

CHAPTER 3

Headline indicators; assessing the implications for sustainable development

SUMMARY

- On average, the UK economy grew (after taking account of inflation) by 2.2 per cent per year between 1970 and 1998.
- Levels of investment as a proportion of GDP fell over the same period.
- In 1999, about three-quarters of people of working age were in work, but there are still too many unable to find work.
- Poverty and social exclusion increased sharply during the 1970s and 1980s, but have been broadly constant since the early 1990s.
- There has been a steady improvement in the proportion of young people gaining formal educational qualifications.
- Average life expectancy had by the mid-1990s increased to 74 years for men and 79 for women. However, healthy life expectancy had not increased as fast as total life expectancy, so by 1995 men could expect to spend 8 years and women 11 years in poor health.
- The proportion of homes judged unfit to live in decreased from 8.8 per cent in 1986 to 7.2 per cent in 1996.
- Recorded crime rates increased substantially over the period 1970–1998/99, although vehicle crime and burglaries have fallen since 1993.
- UK emissions of greenhouse gases have declined and in 1997 were 9 per cent below the 1990 level. However, emissions are expected to start rising again after 2005. In the longer term, much more significant reductions will be needed in the UK and globally to tackle the threat of climate change.
- Urban air quality generally improved between 1993 and 1998.
- Motor vehicle traffic in 1998 was more than eight times higher than that in 1950.
- In general, chemical and biological river quality improved over the period 1990–1998.
- Populations of farmland and woodland birds generally declined from the mid-1970s to 1998.

- The percentage of homes built on previously developed land increased slightly since 1989 to about 55 per cent of all new homes in 1996.
- It is estimated that between 170 and 210 million tonnes of waste were produced in the UK in 1997/98. The volumes of household waste increased between 1983 and 1997.

INTRODUCTION

3.1 An important new element in the development of the national indicators of sustainable development is a subset of key headline indicators. These are intended to focus attention on what sustainable development means, and to give a broad overview of whether we are achieving a ‘better quality of life for everyone, now and for generations to come’.

3.2 In his introduction to the sustainable development strategy, the Prime Minister said:

“In our own lives, we know the value of money. We know it can bring comfort, security, and new opportunities. But we also know that money isn’t everything. Feeling safe on our streets or in our homes. Enjoying our rich and diverse countryside. Knowing that a modern and dependable NHS is there when you need it. Living in strong communities. These all matter too.

But in the past governments have seemed to forget this. Success has been measured by economic growth – GDP – alone. We have failed to see how our economy, our environment and our society are all one. And that delivering the best possible quality of life for us all means more than concentrating solely on economic growth.

Talking about sustainable development is not enough. We have to know what it is, to see how our policies are working on the ground. We must hold ourselves to account – as a government, but also as a country. All this depends on devising new ways of assessing how we are doing. The indicators set out in this White Paper do this. They set traditional measures such as GDP and employment alongside innovations such as measuring the number of birds, or how healthy we are, or the fear of crime.”

3.3 The headline indicators are listed in table 3.1 together with the objectives and issues they cover. In addition to those published in the sustainable development strategy, the government has included a further headline indicator, which covers tackling poverty and social exclusion. For the future, the government is considering extending the headline indicators to include a measure based on surveys of how satisfied people are with their overall quality of life. The current headline indicators are described and illustrated in more detail in the rest of this chapter.

ANALYSIS

3.4 The 15 headline indicators are intended to make up a ‘quality of life barometer’, which will be used to measure overall progress. The Strategy stated that:

“the Government’s aim is for all the headline indicators to move in the right direction over time, or, where a satisfactory level has been reached, to prevent a reversal. Where a trend is unacceptable, the Government will adjust policies accordingly, and will look to others to join it in taking action.”

- 3.5 The government proposes to bring together and publish the latest information about progress against each of the headline indicators once a year. It will account for the action it has taken, and proposes to take, in priority areas. It is not the purpose of this report to preempt the assessment of policies and priorities. This report provides a benchmark, setting out the available data and indicators. It will help Ministers to determine whether policies currently in place are likely to be sufficient to tackle those areas where trends are adverse or current levels are unsatisfactory. The data relate in the most part to 1998 and before, prior to publication of *A better quality of life*. In many cases there will be a time lag between the start of new policies and their impact becoming evident in these indicators, which generally reflect longer-term outcomes. The key policies and commitments in each area were set out in the sustainable development strategy, and are referred to briefly in the description of each indicator.
- 3.6 In future, decisions on policies and priorities will benefit from an objective analysis of the recent trends and current position for each headline indicator. The assessment needs to look at both whether the headline indicators are moving “in the right direction over time” and whether “a satisfactory level has been reached”.
- 3.7 Whether an indicator has *moved in the right direction* may depend on the baseline. For example, there was a generally increasing trend in the recorded rate of domestic burglaries between 1970 and 1993, but the rate has declined since 1993, though 1998/99 rates remain just above the 1989 level. We have taken two baselines, 1970 and 1990, to reflect broadly the long and short term. Generally, the trend has been similar over both time periods, showing that the analysis is fairly robust to the choice of baseline. In a few cases however, the more recent trend has differed from the longer-term trend. Results are shown in table 3.2 and illustrated in figure 3.1.
- 3.8 Whether a *satisfactory level has been reached* requires a more subjective judgement. As discussed in chapter 2, there are some areas where sustainability reference values (SRVs) exist. Only one headline indicator – air quality – has an SRV for the UK (although current national air quality objectives for individual pollutants allow exceedences of some of the standards for individual pollutants). Air quality standards are based on human health criteria. There is no specific SRV for the UK in respect of climate change. Assessment of progress on the headline indicator reflects target figures for 2010; it does not, however, reflect the level of emission reductions which will be needed in the longer term to combat climate change. As far as the other headline indicators are concerned, judgement about whether a satisfactory level has been reached can only be subjective. But where the government has set a target for improvement, this implies that it does not regard the current level as satisfactory. Table 3.2 shows where targets or goals for improvement have been set.
- 3.9 Key messages from the headline indicators are given in the summary at the beginning of this chapter. This analysis summarises individual indicators, but we also need to assess the overall implications of the set taken together, recognising the links between them. This is discussed further in chapter 5.

Table 3.1 The headline indicators in the UK sustainable development strategy

Themes, issues and objectives (strategy reference)	Ref no.	Headline indicators
Maintaining high and stable levels of economic growth and employment		
• our economy must continue to grow (3.12)	H1	total output of the economy (GDP and GDP per head)
• investment (in modern plant and machinery as well as research and development) is vital to our future prosperity (3.14)	H2	total and social investment as a percentage of GDP
• maintain high and stable levels of employment so everyone can share greater job opportunities (Box after 1.8)	H3	proportion of people of working age who are in work
Social progress which recognises the needs of everyone		
• tackling poverty and social exclusion (7.17)	H4	indicators of success in tackling poverty and social exclusion (children in low income households, adults without qualifications and in workless households, elderly in fuel poverty)
• equip people with the skills to fulfil their potential (3.16)	H5	qualifications at age 19
• improve health of the population overall (3.17)	H6	expected years of healthy life
• reduce the proportion of unfit (housing) stock (3.18)	H7	homes judged unfit to live in
• reduce both crime and people's fear of crime (3.19)	H8	level of crime
Effective protection of the environment		
• continue to reduce our emissions of greenhouse gases now, and plan for greater reductions in longer term (3.20)	H9	emissions of greenhouse gases
• reduce air pollution and ensure air quality continues to improve through the longer term (3.21)	H10	days when air pollution is moderate or higher
• improve choice in transport; improve access to education, jobs leisure and services; and reduce the need to travel (7.29)	H11	road traffic
• improving river quality (8.30)	H12	rivers of good or fair quality
• reverse the long-term decline in populations of farmland and woodland birds (3.24)	H13	populations of wild birds
• re-using previously developed land, in order to protect the countryside and encourage urban regeneration (3.25)	H14	new homes built on previously developed land
Prudent use of natural resources		
• move away from disposal of waste towards waste minimisation, reuse, recycling and recovery (Box after 6.11)	H15	waste arisings and management

Table 3.2 Headline indicators – a baseline assessment

Indicator	Ref no	Data used	Change 1970-1998 ¹	Change 1990-1998 ¹	Specific targets and goals
Economic output (GDP)	H1	1970-1998	74 per cent real growth per head	14 per cent real growth per head	
Investment (as % of GDP)	H2	1970-1998	2 percentage point fall	3 percentage point fall	
Employment	H3	1970-1999	1 percentage point increase	1 percentage point fall	An increase in the proportion of working age people in employment, over the economic cycle, in the UK
Poverty and social exclusion	H4	1990-1999	poverty and social exclusion increased in the 1970s and 1980s	little change	Indicators of success in tackling poverty and social exclusion in the anti-poverty strategy
Education (qualification at age 19)	H5	1984-1999	•••	increase of 22 percentage points	85 per cent of 19 year olds in England to have a 'level 2' qualification by 2002; 75 per cent in Wales by 2002 and 85 per cent in Northern Ireland by 2001
Health (expected years of healthy life)	H6	1981-1995	increase of 2 years 1981 to 1995	little change	An increase in healthy life expectancy at age 65, in England
Housing (% of homes unfit)	H7	1986-1996	•••	0.4 percentage points fall	
Crime vehicle burglary violent	H8	1970-1998/99	210% increase 131% increase 333% increase	fall of 18% fall of 13% increase of 29%	30% reduction by March 2004 in England and Wales Reduce growth relative to its long-run rate in England and Wales
Climate change greenhouse gases carbon dioxide	H9	1990-1997 1970-1998	••• fall of 19%	fall of 9% fall of 7%	12.5% reduction 1990 to 2008/2012 for UK Goal: 20% reduction 1990 to 2010 for UK
Air quality urban rural	H10	1993-1998 1987-1998	••• •••	fall of 58% no trend	National air quality objectives for individual pollutants, by 2005 for UK
Road traffic	H11	1950-1998	increase of 129%	increase of 12%	Reduce rate of growth, with an absolute reduction where environmental damage is greatest. Commission for Integrated Transport has remit to advise on setting a target for England
River water quality	H12	1990-1998	•••	2% increase chemical quality	At least half of river quality objectives (RQO) shortfall to be eliminated by 2005 in England and Wales
Wildlife (bird population) all species woodland farmland	H13	1970-1998	increase of 5% decline of 10% decline of 36%	decline of 5% decline of 12% decline of 18%	Reverse the long-term decline in populations of woodland and farmland birds
Land use (% homes on previously developed land)	H14	1989-1997	•••	increase of 2 percentage points	60% by 2008 in England
Waste (arising and management) household other	H15	1983/84 – 1997/98 1998	••• •••	14% increase since 1991 •••	Range of targets in draft waste strategies for England and Wales, Scotland and Northern Ireland

1 For some indicators, latest available data differs from 1998 – see 'Data' used column. ••• means no or insufficient data available

Figure 3.1 Headline indicators – a baseline assessment

	Change 1970-1998 ¹	Change 1990-1998 ¹
Economic output	●	●
Investment	●	●
Employment	●	●
Poverty	●	●
Education	...	●
Health	●	●
Housing	...	●
Crime		
Violent	●	●
Vehicle, burglary	●	●
Climate change ²	●	●
Air quality	...	●
Road traffic	●	●
River water quality	●	●
Wildlife Farmland birds	●	●
Land use	...	●
Waste		
Household	...	●
Other

Key:	
significant change, in direction of meeting objective	●
no significant change	●
significant change, in direction away from meeting objective	●
insufficient or no comparable data	...

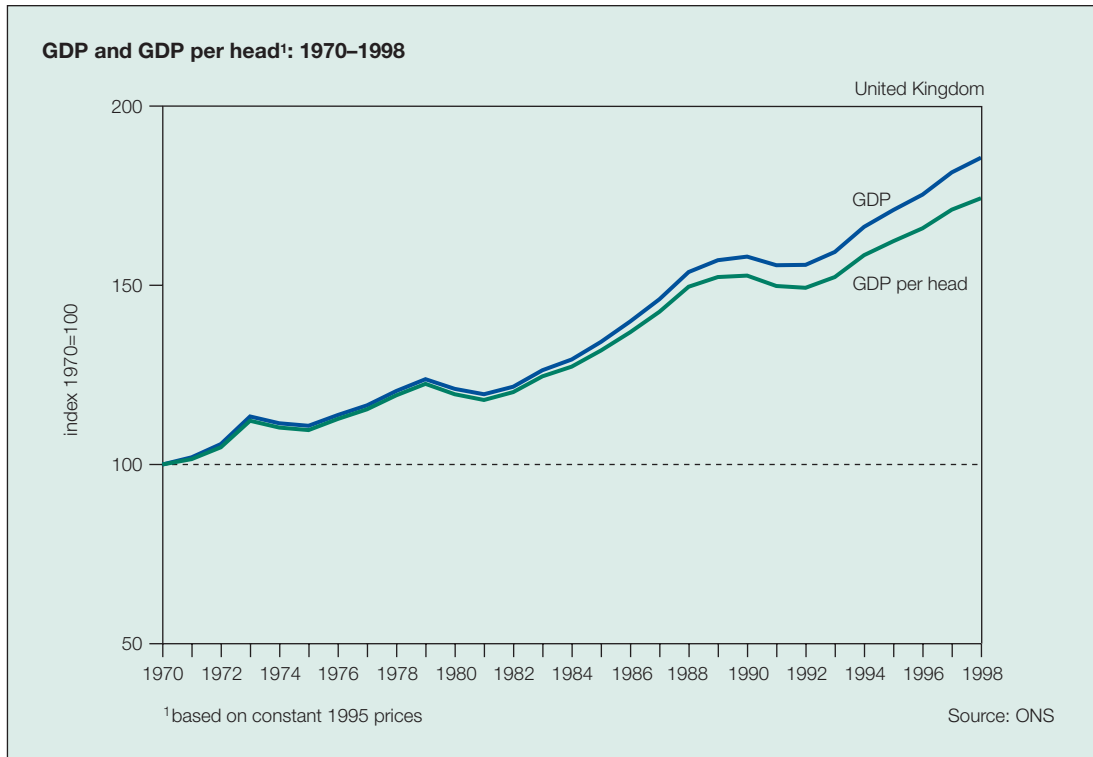
1 For some indicators, latest available data differs from 1998. For most recent data used see Table 3.2.

2 The objective for this purpose is UK greenhouse gas emission targets for 2010

Objective Our economy must continue to grow

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

H1

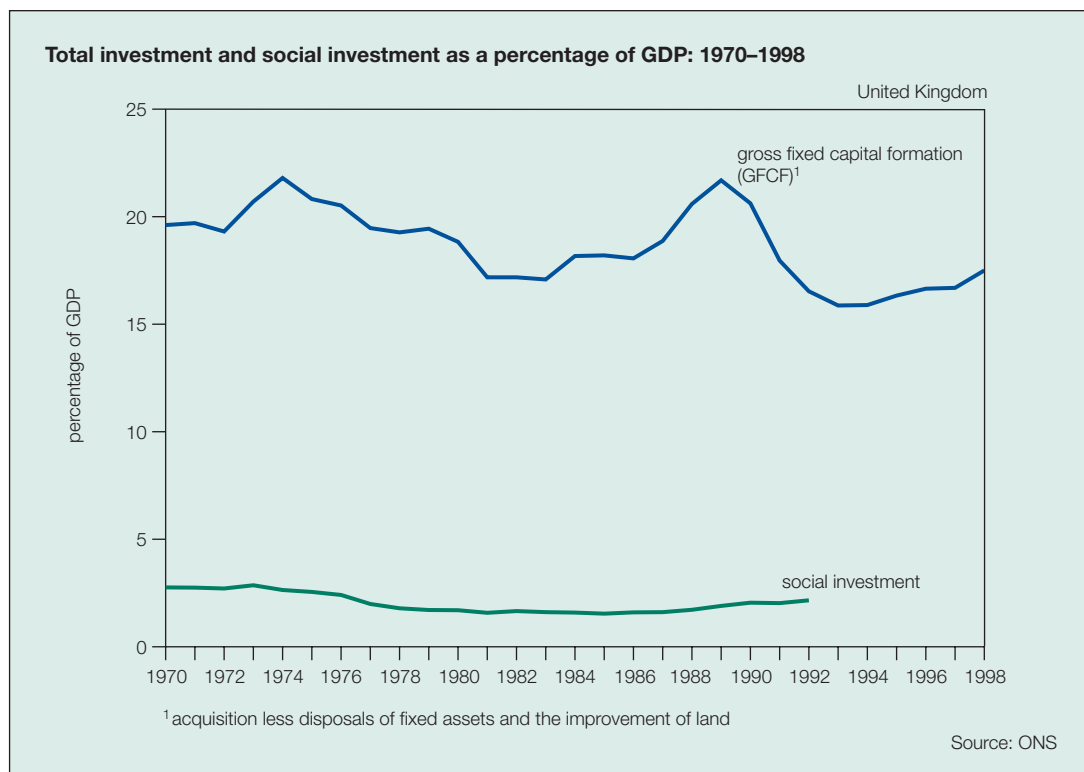


Between 1970 and 1998 the output of the economy has grown by 86 per cent in real terms, around 2.2 per cent per year on average.

- Relevance** Maintaining high and stable levels of economic growth is one of the key objectives of sustainable development. A healthy economy leads to higher living standards and greater prosperity for individuals. It also helps businesses to be profitable, which generates employment and income.
- Trends** Between 1970 and 1998 output has increased overall by 86 per cent in real terms (that is after taking account of inflation). There have been three major recessions during this period. Output per person has grown at a slightly lower rate, by 74 per cent, reflecting the fact that the population has also increased.
- Background** It's not just the quantity of growth that is important, but also the quality. In the past, economic growth has meant growth in the use of resources and demand for services, including transport. To achieve sustainable development in the long term, new ways are needed to ensure that economic growth goes hand in hand with the efficient use of resources, while limiting pollution and waste.
- Strategy** *A better quality of life:* A strategy for sustainable development for the UK (6.14-6.21)

Objective Investment (in modern plant and machinery as well as research and development) is vital to our future prosperity

Indicator Total and social investment as a percentage of GDP H2



The UK has invested too little in buildings, modern plant and machinery. Total investment declined as a percentage of GDP over the period 1970 to 1998.

Relevance Investment is vital for a healthy economy, and to ensure that we are competitive in international markets. Investment in social assets such as railways, buses, hospitals, schools, water and sewerage is important for providing high quality public services that benefit everyone.

