalised income group.

Figure 21.5: Trends in fruit and vegetable purchases measured as portions, UK, 2001/02 to 2011



Source: Family Food in 2011, Defra
Notes: Excludes potatoes

- Daily fruit and vegetable purchases are at a similar average level for all households as they were in 2001-2 at four portions. There was a temporary increase to an average of 4.4 portions in 2005-6 and 2006.
- Households with the lowest income[11] purchase roughly one portion of fruit and vegetables less per day than the overall average. The trend over time is similar to the overall trend, with 2.9 purchases per person per day both in 2001-2 and 2011 and a temporary increase to 3.5 portions per day in 2005-6.

Indicator Assessment

	Long term	Short term	Latest year
Prevalence of smoking among adults			Decreased
Proportion of adults doing the recommended 150 minutes of physical activity each week			n/a
Proportion of urban trips under 5 miles taken by walking or cycling		 (2006)	Decreased
Proportion of urban trips under 5 miles taken by public transport		 (2006)	Increased
Average daily consumption of fruit and vegetables			n/a

[11] Lowest income households are those with incomes in the lowest ten per cent of all households.

Links

Organisation	Subject
Department of Health	Public Health Outcomes Framework
Public Health England	Active People Survey
Department for Transport	National Travel Survey
Department of Health	National Diet and Nutrition Survey
Department for Transport	Family Food

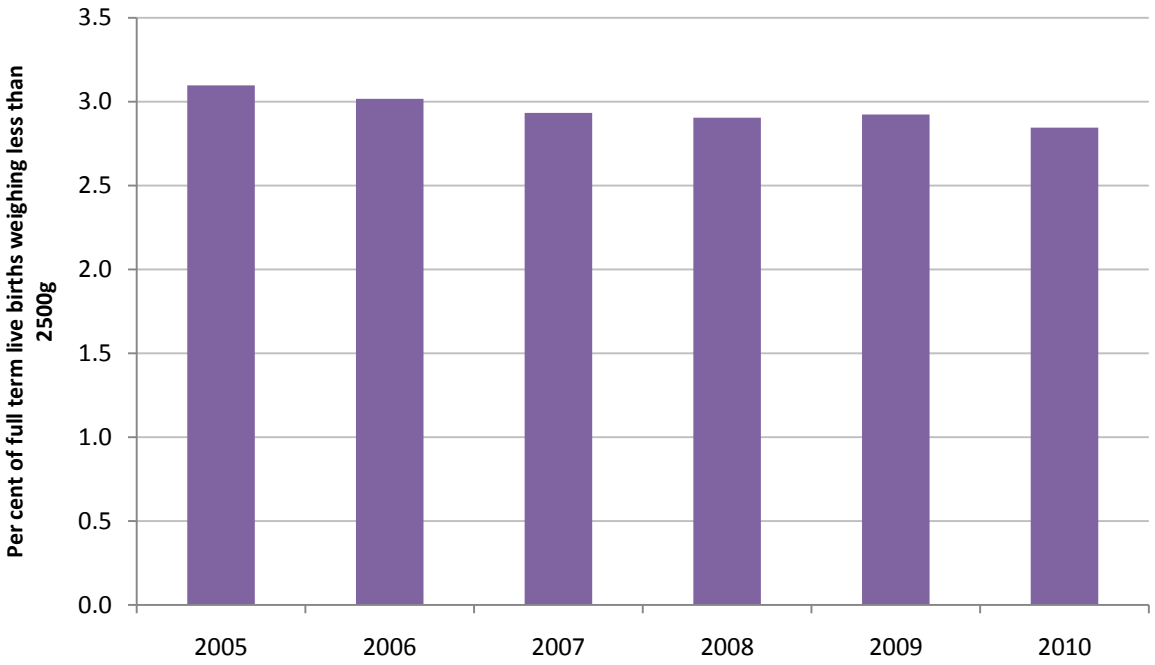
22. Infant Health

Incidence of low birth weight in full term live births

Birth weight can be an important indicator of community health and health inequalities, which are key issues for the long term health of our society.

This indicator shows low birth weight of full term live births in England where the birth weight is less than 2,500g and corresponds with the Public Health Outcomes Framework indicators.

Figure 22.1: Proportion of full term live births with weight less than 2,500g, England, 2005 to 2010



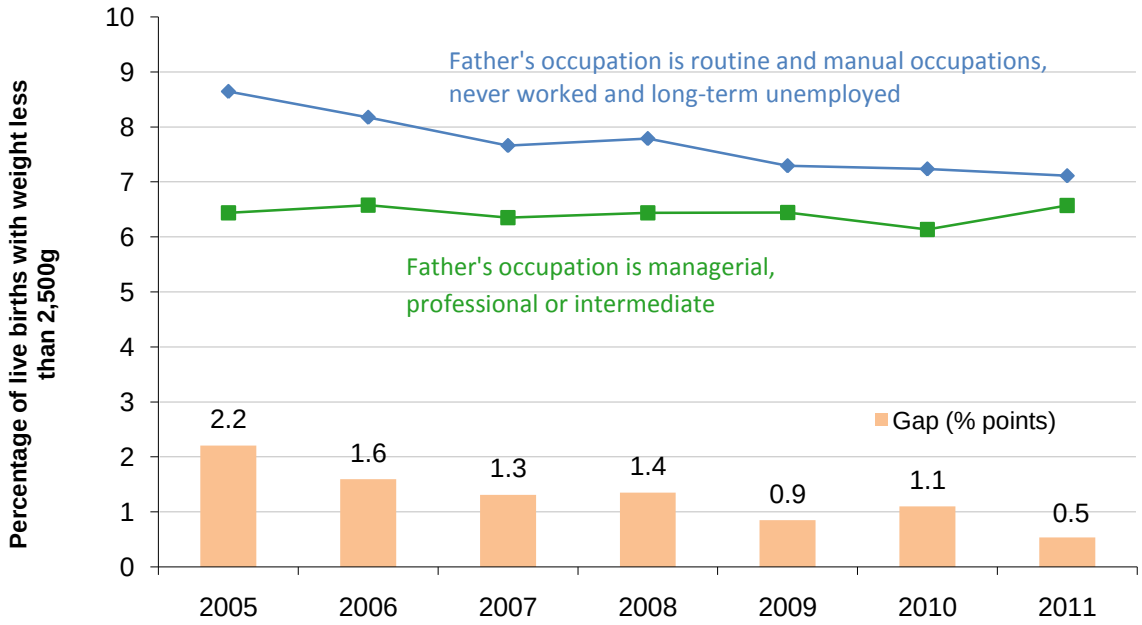
Source: ONS

- In 2010, 2.8 per cent of full term live births had a low birth weight.
- The proportion of full term live births that weigh less than 2,500g in England fell by nine per cent between 2005 and 2010.

Differences in socio-economic groups

An analysis of low birth weight by father's occupation can highlight any differences between different socio-economic groups. This breakdown is not currently available for full-term births so the analysis is presented for all live births. As such it includes premature babies and therefore the proportion of babies born with a low birth weight is higher in figure 22.2 than in figure 22.1.

Figure 22.2: Proportion of all live births with weight less than 2,500g and fathers occupation, England, 2005 to 2011



Source: ONS
Notes: The National Statistics Socio-Economic Classification (NS-SEC) derives socio-economic categories based on occupation.

- Where father's occupation was routine, manual or long term unemployed, 7.1 per cent of live births weighed less than 2,500g. For this group, the proportion of live births with a low birth weight decreased between 2005 and 2011.
- Where father's occupation was managerial or professional 6.6 per cent of live births weighed less than 2,500g. Over the period 2005 to 2011 the proportion of live births with a low birth weight in this group increased slightly.
- This means that while there was still a higher rate of low birth weight in births where father's occupation was routine, manual or long term unemployed, in 2011 the gap between the two socio-economic groups decreased to 0.5 percentage points, its lowest value since 2005.

Indicator Assessment

	Long term	Short term	Latest year
Incidence of birth weight less than 2,500g in full term live births in England		 (2005)	Decreased

Links

Organisation	Subject
Department of Health	Public Health Outcomes Framework Public Health Outcomes Framework data tool
Office for National Statistics	Health and Social Care
	National Statistics Socio-Economic Classification

23. Air Quality

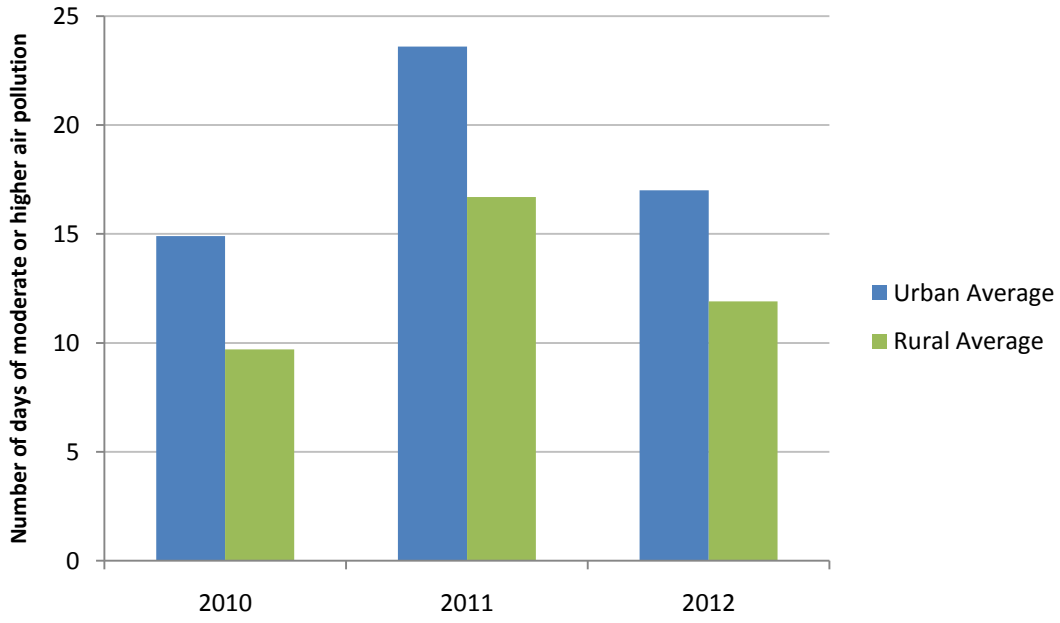
Green Economy Indicator

Days when air quality is moderate or higher in the UK

Poor air quality can have effects on health and wellbeing due to both short term and long term exposure. Individuals with existing heart or respiratory conditions are at greater risk of experiencing effects when levels of air pollutants rise. The number of days when air quality is "moderate or higher" is an indicator of how often air pollution is raised to levels when there is an increased risk of health effects from short term exposure.

Through improving air quality people will be at less risk from the effects of poor air quality and may be more likely to spend more time in the natural environment. An improvement in air quality would be reflected by a lower number of pollution days in this indicator.

Figure 23.1: Days when air pollution is moderate or higher, UK, 2010 to 2012



Source: R- AEA Energy & Environment, Defra
Notes: Monitoring data from Defra's UK network[12] form the basis of this indicator and pollution days are defined using the Daily Air Quality Index (DAQI) banding system[13, 14] recommended by the Committee on Medical Effects of Air Pollutants (COMEAP)[15]. The system uses an index numbered 1-10, divided into four bands (1-3=low, 4-6=moderate, 7-9=high and 10=very high) to provide more detail about air pollution levels in a simple way. The DAQI is determined by the highest concentration of five pollutants – particulate matter (PM_{10} and $PM_{2.5}$), nitrogen dioxide, sulphur dioxide and ozone.

- The average number of pollution days in urban sites in 2012 was 17 days. This compares with 24 days in 2011 and 15 days in 2010. The average number of

[12] UK-Air Defra
[13] UK- Air, Daily Air Quality Index
[14] Implementation of the Daily Air Quality Index
[15] Health Protection Agency, Review of the UK Air Quality Index 2011

pollution days in rural sites in 2012 was 12 days, compared with 17 days in 2011 and 10 days in 2010.

- Differences in meteorological conditions can have a strong effect on these figures and therefore more data would be required before any year-on-year trends could be implied.
- These data recently underwent a methodological review and the previous time series, which ran from 1987, is no longer comparable. As a result only three years of data are presented and no trends can be implied. For details of the changes to the method please see the latest statistical release.

Indicator Assessment

	Long term	Short term	Latest year
Number of air pollution days classed as moderate or higher- urban			Decreased
Number of air pollution days classed as moderate or higher- rural			Decreased

Links

Organisation	Subject
Department for Environment, Food and Rural Affairs	Air Quality Statistics

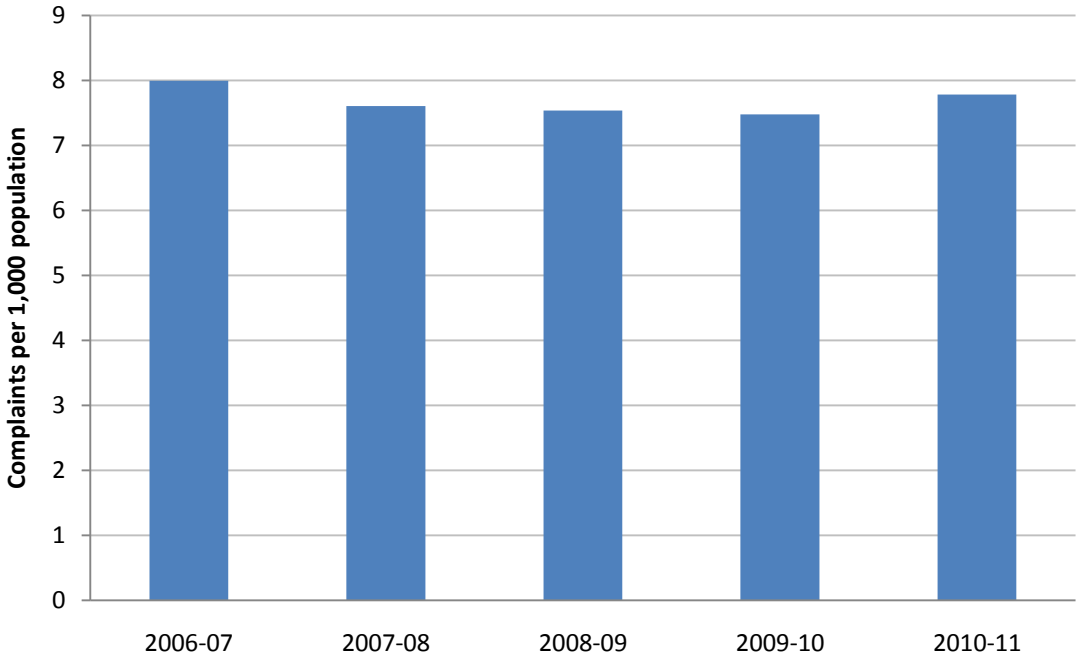
24. Noise

Proportion of people making noise complaints

This indicator comprises information about noise complaints and exposure to transport noise. It also features in the Public Health Outcomes Framework for England.

There are a number of direct and indirect links between exposure to noise and health outcomes such as stress, heart attacks, and other health and wellbeing issues. Complaints about noise are the largest single cause of complaint to most local authorities and there is evidence that exposure to noise is a key determinant of health and wellbeing.

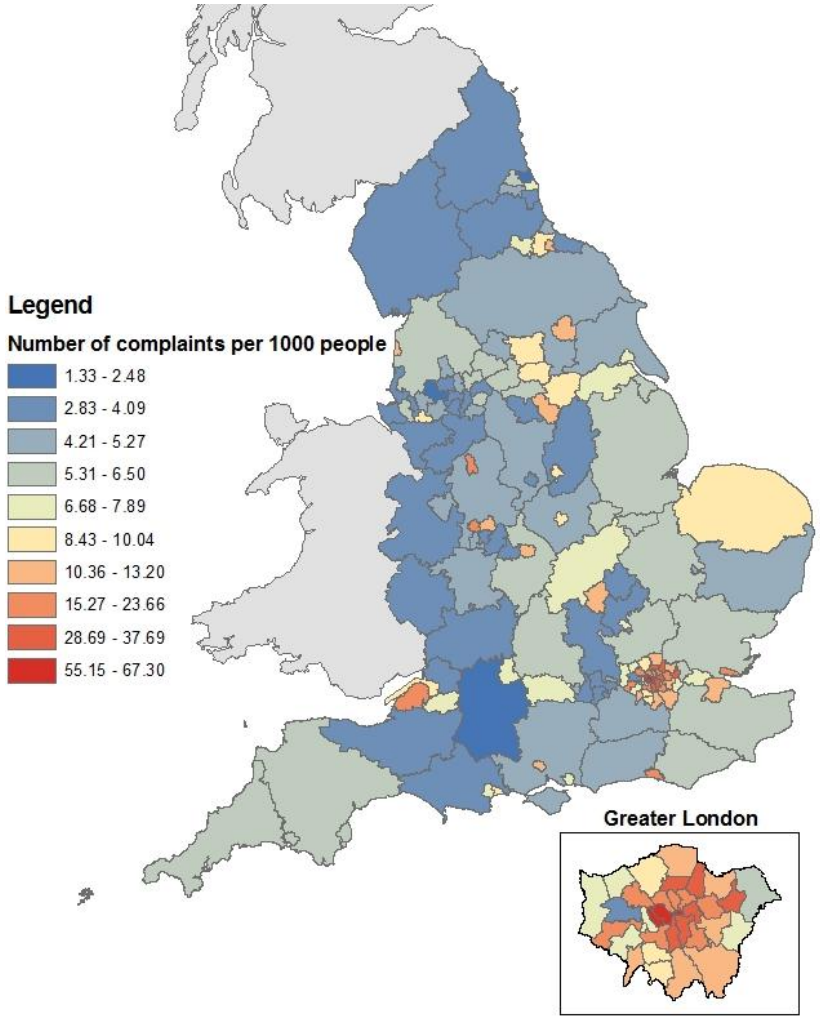
Figure 24.1: Noise complaints per 1,000 population, England, 2006/07 to 2010/11



Source: Defra, CIEH

- In 2010/11 there was an average of 7.8 complaints about noise per 1,000 people in England, equivalent to around 1,100 complaints per day.
- While there have been small fluctuations in the year-on-year number of complaints per 1,000 population between 2006/07 and 2010/11, there is considerable regional variation. The map in figure 24.2 shows that in 2010/11 the City of London had the highest proportion of complaints with 67 per 1,000 population. The area with the fewest complaints per 1,000 population in 2010/11 was Wiltshire with 1.3.

