



Framework Convention on Climate Change

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EXECUTIVE SUMMARY OF THE NATIONAL COMMUNICATION OF

# IRELAND

submitted under Articles 4 and 12 of the United Nations Framework Convention on Climate Change

In accordance with decision 9/2 of the Intergovernmental Negotiating Committee of the Framework Convention on Climate Change (INC/FCCC), the interim secretariat is to make available, in the official languages of the United Nations, the executive summaries of the national communications submitted by Annex I Parties.

Note: Executive summaries of national communications issued prior to the first session of the Conference of the Parties bear the symbol A/AC.237/NC/\_\_\_.

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Copies of the national communication of Ireland can be obtained from:

Department of the Environment Environment International Section Custom House Dublin 1 Fax No. (353 1) 874 2423

## Introduction

1. Ireland signed the United Nations Framework Convention on Climate Change in Rio de Janeiro in June 1992 and ratified the Convention in April 1994. The Convention places a particular responsibility on developed countries to adopt policies and measures designed to mitigate climate change by limiting man-made emissions of greenhouse gases. It acknowledges, however, that within the developed countries, there will be differences in starting points and approaches, economic structures and resource bases and that there is a need for equitable and appropriate contributions as between different developed countries to the overall global effort.

### European Union policy on climate change

2. Ireland is a member of the European Union (EU). The EU also signed the Convention in June 1992 and approved it in December 1993. The EU is committed to stabilizing carbon dioxide  $(CO_2)$  emissions in the Union as a whole at 1990 levels by the year 2000 and all member States are involved in the achievement of this objective. Like the Climate Change Convention, EU policy also recognizes that a number of member States, including Ireland, will need targets and measures which will accommodate necessary economic growth.

### Climate Change - CO<sub>2</sub> Abatement Strategy

3. Within the framework of overall EU policy on climate change, Ireland launched its "Climate Change -  $CO_2$  Abatement Strategy" in June 1993. This strategy includes a programme of measures in the areas of energy conservation, fuel use, transport, waste management and afforestation designed to limit the levels of carbon in the atmosphere and to improve the energy efficiency of our economy.

4. Ireland's ability to reduce  $CO_2$  emissions, which is the principal man-made emission implicated in climate change, is restricted due to a number of structural factors. These include increased energy demand from economic expansion, reliance on peat, a carbon intensive fuel source, for about 14 per cent of our energy needs, our already high use of natural gas and the absence of a nuclear energy option.

5. Despite these structural factors, Ireland's  $CO_2$  abatement strategy is based on the objective of limiting  $CO_2$  emissions so as not to exceed 36,988 kilotonnes of  $CO_2$  in the year 2000. This would represent an increase of 20 per cent above 1990 levels, or an increase of 11 per cent if account is taken of increased carbon sinks capacity. Since a continuation of

existing policies would indicate an increase greater than this, the achievement of the 20 per cent target will require a cooperative effort on the part of all the different sectors involved; from energy producers to industrial and commercial consumers to private citizens.

## Energy

6. Energy policy can have a major impact on limiting  $CO_2$  emissions. Within this sector a number of programmes are underway including:

(a) The ESB (Ireland's national electric utility) are pursuing an active policy to limit the growth in demand for electricity. Demand Side Management measures are being pursued to promote the more efficient use of energy by consumers in the domestic, industrial and commercial sectors. The intention is to manage load growth around the level of 3 per cent per annum while still catering for national economic expansion. These initiatives at a conservative estimate, should limit  $CO_2$  emissions by 0.27 million tonnes of carbon (MTC) by 2000 and will also result in significant savings to customers. Improved maintenance and operation standards in order to improve efficiency are also being undertaken by the ESB.

(b) A significant amount of energy is used to heat buildings. Insulation standards incorporated in the building regulations (1991) for new buildings are expected to reduce  $CO_2$  emissions from this source by 2 per cent by 2000.

(c) An enhanced energy conservation programme in all sectors, with assistance from EU structural funds, will be operated through a new energy body, the Irish Energy Centre.

(d) Initiatives under the EU SAVE (measures to improve energy efficiency) and ALTENER (measures to promote renewable energy) programmes will encourage the limitation of  $CO_2$  emissions. Investigations are already under way into hydroelectricity, wind, wave, solar energies and energy crops as viable sources of renewable energy.

(e) The Irish Government is currently considering a proposal for a new 120 MW peat-fired power station, which would employ state of the art technology. This station, when combined with the phased decommissioning of the oldest and least efficient peat-fired units, would reduce the rate of carbon emissions from peat plants from 0.43 tonnes of carbon per megawatt hour in 1990 to 0.39 t C/MWh in the year 2000. In the interim, Bord na Mona (the national peat development company) is attempting, through research and development, to improve conversion efficiencies.

(f) Fuel switching (beneficial for  $CO_2$  reduction) will be promoted by the continued extension of natural gas in the residential and industrial sectors, backed up by the new pipeline from the UK. In addition, a competitive scheme to secure an additional 75 MW of electricity from alternative energy sources before 1997 was introduced in April 1994.

### Transport

7. Transport is a significant source of  $CO_2$  emissions and measures in this area will play a key role in containing overall national  $CO_2$  emissions.

8. The largest concentration of traffic is in the Greater Dublin area, where the principal objective is to improve public transport and reduce traffic congestion. The Dublin Transportation Initiative is developing a strategy for this purpose which takes full account of environmental impact factors. