



Sustainable
development

PACK 3

Towards a
sustainable
future



About this pack

Objectives

When you have completed this pack you will have examined UK progress towards sustainable development. This pack will help you to:

- explore the role that individuals, organizations and governments can play
- describe the UK's Sustainable Development Strategy and progress towards this
- examine other progress towards sustainable development including the UK's Biodiversity Action Plan.

This pack is relevant to the National Diploma unit **Sustainable development**, and in particular to:

- Outcome 2: Understand the importance of resources and environmental management sustainable development
- Outcome 3: Know how economics and society contribute to sustainable development
- Outcome 4: Understand the methods being used to implement sustainable development.

It is also relevant to the key skill application of number, and in particular N2.1 (read and understand tables, charts, graphs and diagrams)

Links to other packs

This is one in a series of learning packs covering environment law, sustainable development and managing waste. The other packs in the series cover:

- Overview of environment law
- Main areas of environment law
- Principles of sustainable development
- Issues in sustainable development
- Towards a sustainable future
- Managing waste
- Waste legislation
- Waste in agriculture



Introduction

If we are to create a more sustainable future, we all have a role to play:

- each citizen and household makes a choice which can increase or reduce their own impact on the environment – the average person's 'carbon footprint' is around 10 tonnes a year
- businesses and other organisations such as schools and colleges all have their own 'eco-footprint'
- the government has a key role to play on setting policy for the country as a whole.



Activity

Suggest ways in which each person or group can help to create a sustainable future:

- yourself as a citizen

- businesses

- your college

- the government



Feedback

Individuals can help by:

- reducing household energy use e.g. by better insulation
- reducing carbon emissions from transport e.g. by driving less, using public transport or choosing a more energy-efficient car
- reducing or recycling waste
- participating in local initiatives designed to increase sustainability.

Organizations can help by:

- auditing their environmental impact
- aiming for carbon neutral activities
- supporting local and national initiatives.

The government's role includes:

- setting the national Sustainable Development Strategy
- monitoring progress and gathering support
- leading other initiatives relevant to sustainable development including the UK's Biodiversity Action Plan
- working with other countries through international forums such as Kyoto.

The rest of this pack focuses in particular on UK government initiatives.





The UK Government Sustainable Development Strategy

The UK Government Sustainable Development Strategy, *Securing the future*, was launched by the Prime Minister in March 2005, and builds on the 1999 strategy, *A better quality of life*. The strategy focuses on four priority areas:

- Sustainable consumption and production
- Climate change and energy
- Protecting natural resources and enhancing the environment
- Creating sustainable communities and a fairer world

In order to monitor progress the government has identified 68 indicators, organized under the following headings:

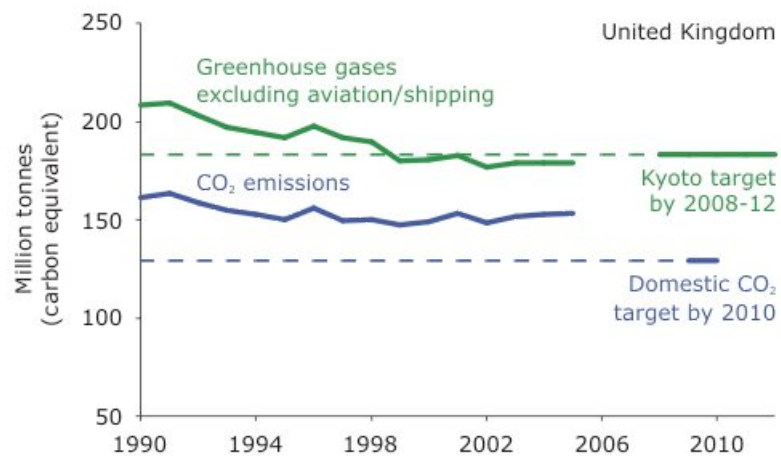
- Greenhouse gas emissions
- Electricity generation
- Carbon dioxide and other emissions from household, transport and industry
- Resource use including energy and water
- Waste
- Natural resources – this includes several indications especially relevant to the land-based sector including bird populations, biodiversity conservation, farming & environmental stewardship, land use and river quality
- Contextual indicators such as economic growth, productivity and investment
- Society including community participation and fear of crime
- Employment and poverty including employment rates and childhood poverty
- Education
- Health including life expectancy and mortality rates
- Mobility and access
- Social justice/environmental equality including housing conditions, homelessness and air quality
- International – UK International assistance
- Wellbeing

You can find a full list of the indicators in Appendix 1.