Figure 24.2: Map showing number of noise complaints per 1,000 people by county, 2010/11 (England average = 7.8)



Indicator Assessment

	Long term	Short term	Latest year
Percentage of the population affected by noise	...	≈ (2006/07)	Increased

Links

Organisation	Subject
World Health Organisation	Guidelines for community noise
Department of Health	Public Health Outcomes Framework Public Health Outcomes Framework data tool

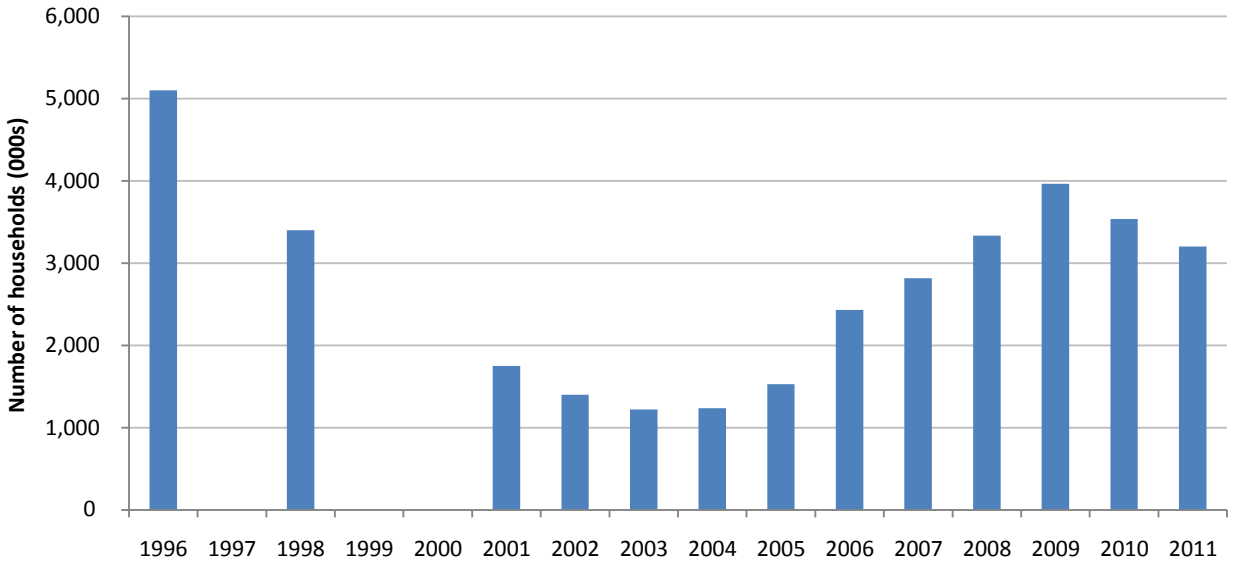
25. Fuel Poverty

Green Economy Indicator

Number of households living in fuel poverty under the 10 per cent full income definition

Fuel poverty is a serious problem from three main perspectives: *poverty*, because high energy costs can exacerbate difficulties faced by those on low incomes; *health and wellbeing*, because it is responsible for a range of issues such as social exclusion, cardiovascular problems and excess winter deaths; and *carbon*, because the energy inefficiency of the homes of those living in fuel poverty is a concern in terms of reducing carbon emissions[16].

Figure 25.1: Total number of households living in fuel poverty under the 10 per cent full income definition, England, 1996 to 2011



Source: DECC.
Notes: Under the 10 per cent definition a household is said to be fuel poor if it needs to spend more than 10 per cent of its income on fuel to maintain an adequate level of warmth (usually 21 degrees for the main living area, and 18 degrees for other occupied rooms).
Figures not calculated for 1997, 1999 and 2000

Under this definition, increasing household income helps to reduce the proportion of households and reducing income has the opposite effect, i.e. more household enter into fuel poverty. Decreasing fuel prices and/or improvements made to the energy efficiency of the home can also reduce fuel poverty, while rising prices will have the opposite effect.

- In 2011 there were 3.2 million fuel poor households in England, 300 thousand fewer than in 2010.

[16] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48297/4662-getting-measure-fuel-pov-final-hills-rpt.pdf

- As a result of falling prices and rising incomes fuel poverty decreased from 1996 to 2003. However there was a sharp rise in the proportion of households in fuel poverty between 2004 and 2009. This coincided with an increase in energy prices: domestic electricity prices rose by over 75 per cent, and gas prices increased by 122 per cent[17].
- This pattern reversed from 2010 onwards, when the combined effect of rising incomes and energy efficiency standards (particularly among lower income households) began to outweigh the effects of increasing energy prices.

Indicator Assessment

	Long term	Short term	Latest year
Number of households in fuel poverty	(1996)	(2006)	Decreased

Links

Organisation	Subject
Department of Energy and Climate Change	Fuel poverty report 2013
	Fuel poverty data tables

[17] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/171915/qep_mar_2013.pdf

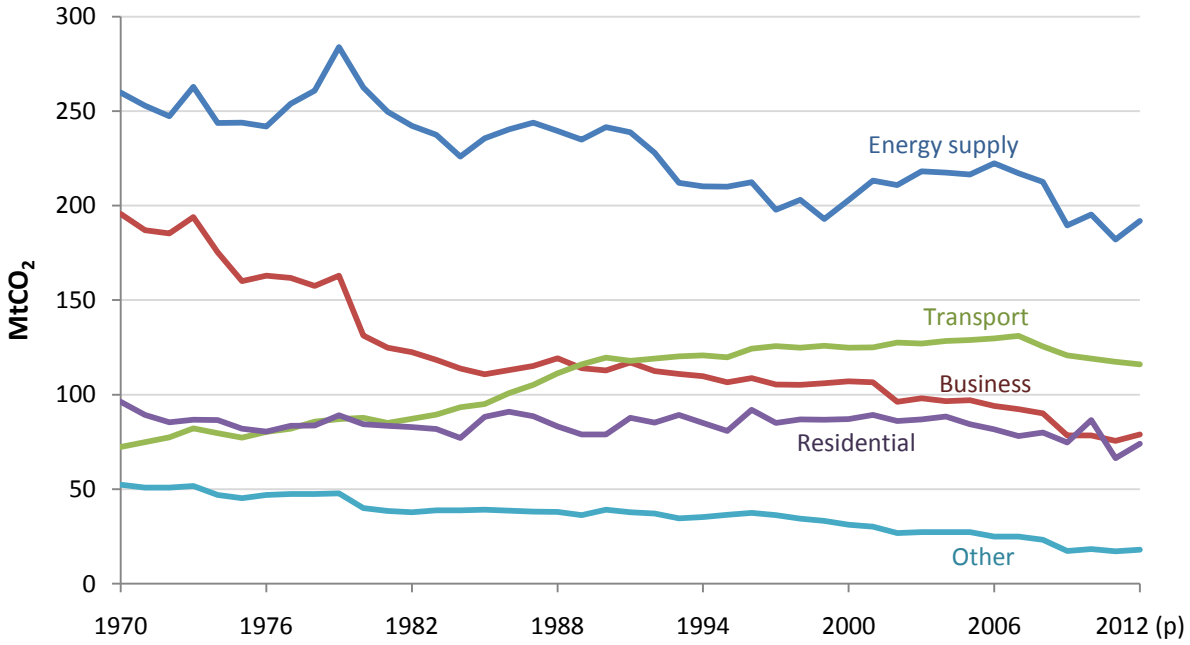
26. UK CO_2 Emissions by Sector

Green Economy Indicator

Carbon dioxide emissions by sector

The key sectors of the UK economy will produce varying amounts of emissions. To limit our impact on the world's climate it is important that all sectors emit less carbon dioxide over time.

Figure 26.1: Annual emissions per sector measured in million tonnes of carbon dioxide ($MtCO_2$), UK, 1970 to 2012



Source: ONS
Notes: estimates for 2012 are provisional (p).

- Overall the trend is similar to that seen in the total emissions indicator with most of the sectors decreasing their emissions in the last decade. There appears to have been a small increase in emissions by several sectors in 2012.
- Transport emissions grew notably between 1970 and 2000. This is likely to have been a result of private and public transport becoming more accessible to a wider population. However, the trend has seen a decline since 2007.

Indicator Assessment

	Long term	Short term	Latest year
Energy Supply	 (1970)	 (2007)	Increased
Transport	 (1970)	 (2007)	Decreased
Business	 (1970)	 (2007)	Increased
Residential	 (1970)	 (2007)	Increased
Other	 (1970)	 (2007)	Increased

Links

Organisation	Subject
Office for National Statistics	Environmental Accounts
Department of Energy and Climate Change	Greenhouse Gas Emissions
	Approaches to Reporting Emissions

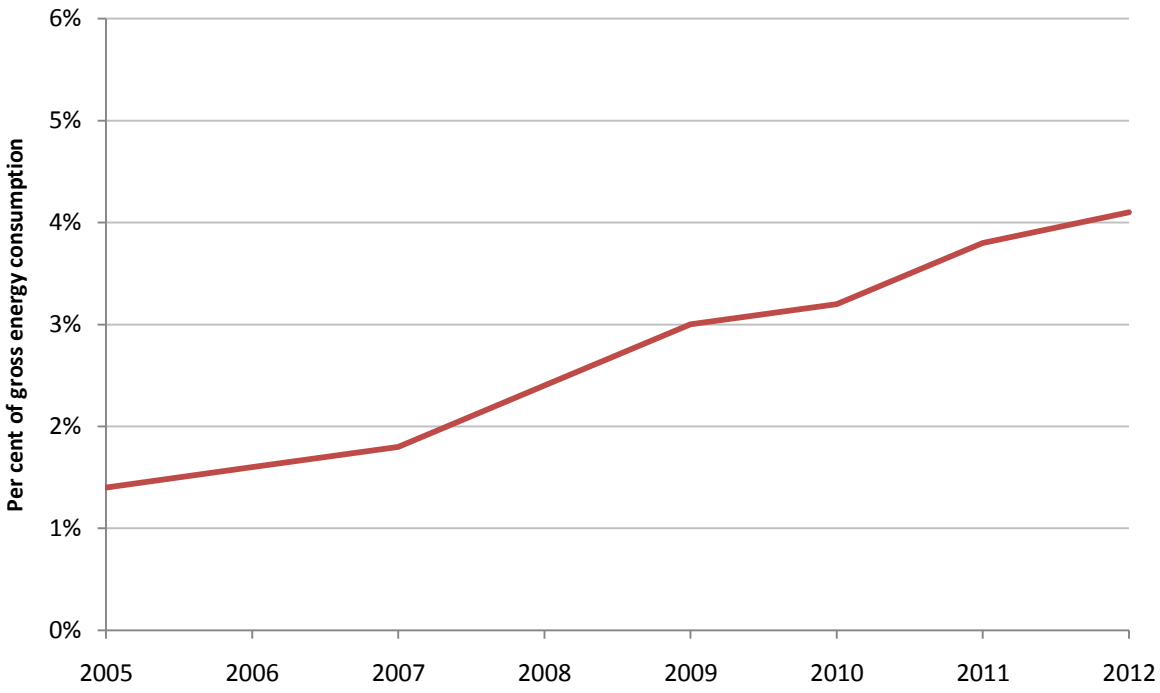
27. Energy from Renewable Sources

Green Economy Indicator

Proportion of energy consumed in the UK from renewable sources

Exploiting renewable resources will make a strong contribution to our energy needs and allow us to be less reliant both on other countries and on other non-renewable and less environmentally sound sources of energy.

Figure 27.1: Proportion of gross energy consumption from renewable sources, UK, 2005 to 2012



Source: DECC Energy Trends
Notes: Figures show overall renewable consumption as a percentage of capped gross final energy consumption using net calorific values (normalised), calculated using the methodology proposed in the 2009 Renewable Energy Directive.

- In the UK during 2012 4.1 per cent of final energy consumption was from renewable sources.
- Between 2005 and 2012 the proportion final energy consumption from renewable sources has almost tripled, from 1.4 per cent to 4.1 per cent. This represents a 2.7 percentage point increase.

Indicator Assessment

	Long term	Short term	Latest year
Proportion of gross energy consumption from renewable sources	...	✓ (2007)	Increased

Links

Organisation	Subject
Department of Energy and Climate Change	Renewable Energy in 2012
	Renewables statistics

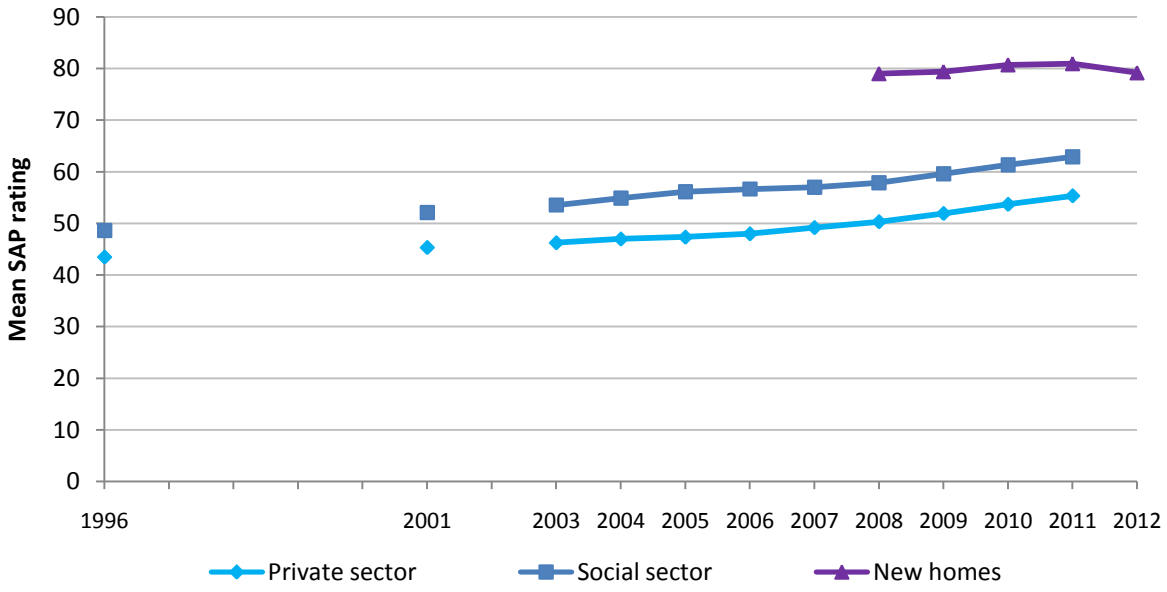
28. Housing Energy Efficiency

Green Economy Indicator

Average housing energy efficiency rating

More energy efficient dwellings are essential if the UK is to make reductions in its greenhouse gas emissions.

Figure 28.1: Mean SAP rating by tenure, England, 1996 to 2012



Source: Private and social sector homes for 1996-2007, England House Condition Survey; from 2008 onwards, English Housing Survey, dwelling sample. New homes (2008 onwards): National Energy Performance Certificate Register. Department for Communities and Local Government.
Notes: Data for private and social sector 1996 to 2011; data for new homes 2008 to 2012

- The Standard Assessment Procedure (SAP) is a way of assessing and comparing the energy and environmental performance of dwellings.
- Housing in the social sector on average receives higher ratings than those in the private sector.
- The average energy efficiency rating of houses in England has improved over time, with an increase of 12 SAP points in the private sector and 14 points in the social sector between 1996 and 2011.
- The energy efficiency rating of new homes is higher than other types of housing; in 2011 new homes were rated as 18 points higher than social sector homes and 26 points higher than private sector homes.

Indicator Assessment

	Long term	Short term	Latest year
Mean SAP rating of existing housing	(1996)	(2006)	Increased
Mean SAP rating of new homes			Decreased

Links

Organisation	Subject
Department for Communities and Local Government	English Housing Survey
	English Housing Survey headline report 2011/12
	English Housing Survey data
Department of Energy and Climate Change	Standard Assessment Procedure

29. Waste Disposal and Recycling

Green Economy Indicator

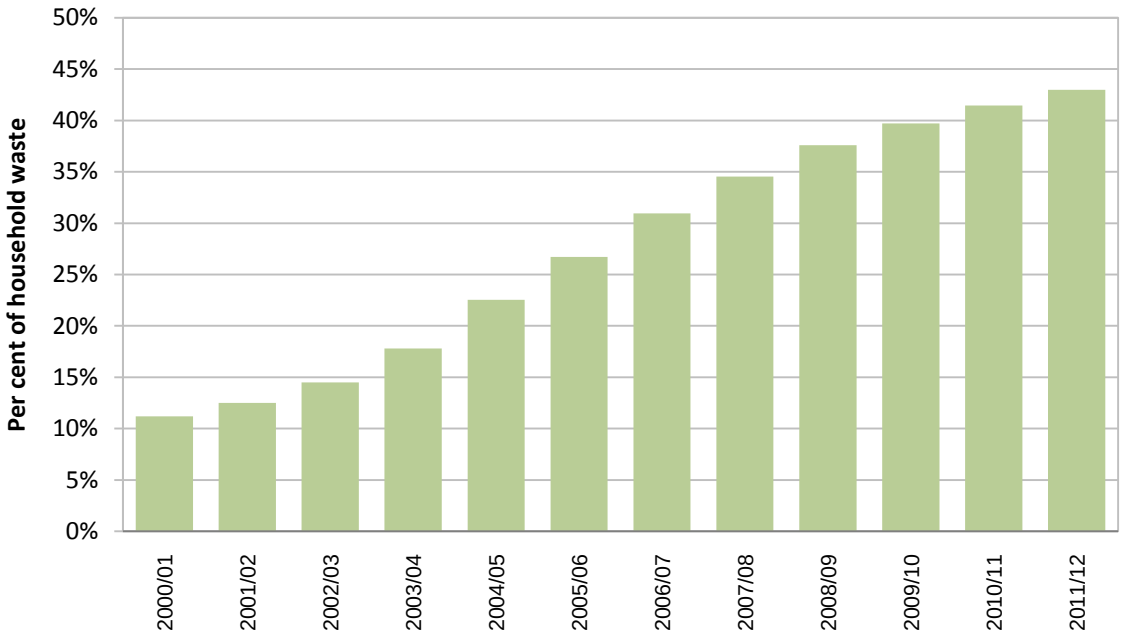
Household and construction waste

The types of waste we produce, all forms of waste management, and the transport of waste have impacts on the environment. Waste is a potential resource and increased rates of reuse, recycling and energy recovery will result in a lower proportion of waste being disposed of in a way that causes environmental damage.

Household waste

In order to move towards a European recycling society with a high level of resource efficiency, EU targets for preparing for re-use and recycling of household waste have been set. Under the Revised Waste Framework Directive, the EU has set a target for 50 per cent of household waste to be recycled by 2020.

Figure 29.1: Household waste recycling rate, England, 2000/01 to 2011/12



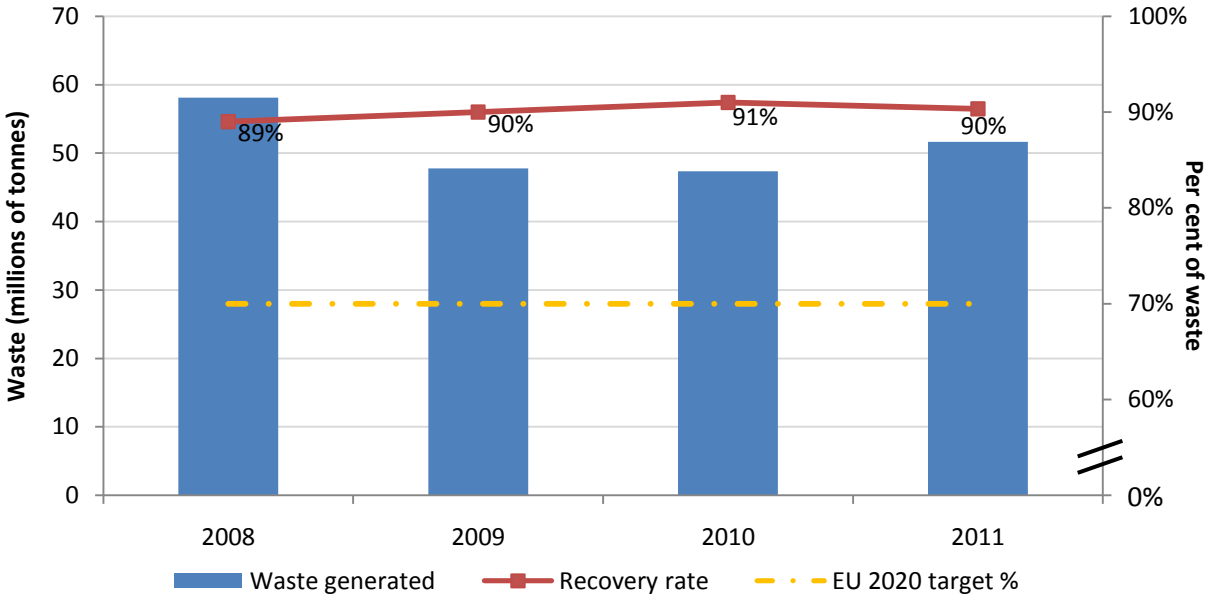
Source: WasteDataFlow.
Note: Indicator is under development and will eventually cover the UK and be published by calendar year.

- Between 2000/01 and 2011/12 the household waste recycling rate increased from 11 per cent to 43 per cent.
- The amount of waste recycled, composted or reused in 2011/12 was 10.7 million tonnes out of a total of 25.6 million tonnes collected from households.
- The increase in 2011/12 was the smallest for ten years with the rate of increase slowing since its peak around 2005.

Construction and demolition waste

The EU has identified construction and demolition waste as a priority waste stream. Many of its components have a high resource value and there is high potential for recycling. This type of waste is also one of the heaviest and most voluminous waste streams generated in the EU. Under the Revised Waste Framework Directive, the EU has set a target for 70 per cent of Construction and Demolition waste to be recovered from landfill by 2020.

Figure 29.2: Construction and demolition waste recovery rate, England, 2008 to 2011



Source: Environmental permits to operate landfill, Environment Agency
Note: Indicator is under development and will eventually cover the UK.

- The UK construction and demolition recovery rate has been close to 90% all four years that the indicator has been measured. Almost 46.5 million tonnes of waste were recovered.
- Construction and demolition waste is disposed of directly at landfill sites, via transfer and treatment facilities or recycled as aggregate.

Indicator Assessment

	Long term	Short term	Latest year
Proportion of household waste recycled	 (2000/01)	 (2006/07)	Increased
Proportion of construction and demolition waste recovered			Decreased

While there has been progress towards the EU target of a household recycling rate of 50 per cent by 2020, progress over the short term has been slowing and as such the household waste measure has been assessed as showing no change over the short term.

Links

Organisation	Subject
Defra	Waste and Recycling
Defra	Waste Management Statistics
EU	Construction and Demolition Waste
WasteDataFlow	Waste Data Flow

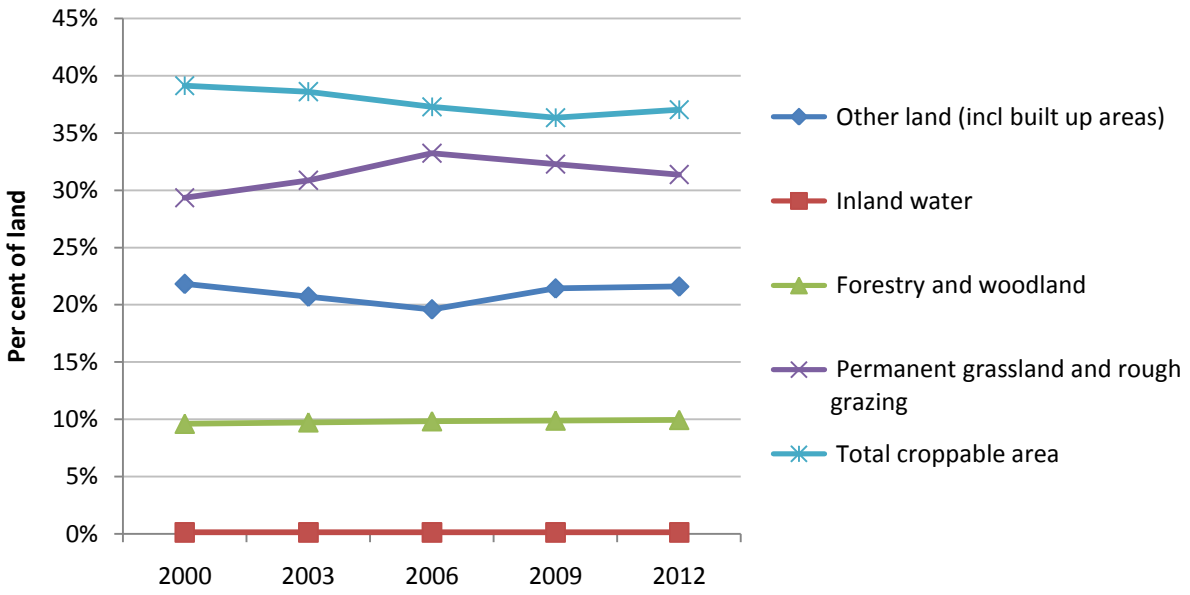
30. Land Use

Green Economy Indicator

Land use by type (context only)

Sustainable use of land is important in delivering development as well as protecting the natural and historic envirnonment.

Figure 30.1: Land use by type, England, 2000 to 2012



Source: Defra Survey of Agriculture and Horticulture; Forestry Commission, Forest Service, National Forest Inventory; Office for National Statistics

Notes:

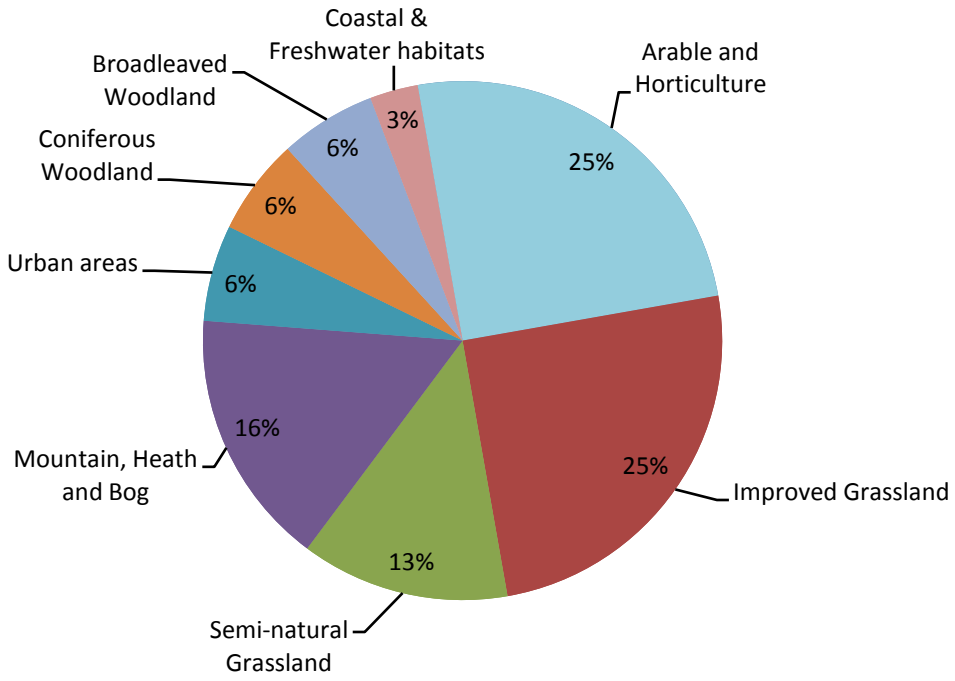
1. Results for agricultural land use relate to commercial holdings. Commercial holdings are those with significant levels of farming activity.
2. Figures for 'other land' are derived by subtracting land used for forestry or commercial agricultural purposes from the total land area. This includes urban land and land used for other purposes, e.g. transport and recreation, non-agricultural, semi-natural environments (e.g. sand dunes, grouse moors and non-agricultural grasslands) and non-commercial agricultural purposes.