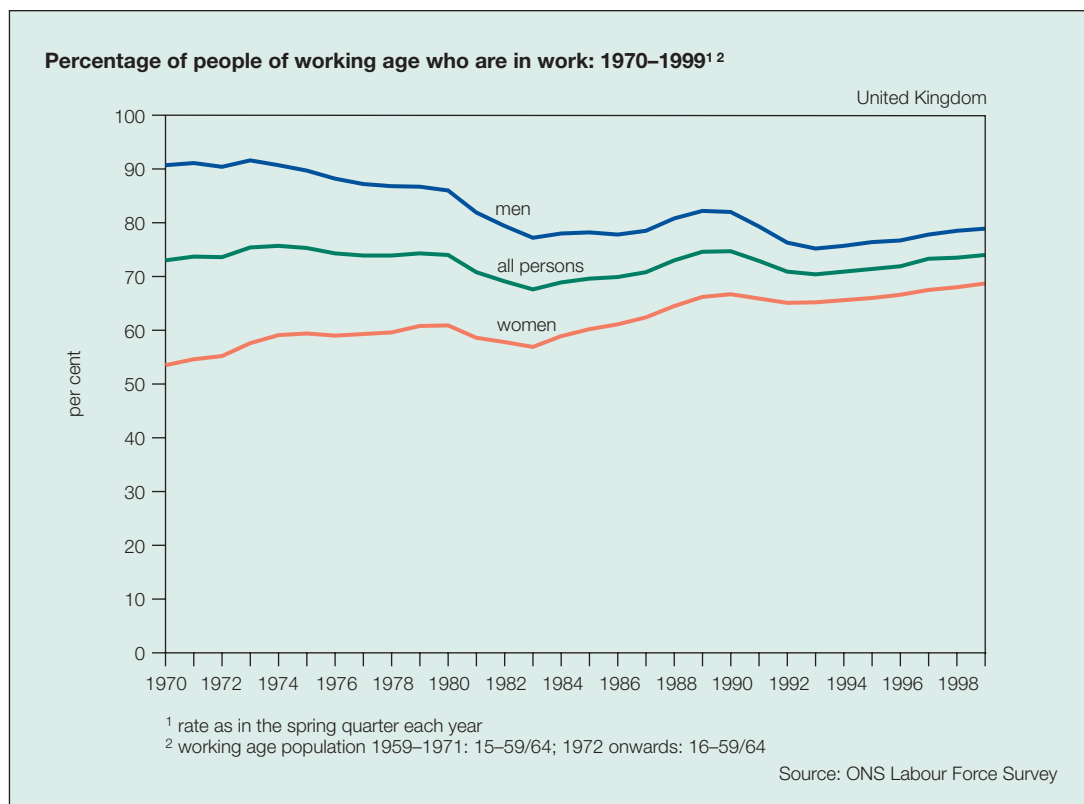
Trends There has been a general decline both in total investment relative to GDP over the period 1970 to 1998, and in social investment over the period 1970 to 1992, but with cyclical variations reflecting the economic cycle. Total investment declined from 20 per cent of GDP in 1970 to 17 per cent in 1998.

Background Over the most recent international economic cycles 1973-79, 1979-89 and 1989-96 UK business has consistently invested less per worker than most other G7 countries. Since 1979, the UK has had the lowest level of government investment per head in G7 countries. Public sector net investment spending is planned to double in the UK over the life of the current Parliament.

Strategy *A better quality of life:* A strategy for sustainable development for the UK (6.14-6.21)

Objective Maintain high and stable levels of employment so everyone can share greater job opportunities

Indicator Proportion of people of working age who are in work **H3**



In May-July 1999 the employment rate was 74 per cent of those of working age. Of those not in employment many are not looking for work but there are still too many who are unable to find work, particularly people in workless households and the long-term unemployed.

Relevance A high employment rate is one of the key objectives of sustainable development. Employment enables people to meet their needs and improve their living standards and is the single most effective and sustainable way to tackle poverty and social exclusion for those who can work. Improving employment opportunities will increase the productive potential of the economy, leading to benefits for society as a whole.

Targets and goals An increase in the proportion of working age people in employment, over the economic cycle, in the UK.

Trends The percentage of the working age population who are in work has remained relatively steady since 1970. For women there has been an increase from 56 per cent in 1970 to 69 per cent in 1999, whilst for men there has been a decline from 91 per cent in 1970 to 78 per cent in 1999.

Background Many people of working age are not looking for paid work, such as carers, or mothers of young children. However, there are many who want work but are unable to find it. Around one in six households contains at least one person of working age but no-one in work, and the latest Labour Force Survey estimates that there are over 515,000 people currently looking for work who last worked more than two years ago.

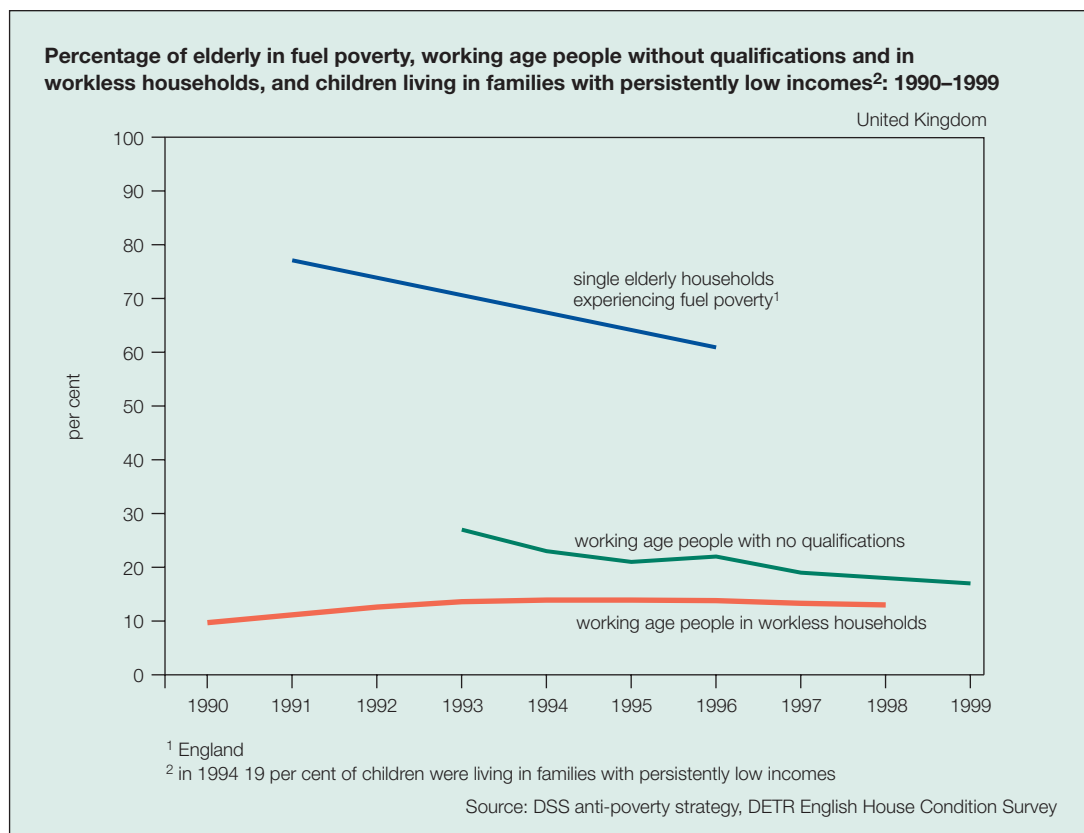
Strategy *A better quality of life: A strategy for sustainable development for the UK (6.22-6.37)*

Welfare to Work and New Deals targets

Objective Tackle poverty and social exclusion

Indicator Indicators of success in tackling poverty and social exclusion

H4



The benefits of economic growth have not been shared by everyone. In 1999, 17 per cent of working age people had no qualifications, and in 1998, 13 per cent lived in workless households; in 1994, 19 per cent of children lived in households with persistently low incomes; in 1996, over half of single over 60s in England experienced fuel poverty. Taken as a group, these key indicators show little change between 1990 and 1999.

Relevance Sustainable development is about ensuring a better quality of life for everyone, not just a privileged few. To achieve sustainability we must tackle poverty and social exclusion and these indicators capture some key aspects.

Targets and goals A reduction in the proportion of elderly households experiencing fuel poverty, and a reduction in the proportion of working age people with no qualifications, in England; a reduction in the proportion of working age people living in workless households for households of a given size, over the economic cycle, and a reduction in the proportion of children in households with persistently low incomes, in the UK.

Trends Overall these key indicators do not show much change between 1990 and 1999. For the separate age groups key points to note are:

Children: In 1994 in the UK, 19 per cent of children were living in families with persistently low incomes, defined as below 60 per cent of the median in at least 3 of the 4 years between 1991 and 1994.

There are no continuous data on persistent low incomes prior to 1991 but snapshot estimates show that the proportion of children living in households with relatively low incomes (below 60 per cent of contemporary median income) more than doubled between the late 1970s and the early 1990s. The proportion of children living in households with low incomes in absolute terms remained broadly constant despite a substantial increase in average living standards.

