



Module 5: Focus on the Environment



Schedule for the Unit

Learning Outcomes:

This module complies with the following specifications of the Social and Environmental Studies syllabus:

Students should be given opportunities to:

- Develop knowledge and understanding of the interdependence and interrelationship of cultural, economic, environmental, political and social matters;
- Understand themselves as social beings, their interrelationships within society and their interactions with the environment.

(Source: CCEA 2002)

The module also complies with the following specifications of the GCSE Geography syllabus:

Theme C: Ecosystem and Sustainability

Candidates should be given the opportunity to:

- Develop a sense of place and an appreciation of the environment, as well as awareness of the ways in which people and environments interact, the importance of sustainable development in those interactions, and the opportunities, challenges and constraints that face people in different places;
- Develop an understanding of global citizenship and the ways in which places and environments are interdependent;
- Understand the consequences and variety of the use of natural resources and environments and of approaches to their protection, conservation and sustainable management.

Introduction

This module focuses on attitudes to the environment, on sustainability and the interdependence between the environment and human behaviour. It is the aim of this module to discuss with the students to what extent individual behaviour has an effect on sustainable development and the protection of the environment. Students will view findings of the Northern Ireland Life and Times Survey to find out about attitudes toward the environment and environmental behaviour in Northern Ireland.



Activity 1: Facts and Figures about the Environment and Eco Policy

In this exercise, by visiting a number of websites students retrieve information and statistics on the environment in Northern Ireland with regard to fossil fuels and global warming, energy efficiency, waste management and pollution.

Activity 2: Attitudes to the environment

In this exercise students investigate and discuss attitudes to the environment expressed by respondents in the 2000 Northern Ireland Life and Times survey.

Activity 3: Project

Lough Neagh is the largest fresh water lake in the UK. In this project students explore how an environmentally-friendly management of Lough Neagh could look like.



Module 5: Focus on the Environment

Factsheet 1



Fossil Energy and Global Warming

According to the Environment Agency (www.environment-agency.gov.uk/), energy use has been rising over the past thirty years, mainly because of increased demand from households and transport. A 22% increase in household carbon emissions by 2010 is forecast. In the UK from 1980-2003 the amount of energy used for transport and in the homes has increased from 18% to 35% and 40% to 49% respectively. The energy used to facilitate this rise comes almost exclusively from non-renewable sources such as fossil fuels (oil, gas, coal). The use of fossil fuels leads to carbon dioxide (CO₂) emission, which contributes to global warming.

Between 1990 and 2003, industrial CO₂ emission has decreased by 19%. This is due to stricter regulations by the Environment Agency but also to the fact that energy-intensive manufacturing businesses have closed or have been relocated to other parts of the world, such as Eastern Europe or Asia.

At the same time, domestic CO₂ emission has increased by 12% and CO₂ emission through transport by 3%. This is despite the fact that more modern technologies mean that pollution from individual vehicles is now lower than it was 15 years ago. According to the UK Department of Transport White Paper published in 2004, transport levels are predicted to rise by 40% until 2025, whilst air transport is predicted to double between 1995 and 2015.

Although the UK has one of the largest potentials for wind, wave and tidal energy in Europe, currently only 3% of electricity comes from renewable resources compared to Austria's 59%, Sweden's 43% and Portugal's 42%.

It is now widely accepted that increased CO₂ emission has contributed to climate change, in particular global warming. Global warming has been linked to hotter and drier summers, warmer and wetter winters, which among other effects lead to increased incidences of floods, droughts (water shortage) and the worldwide rise of sea water levels. (For more information see Climate Change Indicators Report of the Department of the Environment for Northern Ireland for full details: www.ehsni.gov.uk/pubs/publications/cci.pdf). All this endangers the survival of species – both flora and fauna - that rely on certain weather conditions, such as polar bear or alpine plants in mountain regions, to name just two.

In 2000 the NILT survey (**Handout 1**) showed that half of the respondents agreed that there is little point in doing something for the environment unless others did too. However, the figures above dispel the myth that individuals cannot do anything to improve and protect the environment.



Waste, Wastefulness and Pollution

According to the *Wake-up-to-Waste Initiative* of the Department of Environment for Northern Ireland (www.wakeuptowaste.org/schools.cfm), the average Northern Ireland household produces more than a tonne of waste every year. In total, this mounts up to enough rubbish to cover the whole of Northern Ireland. In Northern Ireland, every year:

- 230 million carrier bags are used, most of which end up in landfill sites;
- Around £1m worth of aluminium cans is disposed of;
- An average person uses about 140 glass bottles;
- Three trees have to be felled to provide the quantity of paper that is used by the average household.

Additionally, every day around 200,000 used nappies are thrown in the bin in Northern Ireland.

According to Friends of the Earth (www.foe.co.uk/northern_ireland/), Northern Ireland has one of the poorest records of environmental protection in the UK. For example, in 2004, only 45% of sewage treatment works complied with European law. In 2003, beaches in Millisle, Portstewart and Portrush lost their Blue Flag (the European award for clean beaches and water quality) because of raw sewage being pumped into the sea.