- An increase in land used for permanent grassland and rough grazing between 2000 and 2006 coincided with a decrease in croppable area and land used for other purposes
- In 2012 over 78 per cent of land in England was used for commercial agricultural purposes or forestry and woodland.

The ‘other uses’ category in presented in figure 30.1 only gives a very broad indication of what land is used for and includes built up area as well as non-commercial agricultural area and other non-agricultural uses. As a result, more detailed figures on land cover have been presented in figure 30.2 based on detailed satellite images taken between 2005 and 2008.

The data used in this chart is not directly comparable to the data in figure 30.1. It uses a different data source and data collection methodology and shows the breakdown for the UK rather than England only.

Figure 30.2: Detailed land use by type from the Land Cover Map, UK, 2007



Source: Land Cover Map, 2007, Centre for Ecology and Hydrology
Notes: Land cover was derived from more than 70 satellite images collected between 2005 and 2008. The satellite images contain spectral information which corresponds to different ground surfaces and vegetation types in both summer and winter. An automated classification process was used to assign a land cover type based on existing Biodiversity Action Plan (BAP) Broad Habitats to approximately 10 million land parcels. The fine-grained detail behind this UK-level data means it is not comparable with the broad land use by type figures for England presented in figure 30.1.

- According to the Land Cover Map, six per cent of the UK is covered by urban land, the same as both coniferous and broadleaved woodland.

Indicator Assessment

This indicator is not assessed because the impacts of changes in land use vary depending on local circumstance, and therefore at a national level there is no clear favourable direction for the assessment to measure progress against. However, the indicator is included to provide some general context as to patterns of development to be considered alongside other indicators.

Links

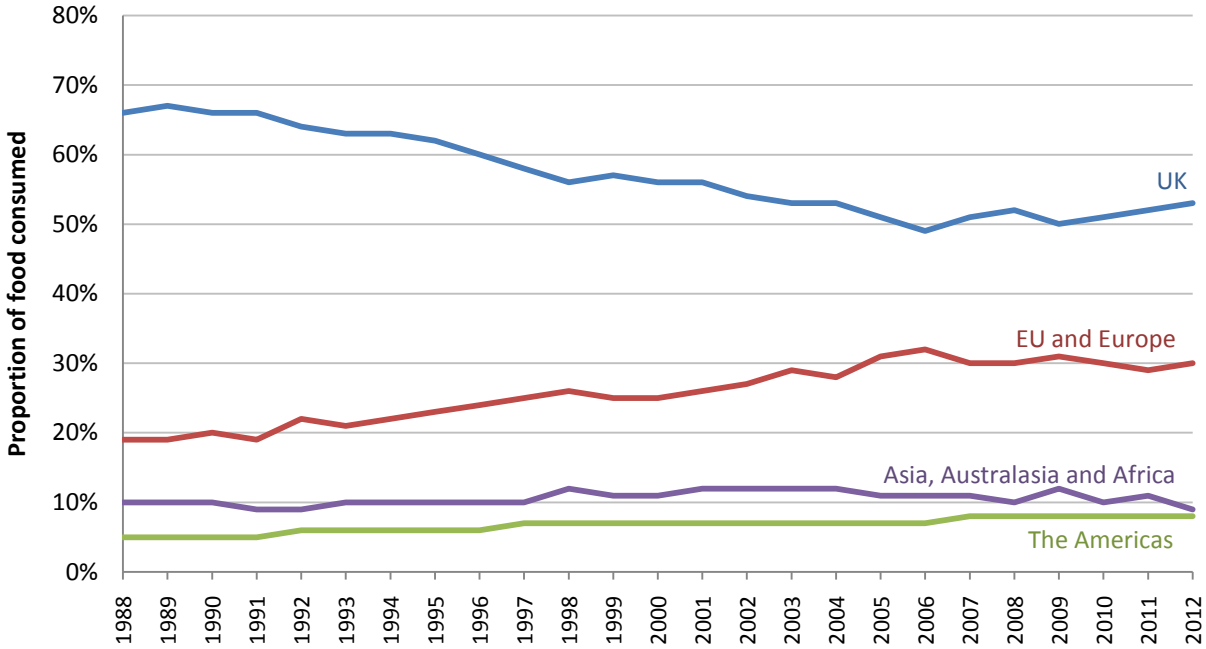
Organisation	Subject
Department for Environment, Food and Rural Affairs	Statistics on the agricultural industry
Forestry Commission	Forestry Statistics 2012
Department for Communities and Local Government	Land Use Change Statistics
Centre for Ecology and Hydrology	Land Cover Map

31. Origins of Food Consumed in the UK

Proportion of food consumed in the UK from each region

Maintaining a range of supply sources means that any risk to our total food supply is spread, lowering the impacts of any unforeseen disruptions involving any particular trading partner or from within our domestic agriculture sector. However, it is important that we do not become too reliant on food from overseas as we can ensure higher standards while having a lower carbon footprint by producing food domestically.

Figure 31.1: Proportion of food consumed in the UK by region of origin, UK, 1988 to 2012



Source: Defra
Notes: Based on farm-gate value of raw food

- Over the last 25 years there has been a noticeable increase in food consumed from the EU and Europe as opposed to domestically produced food. However, over 50 per cent of food consumed in the UK is also produced in the UK.
- The proportion of food consumed from Asia, Australasia and Africa has remained steady since 1998, but consumption of food from North and South America has increased from five per cent in 1988 to eight per cent in 2012.

Indicator Assessment

This indicator is not assessed as there is no clear favourable direction for the assessment to measure progress against. Food security depends on access to the world market and there are risks both in being fully self-sufficient and fully reliant on other countries.

Links

Organisation	Subject
Department for Environment, Food and Rural Affairs	Agriculture in the United Kingdom
	Agriculture in the United Kingdom: food chain data

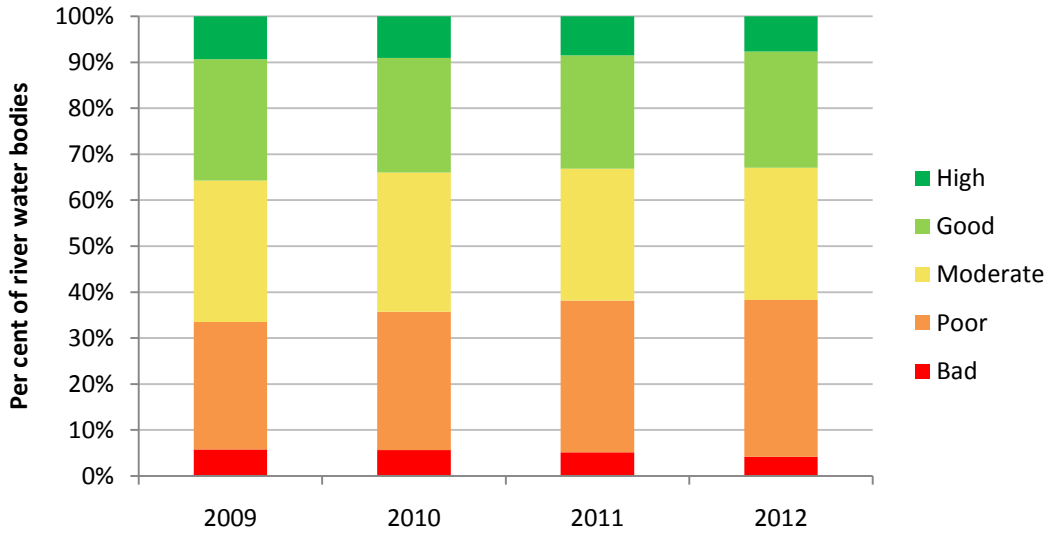
32. Water Quality

Green Economy Indicator

Biological and chemical quality of rivers

The indicator shows the biological quality of rivers using data from the Water Framework Directive assessment of water body status. Rivers are assessed as being in 'high', 'good', 'moderate', 'poor' or 'bad' status through a moving three-yearly monitoring programme.