Working age: The proportion of adults in working age workless households in the UK rose from 10 per cent to peak at just under 14 per cent in 1995. Since then the proportion of adults in workless households has fallen to around 13 per cent. Longer time series from different data sources indicate that the proportion increased from 7 per cent in 1979 to 11 per cent in 1990 – the main causes have been a fall in employment rates across all types of households and an increase in the proportion of single adult households.

Older people: Fuel poverty has declined mainly through a combination of improvements in the general economy, a fall in fuel prices, and higher income benefits. But substantial numbers of over 60s in England still have problems keeping their homes warm. (See also indicator J6).

Background These indicators form part of a suite of indicators developed for the government's strategy to tackle poverty and social exclusion. They are multi-faceted concepts, and these indicators together with other headline indicators on employment, education and housing quality capture some key aspects. Issues are also discussed further in chapter 5.

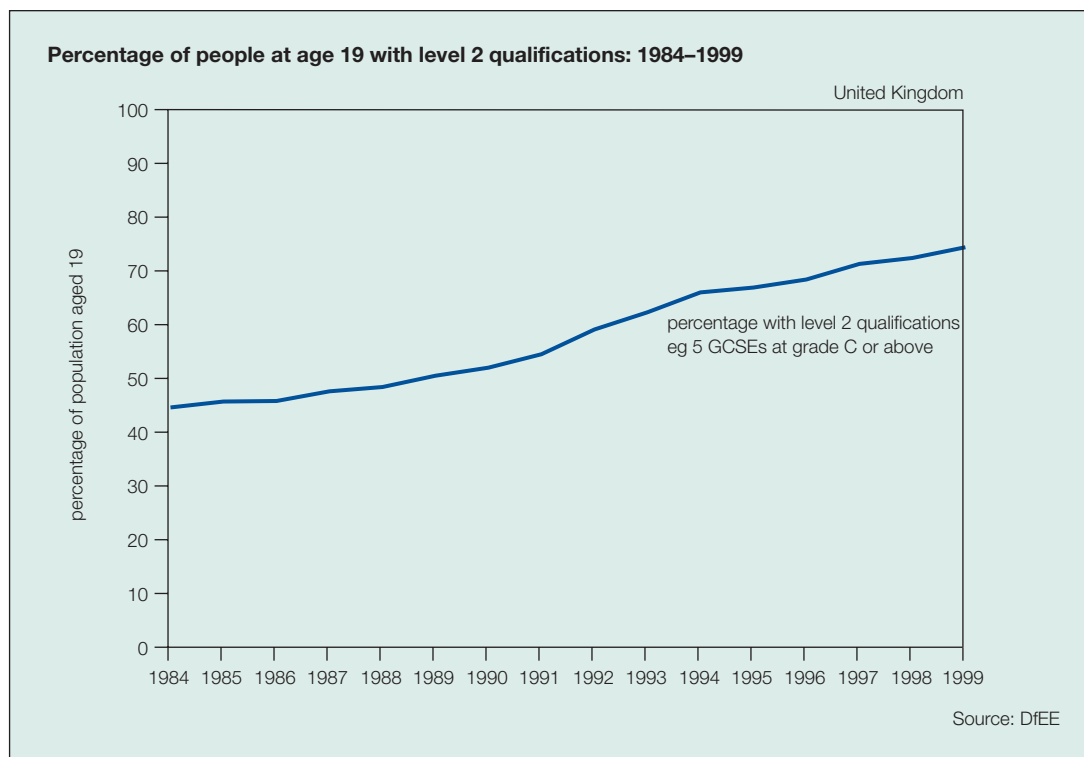
Strategy *A better quality of life:* A strategy for sustainable development for the UK (7.13-7.18)

Opportunities for all: Tackling poverty and social exclusion

Objective Equip people with the skills to fulfil their potential

Indicator Qualifications at age 19

H5



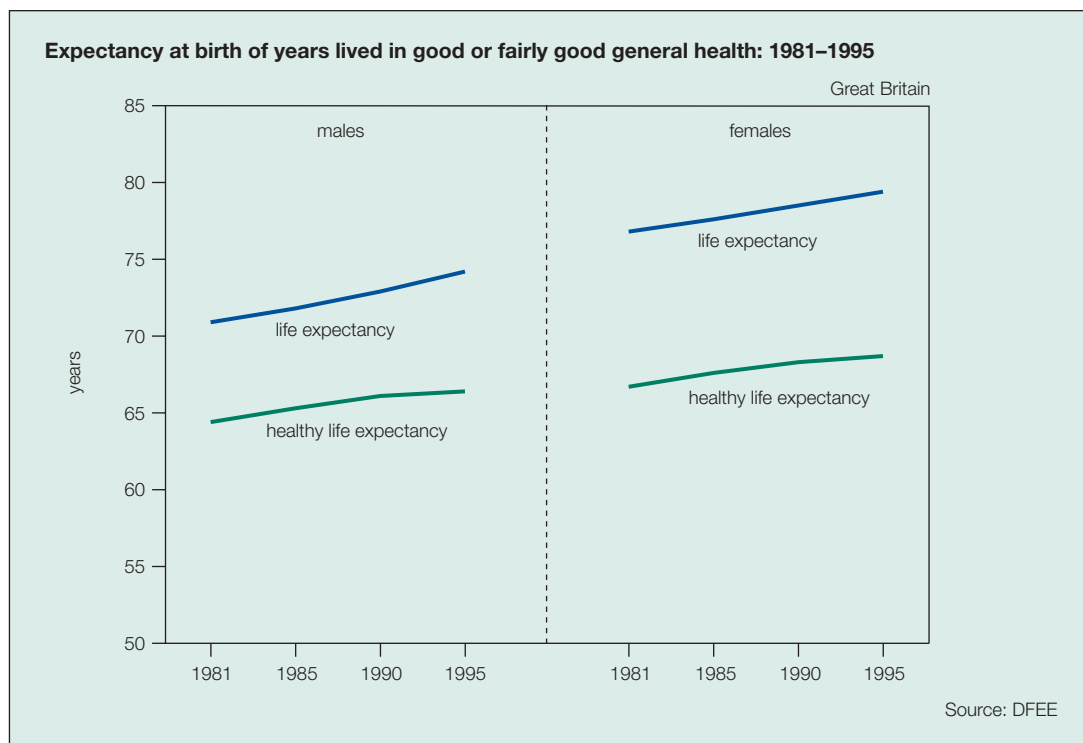
There has been a steady improvement in the proportion of young people gaining formal educational qualifications. In 1999, 74 per cent of 19 year olds in the UK had achieved qualifications to NVQ level 2 or equivalent (eg five GCSEs at grades C or above).

<i>Relevance</i>	To achieve stable and sustainable growth, we need a well-educated, well-equipped and adaptable labour force. Learning also has a wider contribution to make – it promotes active citizenship and helps to combat social exclusion. It opens up opportunities for people and gives them the chance to make a full contribution to the community.
<i>Targets and goals</i>	Government has set new National Learning Targets, including targets for the proportion of 19 year olds achieving a ‘level 2’ qualification – 85 per cent in England by 2002, 75 per cent in Wales by 2002, and 85 per cent in Northern Ireland by 2001. (Revised targets for Scotland are to be considered.)
<i>Trends</i>	The proportion of 19 year olds gaining level 2 qualifications in the UK has risen from 45 per cent in 1984 to 74 per cent in 1999.
<i>Background</i>	Educational standards must be raised at all levels and the widening gap between high and low achievers must be closed.
<i>Strategy</i>	<i>A better quality of life:</i> A strategy for sustainable development for the UK (6.22-6.30) <i>The learning age:</i> A renaissance for a new Britain

Objective Improve health of the population overall

Indicator Expected years of healthy life

H6



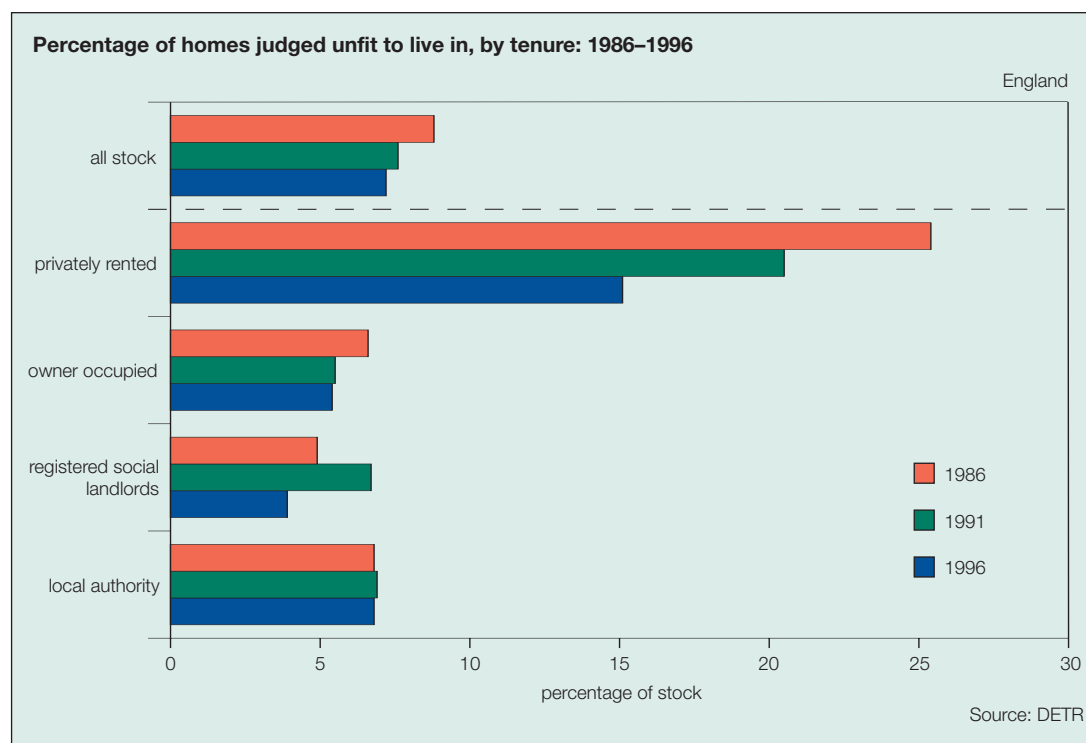
Average life expectancy had increased by the mid 1990s to 74 years for men and 79 years for women in GB. However, more years were being spent in poor health.