Illegal dumping and landfills have become such a problem that these issues received extensive press coverage.

Only in the past few years, councils have introduced comprehensive recycling schemes. This often happened because of pressure from European legislation, rather than demand by the population or local initiatives. Non-compliance with European legislation would have resulted in severe fees for local councils.

Useful sources of information for the module:

www.greenpeace.org.uk/	Greenpeace (UK)
www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
http://unfccc.int/	UN Convention on Climate Change
www.environment-agency.gov.uk/	Environment Agency UK
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
www.wakeuptowaste.org/	Wake up to Waste
www.brysonhouse-education.com	Bryson House (Education)
www.foyleenergy.org/about.asp	Foyle Regional Energy Agency
www.wrean.co.uk/	Western Regional Energy Agency and Network
www.belfastenergyadvice.com	Belfast Energy Advice Centre

Publication: Being Green: Attitudes to the Environment, by Paula Devine and Katrina Lloyd, Research Update 15:

www.ark.ac.uk/publications/updates/update15.pdf



Module 5: Focus on the Environment

How to?



This sheet provides hands-on guidance on how the information for the Focus on the Environment module can be found in the internet:

Activity 1: Facts and Figures about the Environment and Environment Policy

For this information gathering activity, ask students to visit the following websites to find out facts and figures about the environment in Northern Ireland:

www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
www.wakeuptowaste.org/	Wake up to Waste

Activity 2: Attitudes to the Environment

In this project students explore and discuss attitudes to the environment expressed by respondents in the 2000 Northern Ireland Life and Times survey.

1. Open your web browser and type in the URL for the ARK homepage, which is: www.ark.ac.uk
2. On the ARK homepage:
 - **Either:** Type in 'Environment' in the **Word Search** and then click on the first item on the results page, which is:

NI Life and Times Survey - Environment Resources★★★★★

Environment Resources Questions on **Environment** were asked in 2000. This module was asked as part of the International Social Survey Programme . ARK Resources * Being Green: Attitudes to the **Environment** , by Paula Devine and Katrina Lloyd, Research Update 15, presents results from the 2000 ...<http://www.ark.ac.uk/nilt/results/envres.html> 08/22/03, 10314 bytes

This will take you to the Environment resources page. Mouse-click on **Questions** to view all the questions asked in 2000.

- **Or:** You can also use the menu bars to open the page on the NILT Environment module. Follow the steps below:
 - a. Click on **Specialist sections** → **Surveys** → **NILT – N. Ireland Life and Times Survey**. This will open the NILT home page.



- b. Once on this homepage, click on **Results** → **list of modules**.
Scroll down and click on '**Environment**'.

In the list of questions on the screen, find the following questions:

ENVIRDIF: *Is it too difficult for someone like you to do much about the environment?* 2000

ENVIRRG: *Do you do what is right for the environment, even when it costs more money or takes more time?* 2000

NOPTENV: *Is there point in doing what you can for the environment unless others do the same?* 2000

SCIESOLV: *Will science solve environment problems with little change to our way of life?* 2000

HARMVIRW: *Do people worry too much about human progress harming the environment?* 2000

ENVIRECG: *Does Northern Ireland need economic growth in order to protect the environment?* 2000

HARMEVIR: *Does almost everything we do in modern life harm the environment?* 2000

PRENVIR: *How willing are you to pay much higher prices in order to protect the environment?* 2000

TAXENVIR: *How willing would you be to pay much higher taxes in order to protect the environment?* 2000

CUTENVIR: *How willing would you be to accept cuts in your standard of living in order to protect the environment?* 2000

CTRYEFEN: *Is Northern Ireland doing enough for the environment?* 2000

LESSDRIV: *How often do you cut back on driving a car for environmental reasons?* 2000

Click on the links in each question and view the results. Let the students record and interpret the results. **Handout 1** provides a summary of the results of the questions.

Activity 3: Project: Developing a sustainable development plan for Lough Neagh

Using available Internet resources, students develop a sustainable development plan for Lough Neagh. **Simply type in 'Lough Neagh' in search engines** (such as Google or msn) and find out about existing interest groups, following the search results. Encourage students to consider different interests, such as agriculture, fishing, tourism, transport, wildlife, drinking water production etc. Some useful websites are: www.loughneagh.com/, www.loughneaghpартnership.com/, www.oxfordisland.com, <http://riverbannloughneagh.org/>, www.ehsni.gov.uk/natural/country/61.shtml www.ehsni.gov.uk/pubs/publications/LNMS_June_02.pdf (publications related to Lough Neagh from the Environment and Heritage Service website).



Module 5: Focus on the Environment

Worksheet 1



Activity 1:

This is an information gathering activity. Visit the following websites to find out facts and figures about the environment in Northern Ireland:

www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
www.wakeuptowaste.org/	Wake up to Waste

Visit other related websites, if necessary. Record the information you gathered by topic in the table below. Use the page overleaf, if you need more space or for other subject areas

Global warming and fossil fuels

Waste and waste management/Recycling

Energy efficiency

Transport



Other information/other subjects areas

A large empty rectangular box intended for providing additional information or details related to other subject areas.



Module 5: Focus on the Environment



Worksheet 2

Activity 2:

Visit the ARK website (www.ark.ac.uk) and find out about attitudes to the environment expressed by respondents in the 2000 NILT survey. Complete the tables below and discuss the results. Use the information you have gathered in **Activity 1**.

Table 1: (Fill in figure in %)

Strongly agree	Agree	Neither	Disagree	Strongly disagree	Can't choose
It is just too difficult for someone like me to do much about the environment.					
I do what is right for the environment, even when it costs more money or takes more time.					
There is no point in doing what I can for the environment unless others do the same.					
Modern science will solve our environmental problems with little change to our way of life.					
In order to protect the environment Northern Ireland needs economic growth.					
People worry too much about human progress harming the environment.					
Economic growth always harms the environment.					

Table 2 (Fill in figures in %)

Very willing	Fairly willing	Neither	Fairly unwilling	Very unwilling	Can't choose
How willing would you be to pay much higher prices in order to protect the environment?					
And how willing would you be to pay much higher taxes in order to protect the environment?					
And how willing would you be to accept cuts in your standard of living in order to protect the environment?					

**Table 3: In general, do you think that Northern Ireland is doing...**

	Gender		Age group					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
More than enough								
About right amount								
Too little								
Can't choose								

Table 4: And how often do you cut back on driving a car for environmental reasons?

	Gender		Age group					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Always								
Often								
Sometimes								
Never								
Don't have car/don't drive								



Module 5: Focus on the Environment

Worksheet 3



Activity 3: Project

In this activity you work on a special project.

Lough Neagh – Plan for a sustainable future of the lake

Lough Neagh is the biggest fresh water lake on the British Isles. It is the main drinking water resource in Northern Ireland.

Using internet resources, search for information about Lough Neagh with regard to:

- a. Water quality and water use for drinking water
- b. Eco diversity of the lake and its surroundings;
- c. Tourism;
- d. Agriculture;
- e. Fishing.

Use this information to draft a plan for a sustainable future of the lake. Consider ways of how all interests groups can be satisfied in your plan. If any - activities on or around the lake (for example intensive farming or fishing or certain aspects of tourism) around the lake should be limited seasonally or altogether. Explore ways of alternative employment for interest groups that are affected by these limitations.



**ARK School Resource****Unit 5: Focus on the Environment****Handout 1****Northern Ireland Life and Times Survey: Questions asked in 2000:****Table 1: (Answers in %)**

Strongly agree	Agree	Neither	Disagree	Strongly disagree	Can't choose
It is just too difficult for someone like me to do much about the environment.					
6	35	16	37	3	1
I do what is right for the environment, even when it costs more money or takes more time.					
2	31	33	27	3	3
There is no point in doing what I can for the environment unless others do the same.					
10	40	15	27	5	1
Modern science will solve our environmental problems with little change to our way of life.					
3	17	32	27	8	10
In order to protect the environment Northern Ireland needs economic growth.					
8	43	22	13	1	11
People worry too much about human progress harming the environment.					
5	26	27	31	5	4
Economic growth always harms the environment.					
2	10	32	40	2	11

Table 2 (Answers in %)

Very willing	Fairly willing	Neither	Fairly unwilling	Very unwilling	Can't choose
How willing would you be to pay much higher prices in order to protect the environment?					
5	24	28	17	23	4
And how willing would you be to pay much higher taxes in order to protect the environment?					
3	17	19	21	36	3
And how willing would you be to accept cuts in your standard of living in order to protect the environment?					
2	15	20	25	34	4

Table 3: In general, do you think that Northern Ireland is doing...

	%		
	Male	Female	All
More than enough	3	2	2
About right amount	32	27	29
Too little	37	44	41
Can't choose	26	27	27

Results for people of different ages

	%					
	18-24	25-34	35-44	45-54	55-64	65+
More than enough	0	1	2	3	5	3
About right amount	19	29	27	32	31	32
Too little	40	39	45	44	46	32
Can't choose	41	31	26	21	14	31

**Table 4: And how often do you cut back on driving a car for environmental reasons?**

	%		
	Male	Female	All
Always	2	1	2
Often	7	7	7
Sometimes	21	22	22
Never	49	45	47
No car /can't drive	18	25	22
Can't choose	0	0	0

Results for people of different ages

	%					
	18-24	25-34	35-44	45-54	55-64	65+
Always	2	1	0	3	4	1
Often	4	8	6	7	10	5
Sometimes	20	28	31	22	15	13
Never	45	51	50	47	49	40
No car/can't drive	27	12	12	22	19	39
Can't choose	0	0	0	0	1	0