Figure 32.1: The biological quality of rivers, England, 2009 to 2012



Source: Environment Agency

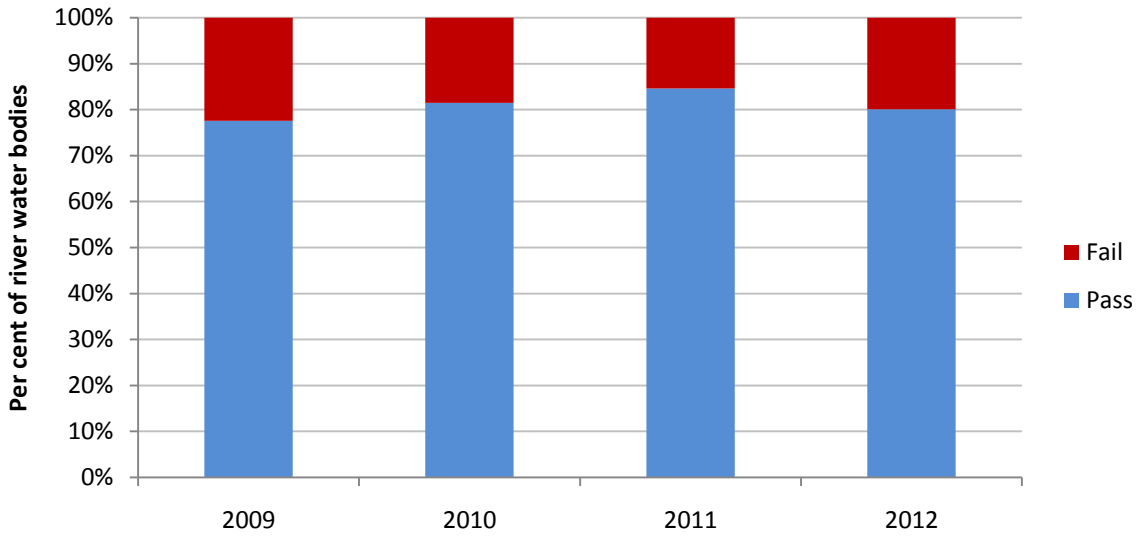
- The proportion of rivers at 'good' or 'high' biological quality has shown no significant change between 2009 and 2012.
- Between 2009 and 2012 the number of assessments classed as 'high' fell from 304 to 253 and the number of assessments classed as bad fell from 189 to 139. This suggests that there has been a mix of deteriorations and improvements in the biological quality of the water environment.
- Changes in water quality can happen for a number of reasons; while some of the differences between years will be due to measurement issues and monitoring locations, factors such as the climate and extreme weather events can also have an impact.

Chemical Status of Rivers

This indicator shows the chemical status of rivers using data from the Water Framework Directive assessment of water body status. Chemical status is assessed from compliance with environmental standards for chemicals that are priority substances and/or priority hazardous substances. A list of priority substances can be found in the Chemical Standards database on the Environment Agency's website. Chemical status

is recorded as ‘pass’ or ‘fail’ and is determined by the worst scoring chemical, so if one chemical fails the river is given a failing status.

Figure 32.2: The chemical status of rivers, England, 2009 to 2012



Source: Environment Agency

- The number of assessed rivers that have passed the chemical status criteria has increased from 411 in 2009 to 431 in 2012 suggesting that less chemical pollution is being observed in rivers.
- Rivers are generally monitored for priority substances where there are known discharges of these pollutants. Rivers without discharges of priority substances are reported as being at good chemical status.

Indicator Assessment

	Long term	Short term	Latest year
Proportion of rivers with biological quality classed as good or high			No Change
Proportion of rivers which pass on chemical status			Decreased

Links

Organisation	Subject
Environment Agency	Water Framework Directive
	Chemical Standards Database
Department for Environment, Food and Rural Affairs	England Biodiversity Indicators

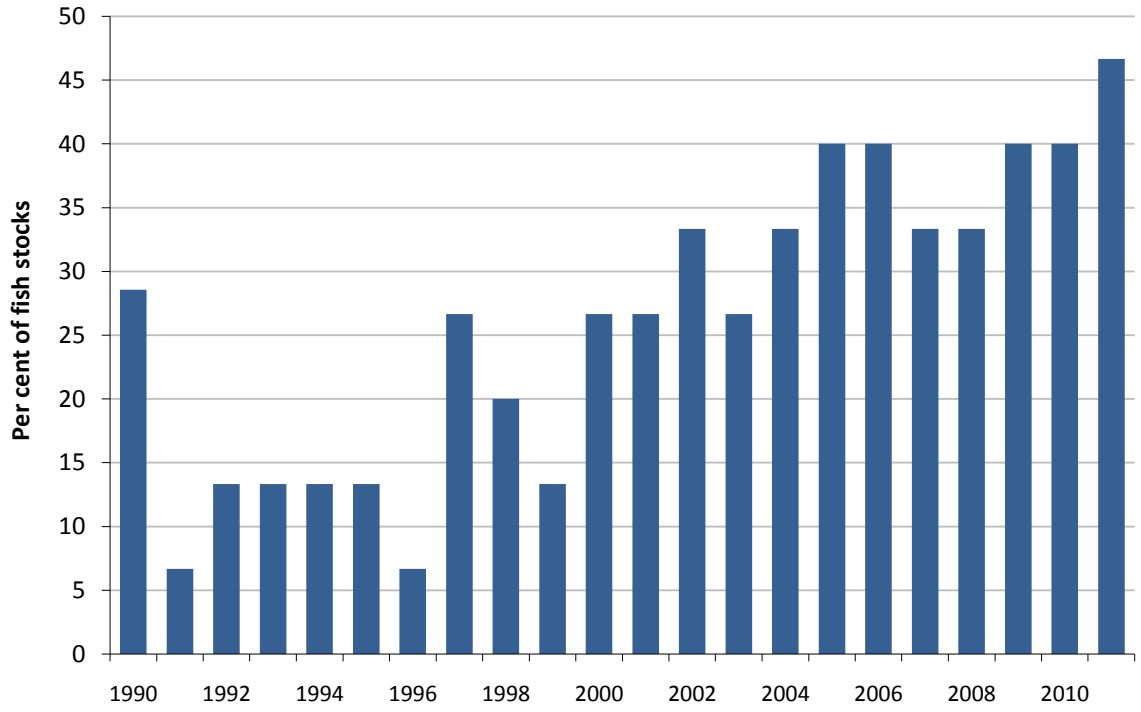
33. Sustainable Fisheries

Green Economy Indicator

Percentage of fish stocks harvested sustainably and at full reproductive capacity

Fish are an integral component of marine biodiversity. They are an important element of the food chain for seabirds, seals and cetaceans and are a very important source of food for people. Sustainable fisheries will help to ensure our marine ecosystems remain diverse and resilient and provide a long-term and viable fishing industry.

Figure 33.1: Percentage of fish stocks harvested sustainably and at full reproductive capacity, UK, 1990 to 2011



Source: International Council for the Exploration of the Sea, Centre for Environment, Fisheries and Aquaculture Science

- Sustainable fisheries will help to ensure our marine ecosystems remain diverse and resilient, and provide a long-term and viable fishing industry.
- In 2011, 47 per cent of the 15 assessed fish stocks around the UK were at full reproductive capacity and were being harvested sustainably. Since 2000, between 27 and 40 per cent of the fish stocks around the UK have been at full reproductive capacity and being harvested sustainably, compared to between seven and 29 per cent in the years from 1990 to 1999.
- ICES advice in 2012 showed that most of the UK indicator stocks considered to be harvested sustainably and at full reproductive capacity in 2011 were also being fished at or below the rate providing long-term maximum sustainable yield (MSY).

Indicator Assessment

	Long term	Short term	Latest year
Percentage of fish stocks harvested sustainably	 (1990)	 (2006)	Increased

Links

Organisation	Subject
Centre for Environment, Fisheries and Aquaculture Science	Sustainable Fisheries Management
International Council for the Exploration of the Sea	Fisheries Statistics
Royal Commission on Environmental Pollution	Turning the Tide: Addressing the Impact of Fisheries on the Marine Environment. (2004) London, the Stationary Office

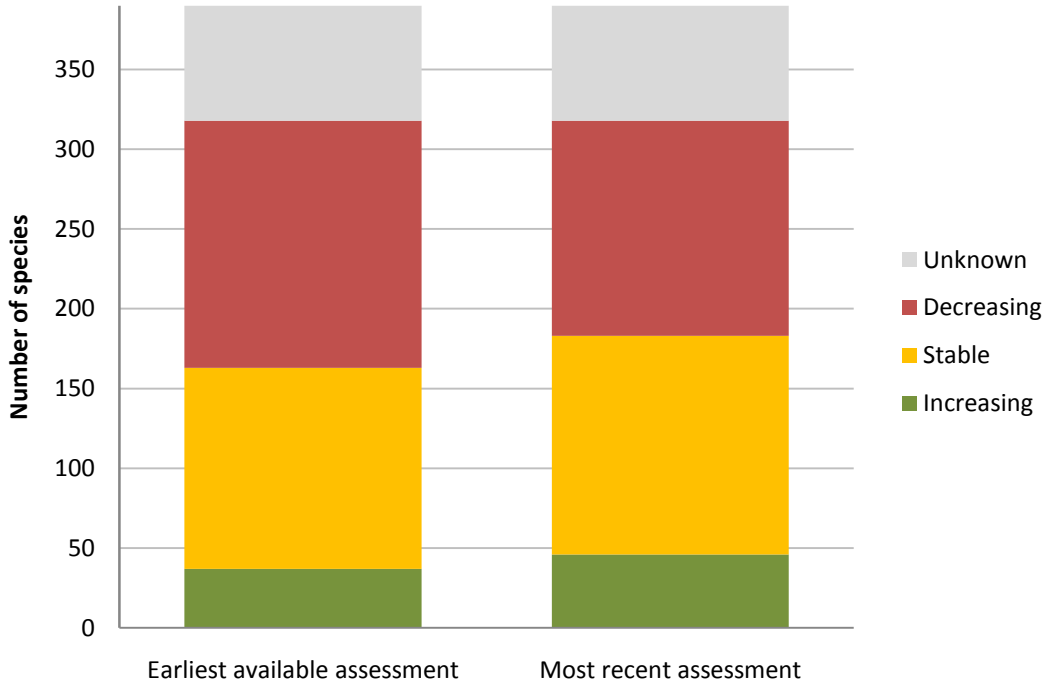
34. Priority Species and Habitats

Green Economy Indicator

Status of priority species

Priority species are a focus for conservation action in England. The indicator shows changes in the status of priority species in England assessed between 2002 and 2008. It is based on the change in the status of 390 species for which a status assessment was available in at least one of the recording years. This is an interim indicator and will be modified in line with the measure in the Biodiversity 2020 indicator set which will be updated in October 2013.