- Relevance** Improving people’s health and especially the health of the worst-off in society is a key sustainability objective.
- Targets and goals** An increase in healthy life expectancy at age 65, in England.
- Trends** Both life expectancy, and healthy life expectancy based on self-rated health, increased over the period 1981 to 1995, for men and for women. However, healthy life expectancy has not increased as fast as total life expectancy so that by 1995 men could expect to spend 8 years and women 11 years of their lives in poor health.
- Background** Men and women in unskilled occupations generally have lower total life expectancy than those in professional occupations (see indicator F3).
Healthy life expectancy in GB has often been calculated by combining life expectancy with information about limiting longstanding illness. The healthy life expectancy indicator is based on people’s assessment of their own general health, which correlates with other separate measures of health and is a good predictor of mortality.
The information is presented in terms of three year moving averages – the plots on the chart represent the middle year.
- Strategy** *A better quality of life:* A strategy for sustainable development for the UK (7.19-7.25)
Our healthier nation: A contract for health

Objective Reduce the proportion of unfit housing stock

Indicator Homes judged unfit to live in

H7



The percentage of homes judged unfit to live in decreased from 8.8 per cent in 1986 (in England) to 7.2 per cent (about 1.5 million homes) in 1996. There have also been improvements in the quality of the housing stock in Scotland, Wales and Northern Ireland.

Relevance Housing is a key component of a decent quality of life – poor quality housing causes harm to health, and is often associated with other social problems.

Trends In England the condition of the housing stock improved between 1986 and 1991, with no significant change in the following five years. The improvement was greatest in the private rented sector, although in 1996 that sector still had the highest proportion of unfit stock (15 per cent). Because of its size, the owner-occupied sector contains the largest number of unfit homes. In Northern Ireland it is estimated that, had the current fitness standard been applied throughout, the proportion of unfit stock would have decreased from 11 per cent in 1987 to 7.3 per cent in 1996. In Wales the proportion of occupied homes that were unfit decreased from an estimated 19.5 per cent in 1986 to 8.5 per cent in 1998.

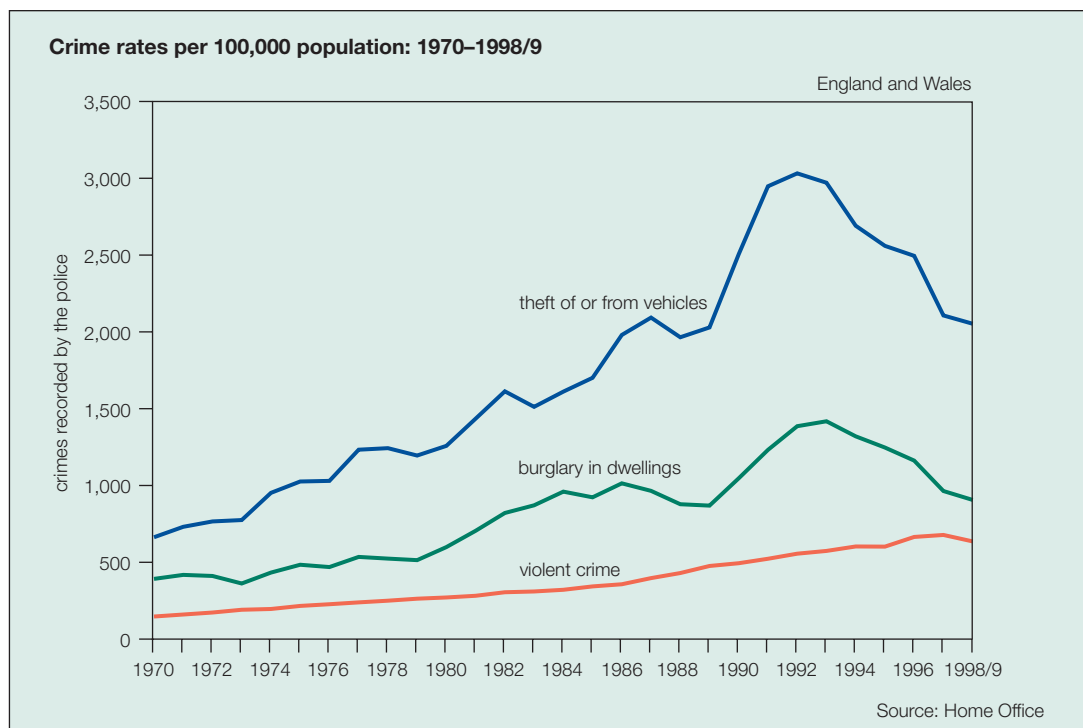
Background National estimates of the extent to which homes are judged unfit to live in are measured at approximately five-year intervals through national house condition surveys against the current fitness standard. This standard is currently under review and a revised fitness rating may be introduced in the future. The figures given in the chart are for England; but broadly comparable surveys are carried out across the UK. However, there is a different definition of housing quality in Scotland, and some of the other national surveys have been carried out in different years and with different frequencies. In England, a quarter of unemployed people, and nearly one in five lone parents live in “poor housing” (that is unfit, in substantial disrepair or in need of essential modernisation).

Strategy *A better quality of life: A strategy for sustainable development for the UK (7.43-7.53)*

Objective Reduce both crime and fear of crime

Indicator Level of crime

H8



The level of recorded crime increased substantially over the period 1970-1998/99. Recorded levels of burglary in dwellings and theft of or from motor vehicles declined more recently since 1993 in England and Wales, but violent crime continued to rise over most of this period.

Relevance Everyone has a right to live in a community that is safe. Crime imposes economic costs, reinforces social exclusion and can hasten the environmental decline of neighbourhoods. It can make people reluctant to walk or take public transport or go out after dark. Much acquisitive crime, such as shoplifting and burglary, is committed by drug-misusing offenders to feed their habits.

Targets and goals The government is committed to achieving a reduction in the long run rate in the growth of crime in England and Wales. It has set a specific target of a 30 per cent reduction in vehicle crime over the next 5 years in England and Wales.

Trends Despite recent declines, in 1998/99 the recorded level of burglary and car crime combined was almost three times 1970 levels. The recorded level of violent crime is over four times higher.

Background Dealing with social exclusion and environmental decline will help tackle the causes of crime. Coupled with this are measures to strengthen families and cut drug misuse.

Changes in the coverage and counting of recorded offences by police forces in England and Wales from the beginning of 1998/99 will mean the basis for future figures for violent crime will change. However, the 1998/99 figures illustrated in the chart are on a comparable basis to those for earlier years.

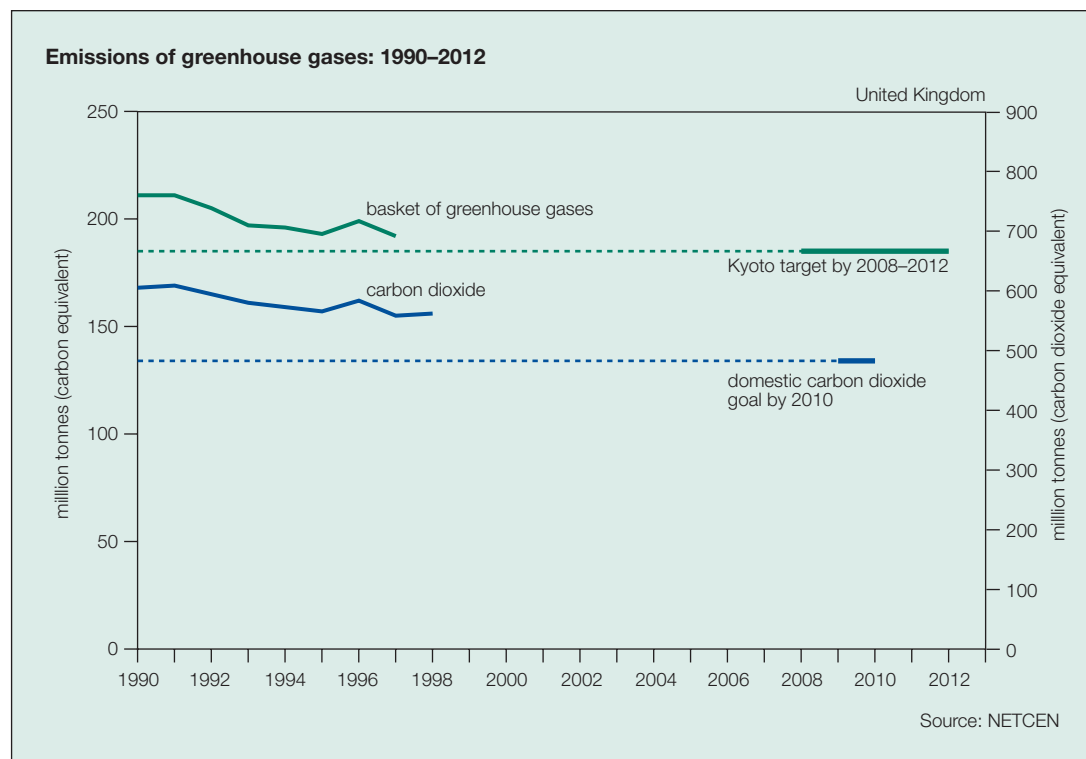
Strategy *A better quality of life: A strategy for sustainable development for the UK (7.74-7.76)*

Crime and Disorder Act 1998, in England and Wales.

