



the environment, society and the economy

6 Settlement, development and sustainability

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Aim: to examine settlement and development problems in urban and rural areas and on coastlines and approaches to dealing with these problems under the National Spatial Strategy and to consider the potential of cycling as a sustainable form of transport.



SYLLABUS STATEMENT

Elective Unit 5.5 – The Dynamics of Settlement:
Urban settlements display an ever changing landuse pattern and pose planning problems.

Students should study

- › the expansion of cities and pressures on rural land use.

Elective Unit 5.6 – The Dynamics of Settlement:
Problems can develop from the growth of urban centres.

Students should study

- › urban problems of traffic movement and congestion
- › environmental quality
- › the effectiveness of urban planning strategies and urban renewal in solving urban problems.

OUTCOMES

Having completed this unit students should be able to:

- › identify the problems associated with urban sprawl
- › outline the long-term strategies for more balanced regional development
- › identify issues and problems of rural sprawl
- › be aware of the potential and limitations of cycling as a sustainable form of transport.

the video clips

1 URBAN SPRAWL

From THE STATE WE'RE IN, series 2, programme 3

2 RURAL SPRAWL

From THE STATE WE'RE IN, series 2, programme 3

3 PRESSURES ON OUR COASTLINES

From ECOEYE, series 1, programme 3

4 CYCLING: A SUSTAINABLE FORM OF TRANSPORT

From ECOEYE, series 1, programme 7



URBAN SPRAWL



GROUP DISCUSSION

After the students have watched the video clip, initiate a group discussion on the development problems around Dublin. Start by asking students to read the statement from the Taoiseach, Mr Bertie Ahern, T.D., given in the students' background information sheet.

ACTIVITY SHEET

Read the activities given in the students' activity sheet with the class, before asking them to continue with the work described in the sheet.

MAP WORK

See Map 2, p. 58, National Spatial Strategy (NSS) (gateways and hubs) and Map 3, NSS, p. 61 (strategic radials, linking corridors and international access points) for information on the map work part of the activity.



URBAN SPRAWL

background information sheet 1

...But in common with many successful economies, Ireland's development has also been marked by spatial imbalance. The Greater Dublin Area is facing problems of congestion, while a number of regions suffer from under-utilisation of their potential and resources....

Message from the Taoiseach, National Spatial Strategy 2002–2020, 2002, p. iii, www.irishspatialstrategy.ie (cited here after as NSS, 2002)

The National Spatial Strategy, which was published in 2002, provides the context for examining urban, rural, coastal settlements and developments. The aim of the National Spatial Strategy is to provide:

...a twenty year planning framework designed to achieve a better balance of social, economic, physical development and population growth between regions....

Purpose of the NSS, National Spatial Strategy 2002–2020, 2002, p. 10, www.irishspatialstrategy.ie

The concept of sustainable development forms the basis of the National Spatial Strategy.

As the document itself states:

Sustainable development is development that meets the needs of this generation without compromising the ability of future generations to meet their needs. The concept captures the important ideas that development

- > has economic, social and environmental dimensions which together can contribute to a better quality of life
- > will only be sustainable if a balance is achieved between these three dimensions
- > should allow future generations to enjoy a quality of life at least as high as our own
- > should respect our responsibilities to the wider international community.

Sustainable development is more than an environmental concept, although it includes that important element. It also requires a combination of a dynamic economy with social inclusion, giving opportunities for all in a high quality environment.

The World Summit on Sustainable Development held in Johannesburg in September 2002 and the national report for the Summit, Making Ireland's Development Sustainable, have underscored the international and domestic commitment to sustainable development. The NSS, through its focus on economic, social and environmental issues and on the inter-linkages between them, is a key policy instrument in the pursuit of sustainable development. From the point of view of strategic spatial planning, sustainable development will, among other things, mean:

- > maximising access to and encouraging use of public transport, cycling and walking
- > developing sustainable urban and rural settlement patterns and communities to reduce distance from employment, services and leisure facilities and to make better use of existing and future investments in public services, including public transport
- > promoting cost-effective provision of public services like roads, drainage, waste management facilities, lighting, public amenities and schools
- > contributing to the evolution of socially integrated communities in both urban and rural areas
- > minimising the consumption of non-renewable resources like soils, groundwater and agricultural land
- > avoiding adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the maritime environment and the cultural heritage
- > ensuring that construction design is of a high quality and appropriate to the scale and context of its surroundings.

