



Sustainable
development

PACK 1

Principles of
sustainable
development



About this pack

Objectives

When you have completed this pack you will have explored the importance of sustainable development in the land-based sector.

This pack will help you to:

- define sustainable development
- describe international moves towards sustainable development.

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

- Outcome 1: Be able to explain the principles of sustainable development
- Outcome 4: Understand the methods being used to implement sustainable development.

It is also relevant to the key skill ICT and in particular ICT 2.1.

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



What is sustainable development?

In 1997 the United Nations Commission on Environment and Development produced the Brundtland Report which defines sustainable development:

'Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.'

Unit 31 of the Edexcel BTEC National in countryside management states that within sustainable development:

'Social progress for everyone through the maintenance of economic growth and employment must be met by the prudent use of natural resources and the enhancement of the environment.'

And the ACE Information Programme says:

'Sustainable development incorporates the dual issues of environment and society.'



Activity

Drawing on these three definitions and your own knowledge, how would you define sustainable development?

For more ideas, try typing the following into Google:

'define: sustainable development'





Feedback

The two key things are:

- **sustainable** involves the idea of using natural resources sensibly, and in ways that protect the environment
- **development** involves the idea of continuing economic growth, and perhaps a greater sharing of the benefits.

Some of the issues raised by the Google search include:

- favouring the use of renewable resources – for example using timber from forests that are well managed, or using renewable energy sources
- taking greater care of non-renewable resources – whether energy such as oil or other precious resources such as the Amazon rain forest
- avoiding permanent damage to the environment through climate change, pollution, etc.
- increasing social justice – several definitions refer to the need for development to include the world's poor
- considering future generations – most definitions make some mention of the need to safeguard the world for the future
- preserving diversity – there is growing awareness that we cannot afford to go on damaging irreplaceable eco-systems.

The Google 'define:' search can be extremely useful – try using it for related terms like 'sustainability' or 'diversity'.





International development

In the last twenty years, sustainable development has become a higher priority for the world's governments.

1987 – Our common future

During the 1980s there was increasing concern about the effects of economic development on:

- the environment
- human health
- depletion of natural resources

The United Nations setup a Commission on Environment and Development (the Brundtland Commission) which published an important report: *Our common future*.

The report recognized that, while most of today's leaders will be dead by the time global warming, resource depletion, desertification and pollution have their full effect, young people and their children will have to live with the consequences. It called on the world's governments to take greater responsibility for policies that damage the environment. It concluded that it was not too late to change these policies – but warned that we must act now.





1992 – Agenda 21

In 1992 the UN held a follow-up conference on environment and development in Rio de Janeiro – often called the Earth Summit. Many of the world's governments signed up to *Agenda 21* which is an international commitment to sustainable development.

Agenda 21 has four main sections:

- **Social and economic dimensions** – including combating poverty, and promoting international co-operation
- **Conservation and management of resources for development** – for example, promoting sustainable agriculture and rural development conservation of biological diversity, protection of the atmosphere.
- **Strengthening the role of major groups** including women, young people, workers and indigenous groups.
- **Means of implementation** – including education, science, technology and international decision-making.

Agenda 21 stresses the integration of these four areas and this is what makes it different from other environmental agreements. Agenda 21 recognises that poor health, poverty, oppression, injustice and environmental degradation are interlinked.

Thus, a good example of Agenda 21 is helping those without a voice (often indigenous people) to develop sustainable businesses (e.g., fair-trade), which work with rather than against the environment (organic or low input), so providing the income for communities to build hospitals and schools to enable children and adults to become educated and develop their skills (e.g., doctors) to allow them to become less dependent upon foreign skills.

Agenda 21 promotes the idea of 'Think globally, act locally' and there are important roles, not just for national governments but also for local authorities.



Activity

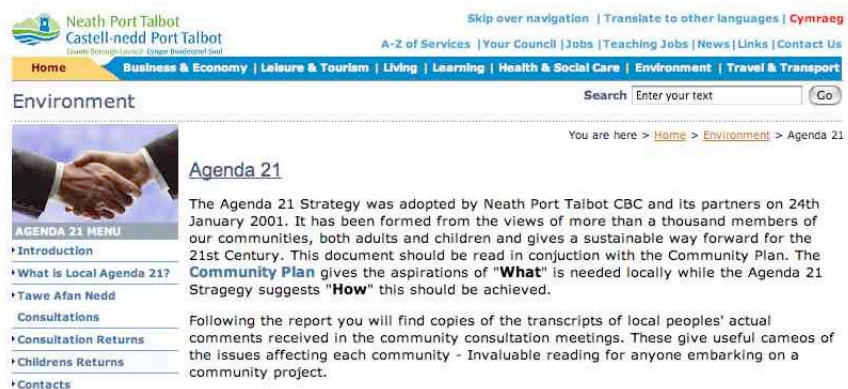
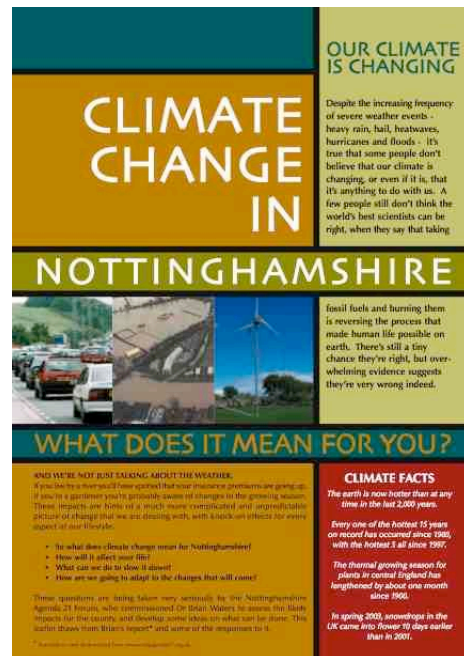
The local authority for your own area will have commitments under Agenda 21. Find out what it is doing – for example, you could do a websearch for Agenda 21 + your local authority.



Feedback

A good UK example is the development of community gardens, usually revitalised allotments where all segments of the community, including less represented groups grow food. These provide a variety of health and social welfare benefits, as well as being good for the environment by reducing food miles.

Your own local authority may have produced a booklet or website like these:





1997: The Kyoto Protocol

It became clear during the 1990s that global warming would be one of the main threats to sustainable development.

Global warming threatens:

- major climate change
- increased numbers of climate catastrophes
- rising sea levels which threaten low-lying areas
- increased desertification
- extinction of species which cannot adapt to rising temperatures.

The Kyoto protocol was adopted by 84 countries in 1997 and has now been ratified by 165 countries.

The protocol binds countries to reducing their emissions of greenhouse gasses:

- Carbon dioxide
- Methane
- Nitrous oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulphur hexafluoride

Reducing emissions

The EU countries have agreed to reduce emissions between 1990 and 2012 by 8%. Examples of reducing emissions include:

- reducing energy use
- using renewable sources of energy
- making cars, offices, factories and homes more energy efficient.



Removing greenhouse gases

Countries can also 'offset' their emissions by taking steps to remove greenhouse gasses from the atmosphere. This is especially relevant to the land-based sector as it involves things like:

- creating new forests
- managing forests
- managing grazing land.

These activities help to reduce a country's overall level of emissions because green plants, during photosynthesis, absorb carbon dioxide and convert it into oxygen and food.

Emissions trading

The protocol also allows countries to work together to reduce emissions. For example, under 'emissions trading' a country can transfer some of its emissions to another country.



Activity

Find out one way in which the UK has:

- Reduced emissions
- Removed emissions
- Traded emissions with another country





2002: World Summit on Sustainable Development

Despite making real progress with Rio and Kyoto, there is still much more that national governments need to do to make development sustainable. For example:

- The US has not ratified the Kyoto Protocol – but remains the world's largest source of greenhouse emissions.
- Growth in some of the world's largest countries such as China, India and Russia, is placing extra pressures on the environment.

It is therefore crucial that countries continue to work together. One example of this was the world summit on sustainable development in 2002 which took forward some of the work started in Rio.



Activity

Do an internet search for sustainable development using Google or another search engine. Try to find an example of a really innovative approach to sustainable development and describe it briefly here:

Although the US has refused to ratify Kyoto, some US states are themselves taking steps to reduce their impact on the environment. Again, describe one example briefly here:



Review quiz

- 1 In which year was the Rio Earth Summit held?
- 2 What was the main outcome from Rio?
- 3 In which year was the Kyoto protocol agreed?
- 4 What do countries who sign Kyoto agree to do?
- 5 Give one example of how greenhouse gases can be reduced:
- 6 Give one example of how greenhouse gases can be removed from the atmosphere:



Answers to review quiz

1 1992

2 Agenda 21

3 1997

4 They agree to reduce greenhouse gas emissions

5 Examples include:

- reducing energy use
- using renewable sources of energy
- making cars, offices, factories and homes more energy efficient.

6 Examples include:

- creating new forests
- managing forests
- managing grazing land.

Further information and weblinks

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

For Google define, go to:

<http://www.google.co.uk/>

and type in define: followed by the term you are interested in.

Our common future:

<http://www.oup.com/uk/catalogue/?ci=9780192820808>

Agenda 21:

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

The Sustainable Development Commission:

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



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