Objective Continue to reduce our emissions of greenhouse gases now, and plan for greater reductions in the longer term

Indicator Emissions of greenhouse gases

H9



UK emissions of the ‘basket’ of six greenhouse gases, weighted by global warming potential, fell by 9 per cent between 1990 and 1997.

Emissions of carbon dioxide, the main greenhouse gas, fell by 7 per cent between 1990 and 1998.

Relevance Climate change is recognised as one of the greatest environmental threats facing the world today. All countries party to the Climate Change Convention have acknowledged the need to reduce greenhouse gases, which are causing global warming. Developed countries have agreed legally binding targets to reduce their emissions.

Targets and goals Under the Kyoto Protocol, the UK has a legally binding target to reduce emissions of the basket of six greenhouse gases by 12.5 per cent relative to the 1990 level over the period 2008-2012. It also has a domestic goal to cut CO₂ emissions by 20 per cent below 1990 levels by 2010.

Trends Carbon dioxide emissions fell in the first half of the 1990s mainly because of a switch from coal to gas and nuclear power for electricity generation. They are, however, expected to start increasing again after 2005. In the longer term, much more significant reductions will be needed in the UK and globally to tackle the threat of climate change.

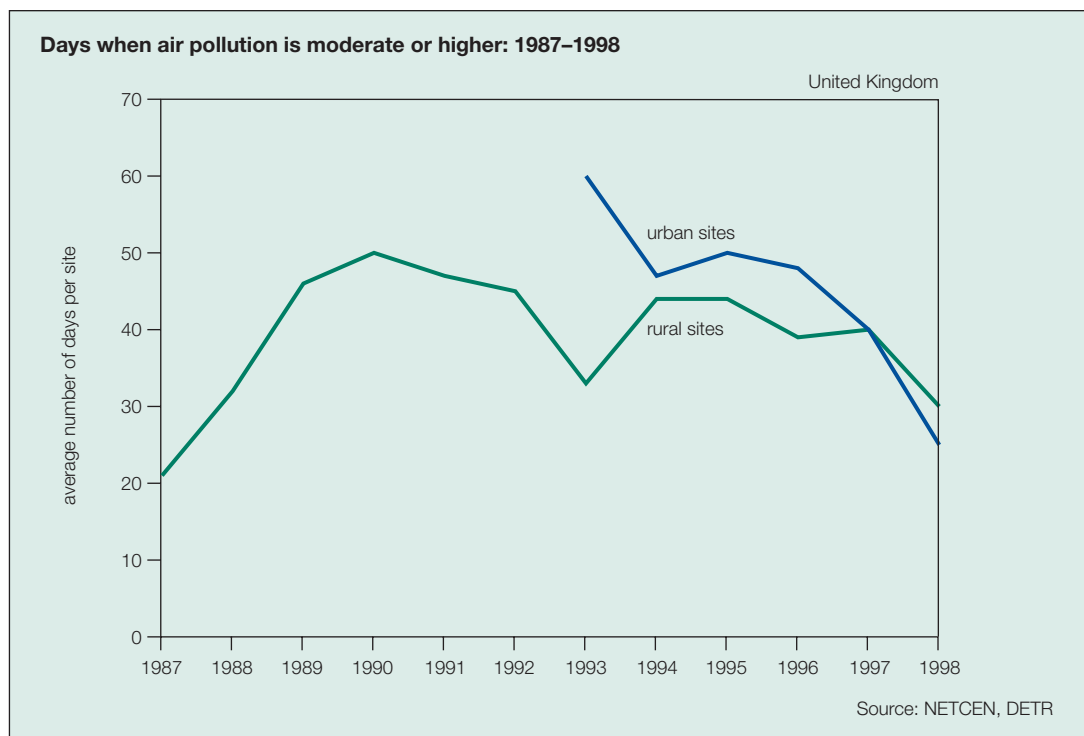
Background Carbon dioxide emissions are mainly caused by energy consumption. Transport has been the fastest growing source in the UK as a result of the sharp increase in road traffic, particularly in the 1980s (see indicator N3).

Strategy *A better quality of life: A strategy for sustainable development for the UK (6.22-6.37)*

Forthcoming UK Climate Change Programme

Objective Reduce air pollution and ensure air quality continues to improve through the longer term

Indicator Days when air pollution is moderate or higher **H10**



In urban areas, the average number of days per site when air pollution was recorded as moderate or higher fell from 60 days in 1993 to 25 days in 1998. In rural areas the average number of days per site has fluctuated between 20 and 50 days per year between 1987 and 1998.

Relevance A key sustainable development objective is to control air pollution in order to reduce the risks of harm to human health, the natural environment and quality of life.

Targets and goals The UK National Air Quality Strategy sets out national air quality objectives to be achieved by 2005 for individual pollutants. When these are met there will still, however, be some days of moderate or higher air pollution.

Trends Between 1993 and 1998, days of pollution at urban sites caused by particles fell by about two thirds and those caused by sulphur dioxide fell to low levels. By 1998 the main causes in urban areas were particles and ozone. In rural areas the main cause was ozone. Production of ozone is affected by the weather, which can also lead to ozone and the pollutants which cause it being blown over from mainland Europe. Lower concentrations are generally recorded in urban areas where ozone undergoes chemical reactions with oxides of nitrogen to form nitrogen dioxide.

Background This indicator measures the average number of days per site on which pollution levels were above National Air Quality Standards. The Standards represent defined levels which avoid significant risks to health. As levels increase above the Standard, the likelihood of effects on health increases. For example, levels of ozone in the 'high' band may cause cough and discomfort on deep breathing during exercise in some people.

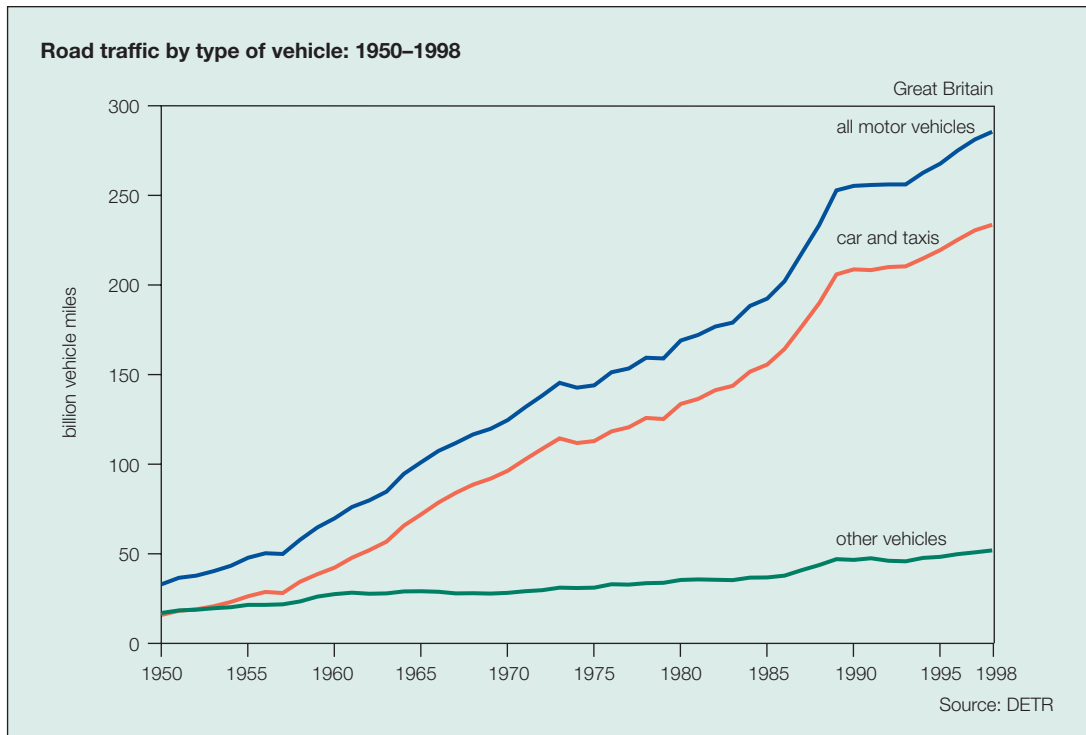
Strategy *A better quality of life:* A strategy for sustainable development for the UK (6.22-6.37)

The United Kingdom National Air Quality Strategy and its review

Objective Improve choice in transport; improve access to education, jobs, leisure and services; and reduce the need to travel

Indicator Road traffic

H11



Motor vehicle traffic in 1998 was more than eight times that in 1950, and car traffic in particular has increased by more than fourteen times.