Progress with the indicators

The government publishes statistics showing progress with each indicator. For example, the following graph shows progress towards reducing greenhouse gas emissions.



Source: Defra, DTI, netcen



Activity

How many million tonnes (carbon equivalent) did the UK emit:

- in 1990?
- in 2004?

If current trends continue, would the UK achieve:

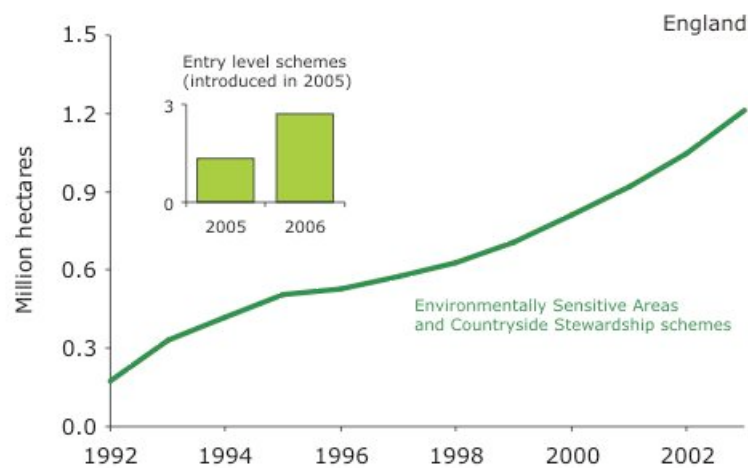
- its Kyoto target by 2008?
- its CO₂ target by 2010?

Check your answers with those at the end of the pack.



Indicators for the land-based sector

Some indicators are especially relevant to the land-based sector. For example, the strategy is keen to see an increase in countryside stewardship schemes. This graph shows progress:



Note: Includes land covered by the Environmentally Sensitive Areas Scheme, Countryside and Arable Stewardship Schemes.

Source: Defra

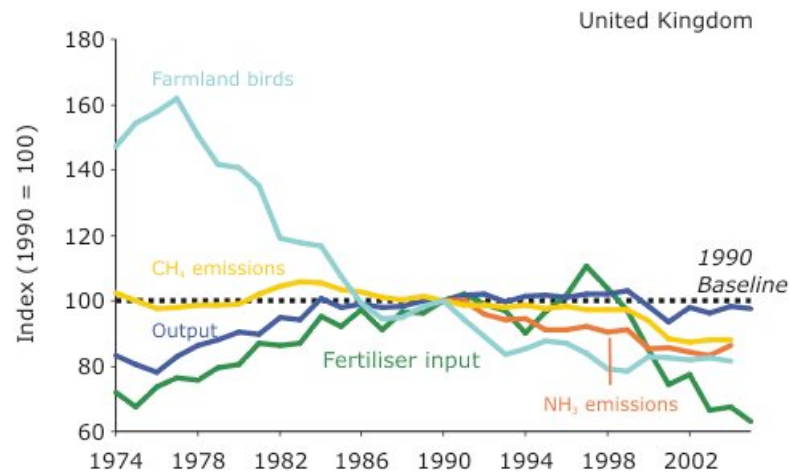
Key indicators for agriculture also include:

- agricultural output
- emissions of nitrates
- fertilizer input
- farmland birds.





This graph shows progress for these indicators. The dotted line represents the 1990 figure for each indicator. So you can see that agricultural output rose between 1974 and 1968, stabilized until 1998 and then fell below 1990 levels.



Source: BTO, Defra, RSPB



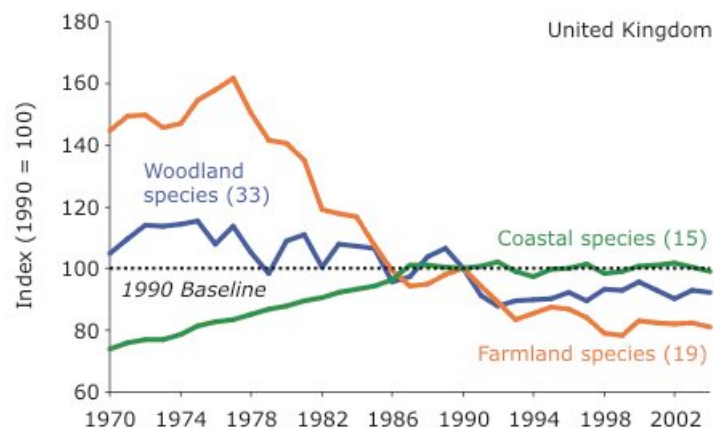
Activity

What does this graph tell you about:

- fertiliser input?
- farmland birds?