Figure 34.1: Change in the status of priority species, England, 2002 to 2008



Source: UK Biodiversity Partnership, NE, JNCC.

Notes:

1. Priority species presented are those under the UK BAP
2. 'Decreasing' includes species assessed either as declining or lost.
3. Based on 390 priority species or grouped priority species.

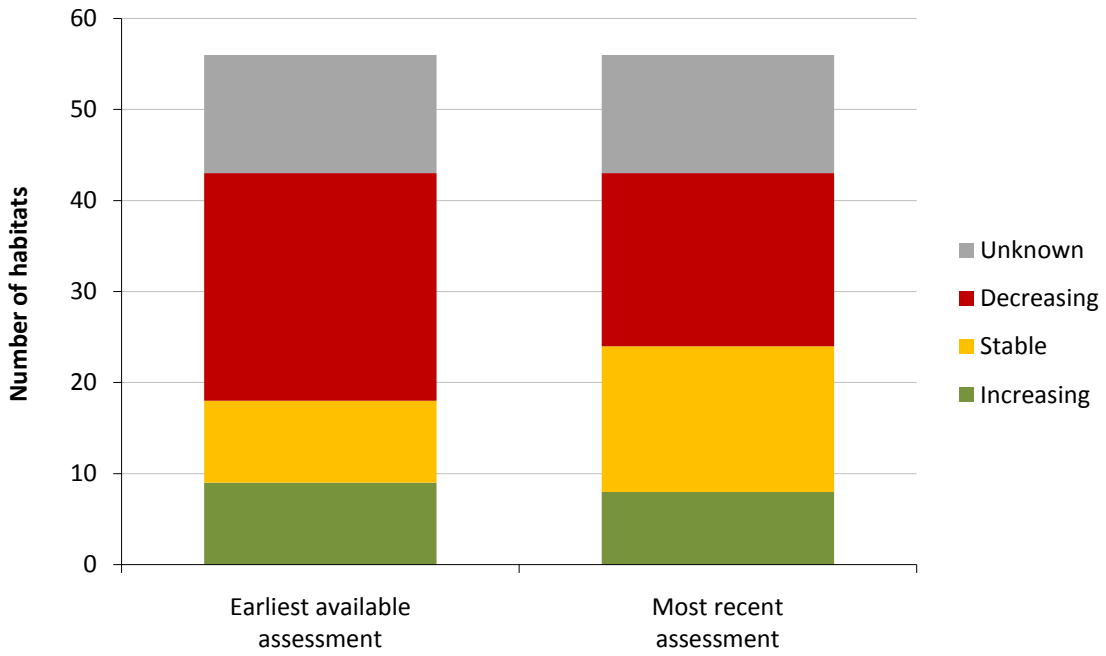
- There are 943 'priority' species of principal importance for the conservation of biological diversity in England under section 41 of the Natural Environment and Rural Communities Act 2006. This list is based on priority species formerly listed in the in the UK Biodiversity Action Plan (UK BAP).
- The indicator assessment is based on the change in the status of 318 (out of a total of 390 species) for which a status assessment was available in at least one of the recording years between 2002 and 2008.

- Of the 318 species, 183 were recorded as stable or increasing in the most recent assessments, compared with 163 in their earliest assessment, representing a 12 per cent increase. Despite this small improvement, in 2008 almost 30 per cent of the UK priority species were still declining in England and a small number had been lost.

Status of priority habitats

Priority habitats are a focus for conservation action in England. The indicator shows changes in the status of priority habitats in England as assessed by Natural England between 2002 and 2010. The indicator assessment is based on the change in the status of 56 habitats for which a status assessment is available in at least one of the recording years. This is an interim indicator and will be updated in line with the measure in the Biodiversity 2020 indicator set.

Figure 34.2: Change in the status of priority habitats, England, 2002 to 2008



Source: UK Biodiversity Partnership, NE, JNCC.

Notes:

1. Priority habitats presented are those under the UK BA
2. Of the known earliest available assessments, 27 were made in 2002, five in 2005, 5 in 2008 and six in 2010.
3. Of the known most recent assessments 27 were made in 2010, 15 in 2008 and one in 2005.
4. Of the 13 unknown, two were assessed and status determined as unknown while 11 have not been assessed.

- Priority habitats are a focus for conservation action in England. There are 56 habitats recognised as of 'principal importance' for the conservation of biological diversity in England under section 41 of the Natural Environment and Rural Communities Act 2006.

- Status information for 43 of the 56 priority habitats was available in at least one of the recording years between 2002 and 2010. Of the 56 priority habitats, 24 were recorded as stable or increasing in the most recent assessment, an improvement on the 18 in their earliest assessment.
- Despite this improvement, in 2010, 19 priority habitats were assessed as still declining in their total area covered.

Indicator Assessment

	Long term	Short term	Latest year
Number of priority species that are stable or increasing		 (2002)	Not assessed
Number of priority habitats that are stable or increasing		 (2002)	Not assessed

Links

Organisation	Subject
Department for Environment, Food and Rural Affairs	England Biodiversity Indicators
UK BARS	UK Biodiversity Action Reporting System

35. UK Biodiversity Impacts Overseas

Green Economy Indicator

Under development

This indicator is under development in line with the UK Biodiversity Indicator publication and is aimed at assessing the impacts of UK production and consumption on global biodiversity.

Background

Production and consumption in the UK has an impact on the natural environment beyond our shores through the range of imports and exports of goods and services. Each of the countries of the UK has introduced or is introducing policies to promote sustainable production and consumption and thereby reduce our impact on biodiversity and promote sustainable use of natural resources.

The UK is heavily reliant on imported goods and services to satisfy demand. This growing demand, combined with recent and continued liberalisation of global trade, has resulted in a complex network of supply chains that cause pressure on biodiversity and ecosystems (beyond the UK's borders). This pressure has potential international biodiversity impacts.

Progress

Work has been undertaken to assess how patterns of consumption impact on the key drivers of biodiversity change overseas and identify options for mitigating our impact. Research was commissioned to:

- Analyse trade pathways and supply chains for goods and services to identify important sources of production; and
- Identify the potential impact of key production systems and products on biodiversity.

A report of the research undertaken is due to be published later in 2013, and further work to convert the findings into an indicator will then need to be undertaken. An update will be provided in the next publication of the indicators.

Links

Organisation	Subject
Joint Nature Conservation Committee	UK Biodiversity Indicators

Acronyms

AEI	Average Earnings Index
AWE	Average Weekly Earnings
BAP	Biodiversity Action Plan
BIS	Department for Business Innovation and Skills
BTO	British Trust for Ornithology
C&D	Construction and Demolition
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CEH	Centre for Ecology and Hydrology
CIEH	Chartered Institute for Environmental Health
DAQI	Daily Air Quality Index
DCLG	Department for Communities and Local Government
DECC	Department of Energy and Climate Change
Defra	Department for the Environment, Food and Rural Affairs
DoH	Department of Health
DWP	Department for Work and Pensions
EA	Environment Agency
ENEI	England Natural Environment Indicators
EU	European Union
FC	Forestry Commission
GDP	Gross Domestic Product
HBAI	Households Below Average Income
HLE	Healthy Life Expectancy
ICES	International Council for the Exploration of the Sea
ILO	International Labour Organisation
JNCC	Joint Nature Conservation Committee
LE	Life Expectancy
NE	Natural England
NEWP	Natural Environment White Paper
NS-SEC	National Statistics Socio Economic Classification
NWB	National Well-Being
OBR	Office for Budget Responsibility
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics

OS	Ordinance Survey
PSND	Public Sector Net Debt
PSNB	Public Sector Net Borrowing
PHOF	Public Health Framework
R&D	Research and Development
RMC	Raw Material Consumption
RPI	Retail Price Index
RSPB	Royal Society for the Protection of Birds
SAP	Standard Assessment Procedure
SDI	Sustainable Development Indicators
UK BAP	United Kingdom Biodiversity Action Plan
WWT	Wildfowl and Wetlands Trust