Relevance The key objective is to strike the right balance between transport's role in helping the economy progress and allowing people to travel wherever they need to go, while at the same time protecting the environment and improving quality of life. In the past traffic growth has been associated with economic growth, but the resulting volume of traffic leads to congestion, noise and air pollution and contributes to greenhouse gas emissions which cause climate change.

Targets and goals The integrated transport policy states that rates of growth should be reduced, with an absolute reduction where environmental damage is greatest. The Commission for Integrated Transport will advise on whether to set a national road traffic reduction target for England. The Scottish Executive and Welsh Assembly have responsibility for targets in the rest of Great Britain.

Trends Over the last 20 years, the amount of car mileage per head of population has grown by 65 per cent. If no action were taken, road traffic could increase by more than a third over the next 20 years.

Background Road traffic is one of the fastest growing contributors to greenhouse gas emissions which cause climate change. It also adds substantially to local air pollution and to noise levels. Estimates suggest that the cost of congestion runs into billions of pounds each year.

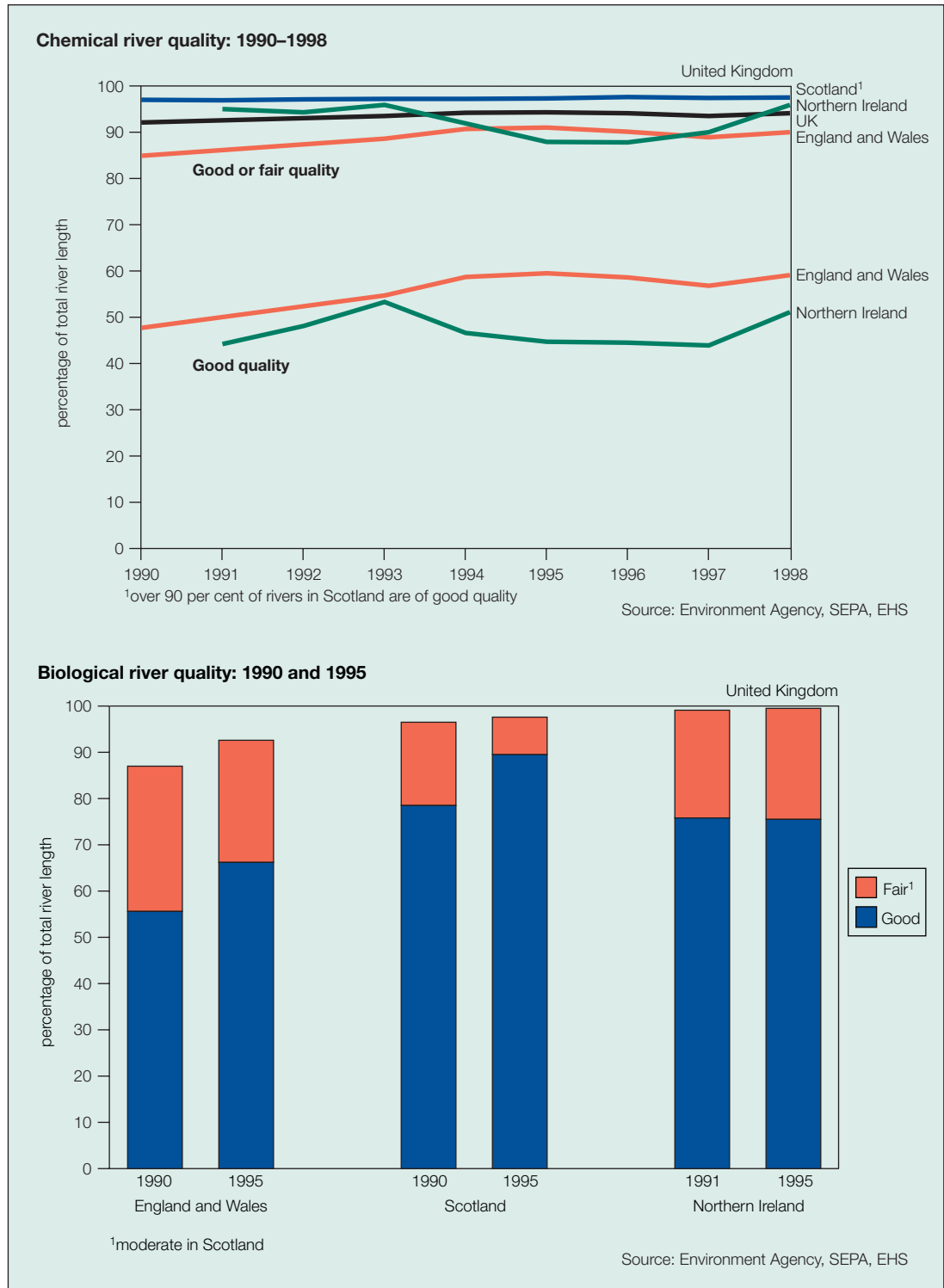
Strategy *A better quality of life.* A strategy for sustainable development in the UK. (8.19-8.28)

A new deal for transport: Better for everyone. The government's white paper on the future of transport

Objective Improving river quality

Indicator Rivers of good or fair quality

H12



Nearly 95 per cent of the river network in the UK was assessed as being of good or fair chemical quality in 1998, and nearly 95 per cent as good or fair (moderate in Scotland) biological quality in 1995.

Relevance

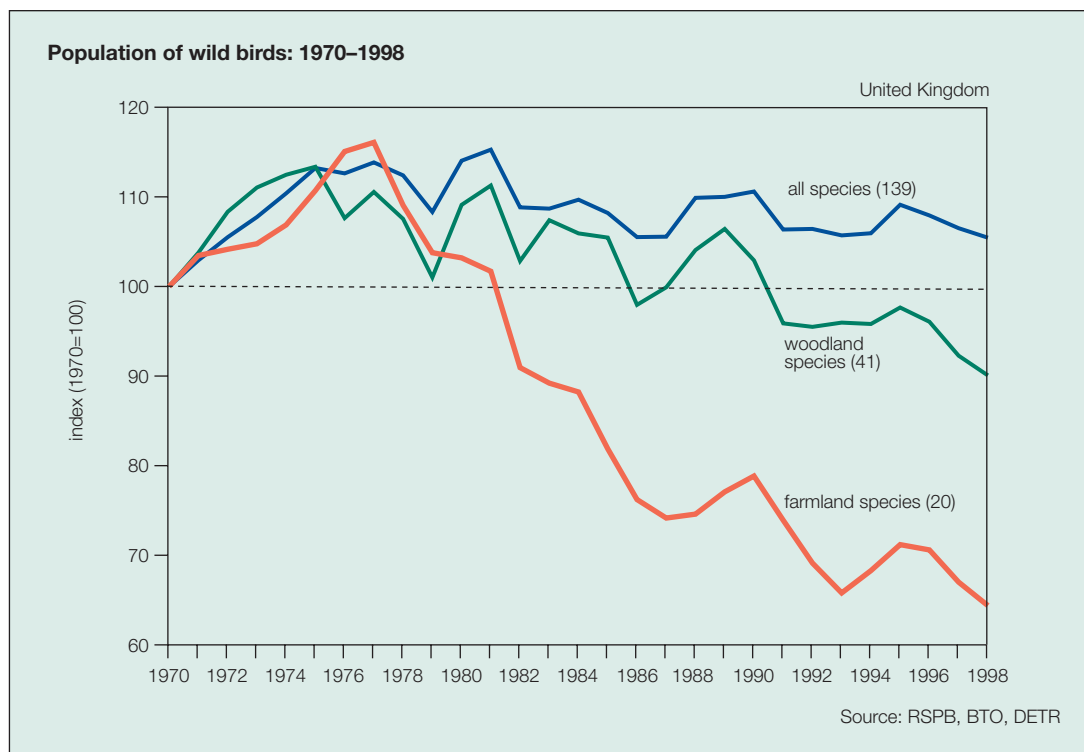
River water quality is important because rivers are a major source of water used for drinking and by industry. Rivers also support a wide variety of wildlife and are used extensively for recreation. Abstraction from rivers, and from the groundwaters that support them, affects their flow and their quality.

<i>Targets and goals</i>	River quality objectives (RQOs) along almost a fifth of river length in England and Wales are not met. The government aims to eliminate half of that shortfall by 2005, with further improvements in compliance in the longer term. This is equivalent to increasing RQO compliance from 82 per cent in 1987 to at least 91 per cent by 2005.
<i>Trends</i>	In general, chemical and biological river quality has improved during the 1990s. In England and Wales the percentage of river lengths which were of good chemical quality rose from 48 per cent in 1990 to 59 per cent in 1998. The slight decline in quality between 1995 and 1997 was mainly due to a prolonged period of low rainfall which caused lower river flows in some parts of England.
<i>Background</i>	The chemical quality classification is based on three determinands, but other substances affect the biology. Biological quality gives an integrated assessment of the effect of all pollutants. Chemical and biological quality is also affected by how abstractions from rivers and effluent returns to them are managed, and by the design and maintenance of navigation and flood control measures.
<i>Strategy</i>	<i>A better quality of life.</i> A strategy for sustainable development in the UK. (8.29-8.31)

Objective Reverse the long-term decline in populations of farmland and woodland birds

Indicator Populations of wild birds

H13



Farmland and woodland birds have generally been declining from the mid-1970s to 1998. Populations of some farmland birds such as the skylark and corn bunting, and of woodland birds such as the song thrush and bullfinch, have fallen by more than half.