Check your answers with those at the end of the pack.

The following graph compares the fortunes of farmland birds with woodland and coastal species.

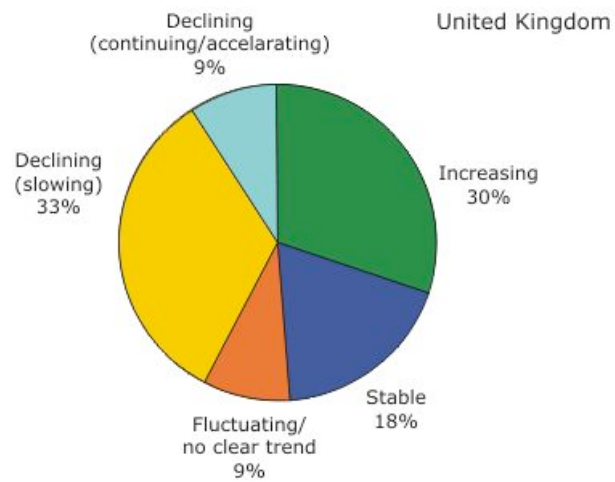


Note: Figures in brackets give the number of species included in each category

Source: Defra, RSPB, BTO



This pie chart shows an indication of biodiversity – progress with conservation of different habitats.



Total number of assessed habitats: 33

Note: For those habitats with known status only

Source: UK Biodiversity Partnership



Activity

What percentage of habitat is:

- increasing?
- stable?
- declining?

What does the pie chart tell you about the declining habitats?

Check your answers with those at the end of the pack.

You can examine progress with all the indicators on the web site.



The Sustainable Development Commission

The Sustainable Development Commission is the Government's independent watchdog on sustainable development, reporting to the Prime Minister and the First Ministers of Scotland and Wales. They aim to put sustainable development at the core of Government policy by:

- Producing evidence-based public reports on contentious environmental, social and economic issues, such as nuclear power
- Drawing on expert opinion to advise key Ministers, policy-makers and stakeholders across Government
- Responding openly to Government policy initiatives
- Inviting debates on controversial subjects
- Undertaking watchdog appraisals of Government's progress.

The commission has recently published a report on *A vision for sustainable agriculture* which you can download from the website.





The UK Biodiversity Action Plan

The UK Biodiversity Action Plan (launched in 1994) was the government's response to the Convention on Biological Diversity at the Rio Earth Summit. It sets out a programme for conserving the UK's biodiversity and has led to the production of:

- 391 species action plans
- 45 habitat action plans
- around 150 local biodiversity action plans

The habitat action plans cover specific habitats such as lowland heath, native pinewood and ancient or species rich hedgerows.

The species action plans cover a wide range of species including the song thrush, skylark, heath fritillary, great yellow bumblebee and many other plant and animal species.

There are regular reports from the Biodiversity Action Plan showing how progress is being made overall, and with individual species and habitats.



Activity

Visit the website for the Biodiversity Action Plan at www.ukbap.org.uk and find the action plan for a habitat or species that interests you. From the action plan note down:

- why it is important to conserve this habitat or species
- what the objectives and targets are for this habitat or species

Then find out what progress there has been to date at the BAP reporting website at www.ukbap-reporting.org.uk.



Feedback

Here are the objectives for an example habitat plan.

Habitat: Ancient and/or species-rich hedgerows

Action plan objectives and targets

- Halt the net loss of species-rich hedgerows through neglect and removal by the year 2000.
- Halt all loss of hedgerows which are both ancient and species-rich by 2005.
- Achieve favourable condition for 25% (c.47,500 km) of species-rich and ancient hedges by 2000.
- Achieve favourable condition for 50% (c.95,000 km) of species-rich and ancient hedges by 2005.
- Maintain the overall national number of individual hedgerow trees (estimated by CS2000 to be 1.8 million in Great Britain in 1998), by maintaining the number of such trees within each county or district, through ensuring a balanced age structure.



And here are the objectives for an example species plan.

Species: Corn bunting

Action plan objectives and targets

- In the short term, halt or reverse the decline in numbers of the corn bunting by the year 2003 so that the Breeding Bird Survey index is at least at 1996 levels.
- In the long term see a sustained recovery in numbers so that the BBS index is at least 50% higher than 1996 levels by 2008.
- Expand the range from that of 1996, as measured by the frequency in random BBS squares, by 2008.