Sustainable development policy framework for the National Spatial Strategy, NSS, 2002, p. 13



URBAN SPRAWL

background information sheet 2

The following table, which summarises the National Spatial Strategy spatial policies, is taken from the introduction of Section 3 of the NSS document.

More efficient Greater Dublin Area	The Greater Dublin Area's vital national role is secured in terms of improved mobility, urban design quality, social mix, international and regional connections.
Strong gateways in other regions	Balanced national growth and development are secured with the support of a small number of nationally significant centres, whose location and scale support the achievement of the type of critical mass necessary to sustain strong levels of job growth in the regions.
Hubs	Balanced patterns of growth are supported by towns that link the capabilities of the gateways to other areas.
County and other town structure	Balanced patterns of growth are supported by towns that capitalise on local and regional roles and are also linked to the roles of the gateways and development hubs.
Vibrant and diversified rural areas	Rural areas benefit from enhanced local employment options and from development of their resource potential.



URBAN SPRAWL

ISSUES AND PROBLEMS

Draw up an initial list of issues and problems arising from urban sprawl around Dublin and in the Leinster area that have been considered in the group discussion.

INTERNET/LIBRARY SEARCH

Study the National Spatial Strategy (available at www.irishspatialstrategy.ie or in local libraries). In particular consider:

- 1 Section 2, 'Ireland's changing spatial structure', from 2.2 'Key development trends within Ireland' onwards
- 2 Section 3 'Ireland: future spatial structure'.

NATIONAL SPATIAL STRATEGY SPATIAL POLICIES

Study the table given in Students' background information sheet 2, which summarises the National Spatial Strategy spatial policies.

MAP WORK

On a blank map of Ireland, mark in the 'gateways' and 'hubs' proposed by the National Spatial Strategy. Draw in strategic radials, linking corridors and international access points under the National Transport Framework.

REPORT

Following the discussion and research described above, write a report giving:

- > an outline of the key development trends within Ireland
- > an outline of the main spatial policies under the National Spatial Strategy aimed at achieving balanced regional development
- > a comment on way the National Spatial Strategy will affect the area in which you live (study Appendix V, Selection rationale for identified towns, NSS, pp 149–50).





RURAL SPRAWL / PRESSURES ON OUR COASTLINES

GROUP DISCUSSION

After students have watched the video clips, open a discussion by asking students to identify the issues arising from one-off rural houses.

Ask students to read the overview statement provided on the students' background information sheet in order to help with the task.

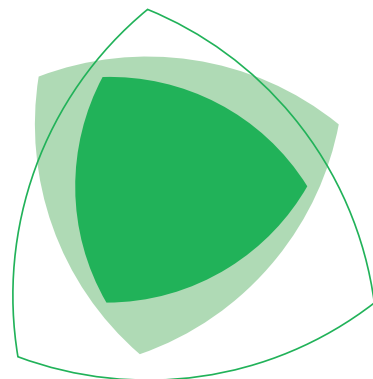
During your group discussion, ask students to note the distinction between rural generated housing and urban generated housing described in the National Spatial Strategy and to consider the extracts entitled 'A need to support rural villages and small towns' and 'Second homes and holiday home development' (see the students' background information sheet).

DEBATE

Ask students to prepare a speech for or against the following motion:

In a democracy people should have freedom of choice. People want to build houses in the countryside, and therefore the government should support them.

Following the debate, students should draw conclusions on the issues of rural housing and suggest recommendations for the future. This could be as part of a group discussion or as an individual assignment.





RURAL SPRAWL / PRESSURES ON OUR COASTLINES

background information

Rural housing is a contentious issue. People like to live in beautiful countryside, they often like to live close to their families or in the place that they grew up, and they like to live in a house that has been built to suit their requirements. It is also considerably cheaper to build than to buy, and the option of building on land that may already be in family ownership is an attractive one. However, one-off rural housing has the potential to raise a number of issues. These include: groundwater pollution from domestic septic tanks; increased traffic hazard due to new vehicle entrances; visually obtrusive and inappropriately designed houses; habitat fragmentation due to inappropriate planting and removal of existing habitats; social isolation due to dispersed housing patterns; unsustainable car dependency; a greater burden on rural transport systems; a stretching of resources with regard to social services; and increased use of minor roads. There are also fears that people will build and sell on – it would seem an obvious way of making money.