Relevance We value wildlife for its own sake and because it is an integral part of our surroundings and our quality of life. Birds are regarded as good indicators of the broad state of wildlife and the countryside, because they are wide-ranging in habitat distribution and tend to be at or near the top of the food chain.

Targets and goals Reverse the long-term decline in populations of farmland and woodland birds. Specifically to halt or reverse declines in 26 priority species identified in the UK Biodiversity Action Plan by 2008; 11 of the priority species are farmland or woodland birds included in this indicator, including the skylark, corn bunting, song thrush and bullfinch

Trends Although populations of the more common¹ farmland and woodland birds have been declining, populations of other birds, such as open water birds and many rare birds, have been stable or rising.

Background There are many factors affecting populations of birds and other wildlife species. These include short-term influences such as the weather and a range of longer-term influences such as changes in farming practices, loss of habitat diversity, urban development, road building, climate change, loss of habitats, changes to food supplies and pollution

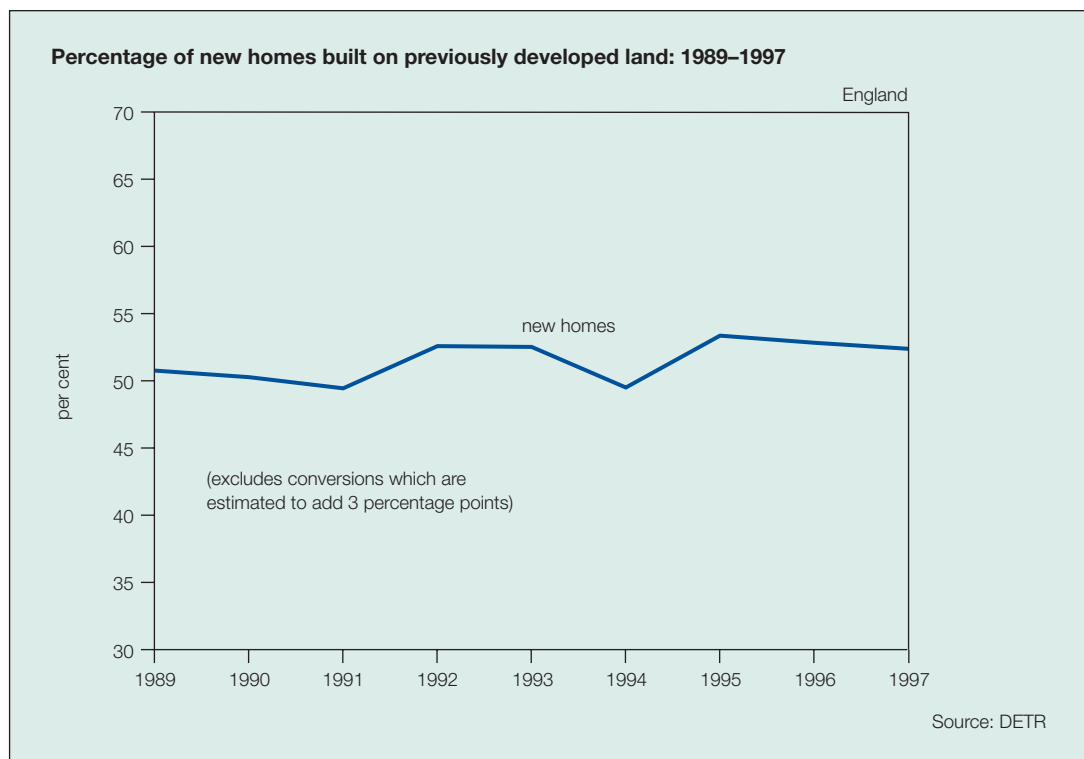
Strategy *A better quality of life. A strategy for sustainable development in the UK.* (8.53-8.58)

UK Biodiversity Action Plan.

¹ This index is based on data for 139 species of more common breeding birds, which are native to the UK. Rarer species have been excluded.

Objective Re-using previously developed land, in order to protect the countryside and encourage urban regeneration

Indicator New homes built on previously developed land **H14**



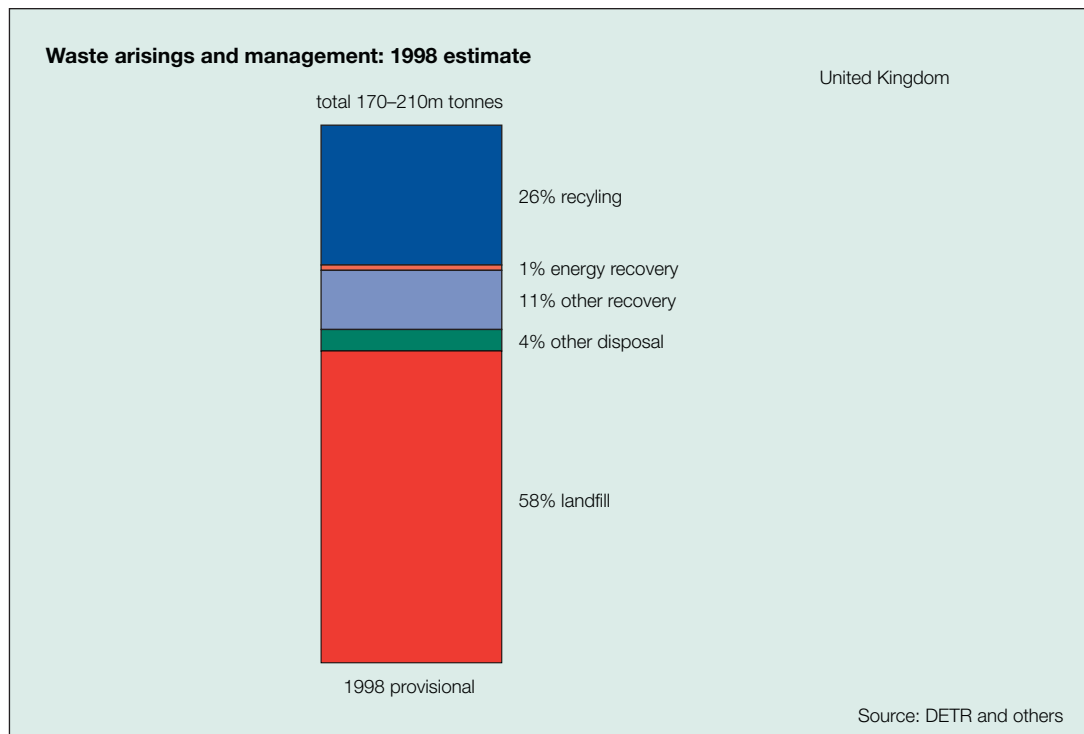
In England, in 1997, about 55 per cent of new homes (including conversions of existing buildings) were built on previously developed land. The government has set a target of 60 per cent to be achieved by 2008.

Relevance	New development within existing urban areas contributes to the revitalisation of communities and enables people to live near to shops and employment, reducing the need to travel. Use of previously developed land wherever possible is also important for the protection of the green belt and countryside.
Targets and goals	60% of new homes and conversions to be on previously developed land by 2008 in England.
Trends	The percentage of homes built on previously developed land has increased very slightly since data were first collected in 1989. Earlier figures for the percentage of previously developed land used for new housing indicate a steady increase since 1985.
Background	The percentage is much higher in urban areas (70 per cent in 1991-1995), but is still substantial in rural areas (25 per cent). There is also considerable regional variation, ranging from 85 per cent in London to 36 per cent in the South West and the East Midlands. These figures, and the 60 per cent target, relate to England only, but this is still a major issue in the UK context.
Strategy	<i>A better quality of life.</i> A strategy for sustainable development in the UK. (7.54-7.73) <i>Planning for the communities of the future</i> , DETR, 1998

Objective Move away from disposal of waste towards waste reduction, reuse, recycling and recovery

Indicator Waste arisings and management

H15



It is estimated that between 170 and 210 million tonnes of waste are produced each year in the UK by households, commerce and industry, including construction and demolition. Nearly 60 per cent of this is disposed of in landfill sites.

Relevance 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 levels of reuse, recycling and energy recovery will contribute to sustainable development

Targets and goals Range of targets in draft waste strategies for England and Wales, Scotland and Northern Ireland.

Trends The 1998 estimate is provisional, and will be revised when final information from current surveys is available. For most sectors there are no comparable data for earlier years. Trends in household waste are illustrated in Indicator A5, which shows an increase of 26% in total household waste in England and Wales between 1983/84 and 1997/98.

Background The government is committed to achieving targets derived from European legislation, such as the Landfill Directive and the Packaging Directive. The Landfill Directive, which requires substantial amounts of waste to be diverted from landfill, will require a step change in the management of municipal waste in the UK.

Strategy *A better quality of life.* A strategy for sustainable development in the UK. (6.5)
A way with waste: Draft waste strategy for England and Wales
National waste strategy: Scotland. Draft strategy for Scotland
Waste management strategy 1999-2019. Draft waste strategy for Northern Ireland.