

Item 5.1 Annex C

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Part C - Ireland

Diversity and Flexibility (Feb 9, 2009)

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Ireland – Diversity

What are the factors that distinguish your country from many others?

Ireland's location on the western edge of the European continent is a very obvious driver of the diversity that distinguishes Ireland from other European countries.

History and religion, climate and geology - which themselves have all been influenced by that physical location – have also played an important part in the development of the modern state. These factors have shaped economic and social development and the evolution of governance practices including environmental protection and management.

Environmental Governance

Policy direction is split across a number of players. Central government consists of 15 departments and, while many environmental policy functions are managed within the Department of Environment, Heritage and Local Government, responsibility for some significant environmental issues (e.g. climate change) is divided across several government departments, including Department of Transport, Department of Agriculture, Fisheries and Food, and the Department of Communications, Energy and Natural Resources. The implementation of national policy often falls under the remit of local government (i.e. Local Authorities). Local Authorities have responsibility for local development and waste management planning, as well as the enforcement of environmental regulations. The Environmental Protection Agency is a statutory body responsible for protecting the environment, including the licensing and enforcement of activities with the potential to cause serious pollution.

Geology and Climate

Ireland's geology and climate - integral elements of environmental protection planning - have very specific characteristics. For example, groundwater is particularly prone to pollution as a large portion of the country has karst limestone bedrock. Like elsewhere in Europe the country is facing an increased frequency of extreme weather events attributable to climate change, such as flooding. With 65% of the population living within 10 kilometres of the coast these events will pose significant challenges, especially as many of the houses built during the past decade were neither designed nor located with cognisance of the climate change impacts.

What have been the major societal developments over the last 30 years compared with the previous 30?

Ireland's image, at home and abroad, as a clean, green island of a '1,000 welcomes' has weathered a quarter century of spectacular, sometimes bewildering, change.

Beginning with membership of the EU in 1973 and culminating in the last decade and a half of 'tiger economics' almost every aspect of Irish social and economic life has been challenged.

Ireland's location as the Atlantic coast's gateway to Europe saw it perfectly placed to ride the waves of globalisation washing in towards Europe. A young, well-educated population, liberal corporate taxation and EU structural funds helped propel the Irish economy from dependence on agriculture and tourism to the cutting edge of technology and pharmaceuticals. An upsurge in 'business' resulted in a huge rise in living standards and expendable income reflected most dramatically in home and car ownership.

What are the main drivers of environmental pressures and how do these contribute to multiple impacts on people and the natural environment?

For now, the effects of the economic boom are still the main cause of environmental pressure in Ireland. Along with full employment, bulging exchequer returns and net immigration, the boom years brought specific environmental pressures most notably from large scale property development and an upsurge in private car ownership.

Indeed, the so called 'property boom' has defined the past 20 years of Irish history: socially, economically, politically and environmentally and offers a good insight into 'modern' Ireland's environmental pressure points.

In the 25 years between 1970 and 1995 an average of 23,000 new homes were constructed in Ireland every year. In the ten years between 1996 and 2007 an average of 60,000 homes were constructed per year, peaking with 93,000 in 2006. Approximately 0.5 million new residential addresses were registered across the country since 2001, as illustrated in Figure X.

The origins of the boom, the manner in which it evolved, as well as how it was managed all have circumstances that are peculiar to Ireland, including a strong cultural preference towards home (particularly house) ownership, a population peak in the early 1980s and strong inward migration.

The Irish population's close connection to the land (a significant majority of the population are within two generations of having migrated from the land) drives the tradition of dispersed housing across the landscape, which has major implications for environmental service provision, transport and land use change.

Transport

Transport emissions of greenhouse gases in Ireland increased by 170% between 1990 and 2006. The dispersed nature of housing development and the reliance on the car is a major contributory factor. With limited viable options for sustainable transport, especially in rural areas, greenhouse gas emissions from transport will continue to be an intractable problem.

Possible Link: New York Times article on TERM report and Dublin

http://www.nytimes.com/2007/01/07/world/europe/07cars.html?_r=1&scp=4&sq=Dublin%20Copenhagen&st=cse

Environmental Services

The dramatic population growth of 17% over the 1996-2006 period, which was five times the EU average, put significant strain on provision of environmental services. In many urban areas capacity at existing drinking water and wastewater treatment facilities became rapidly overwhelmed. Rural households to a large extent rely on private provision of such services creating significant difficulties for the prevention of

environmental pollution. A dispersed population across sparsely populated areas poses significant problems for the provision of affordable waste management services.

Land Use

Ireland has experienced a relatively high rate of land use change since 1990. While agriculture is the main land use, within the last decade 'artificial' land (i.e. lands used for residential, industrial, commercial purposes, etc) has increased by over 20%. Land use change is predominantly from agricultural uses into residential and to a lesser extent commercial development. Though manufacturing industry is experiencing continual decline due to competitiveness pressures from abroad, the services sector is expanding its share and scale.

Agriculture

From having a very strong farming background, agriculture in Ireland now only accounts for around 3% of GDP, compared to 7% in 1995. The number of farms in Ireland declined by 37% between 1980 and 2000, most of which were family owned and operated. Care for the environment has become increasingly important for Irish agriculture, so that the Department of Agriculture, Fisheries and Food now operates a number of environmental measures. These measures include the Rural Environment Protection Scheme (REPS), the Farm Waste Management Scheme and the Dairy Hygiene Scheme. Similar to elsewhere in Europe, tillage farmers have diversified into the cultivation of energy crops. However the scale of renewable energy crop production is unlikely to raise major food-energy sustainability concerns. The economic profitability of energy crop production, even allowing for a financial subsidy of €45/ha, is limited.