Stephen Rhys-Thomas, Planning Officer with the Heritage Council, Heritage Outlook, Summer 2004

RURAL GENERATED HOUSING

Housing needed in rural areas within the established rural community by people working in rural areas or in nearby urban areas...

NSS, 2002, p. 106

URBAN GENERATED HOUSING

Housing in rural locations sought by people living and working in urban areas, including second homes...

NSS, 2002, p. 106

A NEED TO SUPPORT RURAL VILLAGES AND SMALL TOWNS

County development plans ... need to recognise the resource that is the rural village and small town. Such plans should promote policies that incorporate a presumption in favour of appropriate development in villages and small towns, together with specific and practical measures in terms of providing serviced land and improved amenities that support and encourage the development of these towns and villages.

NSS, 2002, p. 108

SECOND HOMES AND HOLIDAY HOME DEVELOPMENT

Some scenic areas of the country, particularly in coastal and lakeside locations, are experiencing development pressures arising from the growing trend of building second homes and developing holiday home accommodation. This process is being driven by the increasing affluence of Irish people, the needs of the domestic tourism industry and the increasing levels of leisure time available.

NSS, 2002, p. 108



CYCLING – A SUSTAINABLE FORM OF TRANSPORT

GROUP DISCUSSION

After students have watched the video clip on cycling in Ireland, open a group discussion on cycling as a form of transport by restating the view of John Bowman, Chairperson of Comhar:

...cyclists ... are the real heroes of sustainable development in the transport area....

John Bowman, Chairperson of Comhar

Ask students what might be meant by this statement.

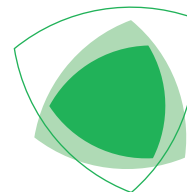
GROUP WORK

Divide the class into groups, and give each group a copy of the students' transport worksheet given below. This will allow students to record their impressions of their school's transport situation and the place of cycling in it. Each group should report back, and the discussion generated should yield issues/questions for investigation in a fieldwork exercise on all transport related to the school. (You may also wish to consult An Taisce's Green schools environmental review booklet.)

MAP WORK

Ask students to plot the school and their homes on a map of the area. Then ask students to examine how a car-sharing scheme could reduce their vehicle use to travel to and from school.

(this is based on an activity from An Taisce's Green Schools programme)





CYCLING – A SUSTAINABLE FORM OF TRANSPORT

worksheet

QUESTION	YES / NO	NOTES
STAFF		
—		
Do most staff travel on foot?	-----	-----
Or by bicycle?	-----	-----
Or by public transport?	-----	-----
Or in shared cars?	-----	-----
STUDENTS		
—		
Do most students travel on foot?	-----	-----
Or by cycle?	-----	-----
Or by public transport?	-----	-----
Or in shared cars?	-----	-----
CARS USED BY STAFF		
—		
Do most staff cars run on diesel?	-----	-----
Or on unleaded petrol?	-----	-----
CARS USED BY STUDENTS		
—		
Do most cars used by students run on diesel?	-----	-----
Or on unleaded petrol?	-----	-----
SCHOOL VEHICLES		
—		
Do school vehicles run on diesel?	-----	-----
Are vehicles tuned and serviced regularly?	-----	-----



CYCLING: A SUSTAINABLE FORM OF TRANSPORT

—
geographical investigation

SYLLABUS REFERENCE

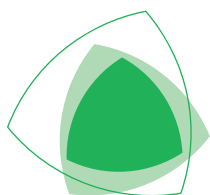
—
Structure and organisation of the investigation,
Core Unit 3, Leaving Certificate Geography Syllabus,
pp 17–18.

SURVEY TITLE

—
**The opinions and energy-related behaviour of
people in the local community.**

The surveying process follows these steps:

- > identifying key aims
- > planning
- > considering methods of gathering information
- > collecting data
- > preparing a report
- > reaching conclusions and making evaluations.



STEP 1

Identify key aims

Discuss the following list of aims with students.

Aims:

- 1 To survey the practice and attitudes of people in the school to cycling.
- 2 To quantify the number of cyclists in the school.
- 2 To assess the factors that encourage/discourage cycling to and from the school.
- 3 To compare the findings with national commuter figures for workplaces, colleges and schools.

STEP 2

Preparation

Ask students to:

- 1 view the video clip on cycling in Ireland
- 2 investigate the facilities for cyclists in their school
- 3 investigate the conditions for cyclists in the area around the school (e.g. presence or absence of cycle paths, etc.)
- 4 find national figures on commuting and cycling (see for example the Central Statistics Office website www.cso.ie)
- 5 study the relevant sections of Attitudes and Actions: A National Survey on the Environment (2000, also 2003) from Department of Environment, Heritage and Local Government.



STEP 3

Considering methods of gathering information

Discuss with students the concepts of a survey of a sample group and a full survey. All the people to be represented by the survey – the students and staff of the school – are available, so a full survey is better than surveying a sample in this case.

Formulating questions

Ask students to study the information on types of survey questions given on the students' background information sheet.

- > Ask students to suggest questions to be included in the survey. List all suggested questions on the board or on paper, and choose approximately ten questions, with reference to the aims of the investigation.
- > Consider taking some questions from the Department of Environment's 2003 National Survey, in order to allow comparison.
- > Practice the survey by getting the class to complete it themselves, and make changes as necessary.
- > Include a section in which the respondent's age group, gender, etc., can be noted.

STEP 4

Collecting data

- > Where students carry out / administer a survey in their own community, anonymity is compromised, and this might affect answers given. The class must reach an agreement on confidentiality and giving and maintaining assurances to people surveyed with regard to their identity and their responses to the survey.
- > Agree on an introduction that will be used with all people surveyed.
- > Choose a random sample: for example, each student carries out ten surveys of households in their own area. Surveys may best be done in pairs and personal security should be a priority. Students who live near each other should check that they will not duplicate surveys.
- > **Problems that may be encountered:** There are particular problems with attitudinal questions that students must take into account when carrying out the survey: for example, people may be reluctant to express opinions on sensitive issues, they may have contradictory opinions or they might not have an opinion on a particular issue at the time. priority. Students who live near each other should check that they will not duplicate surveys.



STEP 5

Preparing a report

In order to record results, ask students to:

- (i) construct a coding frame (a list of question numbers and possible answers), for example:

Q1	possible answers:
	yes no don't know no response
Q2	possible answers:
	agree disagree neither agree nor disagree no response

- (ii) divide completed surveys among class groups and record results on tally sheets, for example:

Question	Response			
Q1	Yes	No	Don't know	No response
Number of Responses				
Q2	Agree	Disagree	Neither agree nor disagree	No response
Number of Responses				

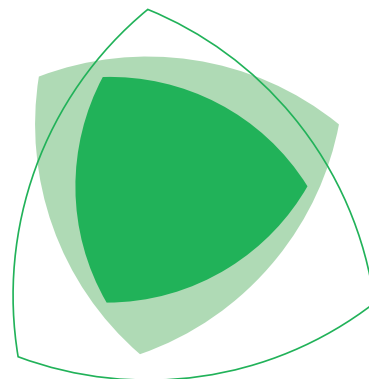
STEP 6

Reaching conclusions and making evaluations

Students should:

- > initiate a group discussion on the results
- > analyse the results in relation to the aims of the investigation, noting comparisons with national attitudes and opinions
- > draw conclusions based on the evidence produced by the investigation
- > evaluate the aims of the investigation in terms of the quality of information discovered and consider questions raised by what was found
- > examine how worthwhile the investigation has been and how it could be improved.

- (iii) divide completed surveys among class groups and record results on tally sheets.
- (iv) present quantified results as percentages
- (v) illustrate the results with histograms, pie charts, etc.
- (vi) use information and communication technology to present the results.
- (vii) compare results where possible with results of the National Survey on the Environment 2000 or 2003 from the Department of the Environment, Heritage and Local Government.





CYCLING: A SUSTAINABLE FORM OF TRANSPORT

—
background information



TYPES OF SURVEY QUESTIONS

Closed questions

Comprehensive categories are given and answer is circled/ticked. Answers are easy to quantify.

Semi-closed questions

Alternatives are provided, and respondents can offer new variables.

Open questions

Lines or spaces are provided for answers to be written. Answers are difficult to quantify.

Ranking/scaling questions

Responses can be provided either numerically (usually 1–5) or descriptively ('excellent' through to 'poor').

Attitudinal/opinion measures

Scale of opinion may range from 'strongly agree' to 'strongly disagree'.

Filter questions

May determine that a subset of subsequent questions is irrelevant.