Review quiz

- 1 The average person's 'carbon footprint' is around:
 - a) 1 tonne per year
 - b) 5 tonnes per year
 - c) 10 tonnes per year
 - d) 20 tonnes per year
- 2 Give three examples of indicators of sustainable development
 - a)
 - b)
 - c)
- 3 Is the UK on target to achieve:
 - a) its Kyoto target for greenhouse gasses?
 - b) the domestic target for CO₂?
- 4 Which of the following species of bird has declined most since 1978?
 - a) woodland species
 - b) farmland species
 - c) coastal species
- 5 What percentage of habitats is increasing?
 - a) 9%
 - b) 18%
 - c) 30%
 - d) 37%



Answers to activities

Page 6: In 1990 the UK emitted about 210 million tonnes (carbon equivalent). By 2005 this figure had fallen to about 180 million tonnes. The UK appears on target to achieve the Kyoto target but the domestic CO₂ target looks less achievable.

Page 8: Fertiliser input rose steadily between 1974 and 1997. Since then it has fallen to a lower level than in 1974. Farmland bird populations fell sharply between 1978 and 1994, since when the decline has eased.

Page 9: 30% of habitats are increasing, 18% are stable and a total of 42% (33% +9%) are declining. In most of the declining habitats the decline is now reducing though in 9% it is growing worse.

Answers to review quiz

- 1 (c) 10 tonnes per year
- 2 See appendix A
- 3 The UK appears on target to achieve the Kyoto target but the domestic CO₂ target looks less achievable.
- 4 (b) farmland species
- 5 (c) 30%

Further information and weblinks

If you refer to information in this pack, please quote the pack number, title, date and LBCNC in your references.

The government's own sustainable development unit is at:

www.sustainable-development.gov.uk

The sustainable development commission is at:

<http://www.sd-commission.org.uk/>

For more on Agenda 21:

<http://www.un.org/esa/sustdev/documents/agenda21/index.htm>

The UK Biodiversity Action Plan is at:

<http://www.ukbap.org.uk>

And for progress on the action plans:

<http://www.ukbap-reporting.org.uk/>



Full list of UK government indicators

Greenhouse gas emissions

1. Greenhouse gas emissions
2. Carbon dioxide emissions by end user
3. Aviation and shipping emissions

Electricity generation

4. Renewable electricity
5. Electricity generation

Carbon dioxide and other emissions

6. Household energy use
7. Road transport
8. Private vehicles
9. Road freight
10. Manufacturing sector
11. Service sector
12. Public sector

Resource use

13. Resource use
14. Energy supply
15. Water resource use
16. Domestic water consumption
17. Water stress

Waste

18. Waste
19. Household waste per person

Natural resources

20. Bird populations
21. Biodiversity conservation
22. Agriculture sector
23. Farming & environmental stewardship
24. Land use
25. Land recycling
26. Dwelling density
27. Fish stocks
28. Ecological impacts of air pollution
29. Emissions of air pollutants
30. River quality
31. Flooding

Contextual indicators

32. Economic growth
33. Productivity
34. Investment
35. Demography
36. Households and dwellings

Society

37. Active community participation
38. Crime
39. Fear of crime

Employment and poverty

40. Employment
41. Workless households
42. Economically inactive
43. Childhood poverty
44. Young adults
45. Pensioner poverty
46. Pension provision

Education

47. Education
48. Sustainable development education

Health

49. Health inequality
50. Healthy life expectancy
51. Mortality rates
52. Smoking
53. Childhood obesity
54. Diet

Mobility and access

55. Mobility
56. Getting to school
57. Accessibility
58. Road accidents

Social justice/Environmental equality

59. Social justice
60. Environmental equality
61. Air quality and health
62. Housing conditions
63. Households living in fuel poverty
64. Homelessness
65. Local environment quality
66. Satisfaction in local area

International

67. UK International assistance

Wellbeing

68. Wellbeing



Acknowledgements

This learning pack has been produced by the Land Based Colleges National Consortium Ltd.

The LBCNC is a consortium of colleges working in the land-based sector, which cooperate in the development and production of quality flexible learning materials designed to encourage independent learning.

We would like to acknowledge the contributions made by the following individuals and colleges in the development of this learning pack:

Critical review and comment

Colleagues from:

Kingston Maurwood College

Sparsholt College

Developed and produced for LBCNC by Learners First

Graphic design: Eat Cake Design, Bristol

Page layout: Sky Willmott

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For further information please contact the LBCNC project management team at 7 Tyne Road, Bishopston, Bristol BS7 8EE.

Tel 0117 942 3504