Tourism

Tourism in Ireland is extensive: for the first time in 1994, the number of overseas tourists exceeded the population of Ireland which was almost 3.7 million at the time. In 2006, overseas tourist visits to Ireland increased to an estimated 7.4m, resulting in foreign exchange earnings of €4.7bn. That year, the tourism and hospitality sector supported 12% of jobs in Ireland.

Ireland's tourist industry is strongly tied to the quality of the environment and the country's marketing efforts centre around a clean, green image. Thus, the application of environmental policies has considerable implications for the future sustainable

development and growth of the industry. There remain a number of areas in which management is insufficient in balancing conflicting resource usage. An example is the lack of a national policy on Integrated Coastal Zone Management.

While tourism undoubtedly has a number of negative environmental impacts, it can be difficult to separate the effect of this industry from broader economic activity. For example, water pollution has, among other things, been attributed to agricultural run-off, discharge of waste or contamination from septic tanks.

What are the foreseen main developments in coming decades that could be expected to contribute most to future environmental pressures?

Ireland has made progress in a number of important respects over recent years, most notably in connection with certain emissions to air, waste management, and improvements in public transport. The success of the producer responsibility initiatives on packaging and on waste electrical goods (WEEE) and the continued growth in general recycling show that the public do respond when given the necessary information and supports.

However, there has been considerably less success in a number of other environmental areas as evidenced by the key environmental challenges we have identified (see: key challenges section).

The four main environmental challenges for Ireland in the short term are:

- Limiting and adapting to climate change
- Reversing environmental degradation – particularly in relation to water pollution and the conservation status of habitats
- Mainstreaming environmental considerations across all sectors of the economy
- Complying with environmental legislation and agreements

Projections for environmental pressures, including waste generation and emissions to air are now available for Ireland. This allows us to predict what the future could look like unless significant policy actions are taken now. For example:

- Under the most favourable scenario, Ireland's greenhouse gas emissions will exceed the proposed reduction target for 2020 by seven million tonnes;
- The biodegradable municipal waste diversion targets for 2016 will be missed by 800,000 tonnes. The maximum quantity of biodegradable municipal waste allowed to be landfilled in 2016 and beyond, under the EU Landfill Directive, is 451,000 tonnes;
- Emissions of nitrogen oxides, currently well above the 2010 ceiling, are expected to remain high, mainly due to the continued growth in car transport.

There is a need for continued research to better understand these issues, and for technological development to provide a means to address them. For this reason there is a strong commitment to environmental research over the next six years.

Ireland's economic drama is entering a new phase as the first decade of this century draws to a close and the environmental effects of an island economy in a down swing will take some time to evaluate. Keeping a clear focus on the environment during economic turbulence will be a key challenge.

Flexibility

Three examples for possible inclusion as flexibility topics for Ireland are listed below:

Irish Sustainable Development Model (ISus)

Most environmental assessments are retrospective assessments of environmental quality. These assessments critically inform decision making both within environmental policy and elsewhere. ISus adds a new dimension to environmental decision-making, as it provides the capacity to project future environmental emissions. ISus models how economic and social activity across the economy and society affects waste generation and emissions of potential pollutants. The model is linked to a macroeconomic model capable of forecasting economic activity thus enabling forecasts of environmental emissions. A benefit of being able to project environmental emissions is that it helps identify future pressure points on the environment, some of which may not be obvious or known, and thereby highlight the need for action. The ISus model is also capable of scenario analysis to highlight the environmental implications of various measures in order to better inform decisions that affect the environment.

Waste Electrical and Electronic Equipment (WEEE) in Ireland

The WEEE Directive has been particularly successful in Ireland in the recovery of waste electronic and electrical equipment. The Irish WEEE recycling scheme came into effect during August 2005. Between 2005 and 2007, 1.3 million large domestic appliances were recycled, while in 2007 alone over 6.7 million units of household WEEE were recycled. In 2007 an average of 8.7 kg/person of household WEEE was recycled, which is more than double the 2008 target of 4 kg/person. The high level of recycling has enabled the reduction in the Environmental Management Costs (EMCs), which are the fees that fund the recycling scheme. The Irish WEEE scheme includes a number of producer compliance schemes, the obligation of retailers to accept WEEE on a one-for-one basis when new goods are being purchased, and an obligation on local authorities to accept free of charge all household WEEE deposited at their collection points.

Climate Change in Ireland

Achieving climate change policy targets is a challenge for all countries but circumstances surrounding transport and agriculture within Ireland pose a significant challenge for achieving the Irish component of the greenhouse gas reduction targets.

The agriculture and transport sectors account for almost half of Irish greenhouse gas emissions. The high level of transport emissions is partly due to the reliance on private cars but the dispersed nature of household settlement in rural and urban areas will also make it particularly difficult to provide quality public transport alternatives. The high share of agriculture in national greenhouse gas emissions is due to the specialisation in livestock and dairy production considerably in excess of domestic needs. For instance, Irish self-sufficiency in beef production is 675%, sheep meat production 406%, butter production 1054% and cheese production 354%. While the value of the export markets in these commodities is important for the economy their production has significant implications for environmental emissions. However, it is unclear that reduced Irish production of these commodities will achieve lower associated global environmental emissions.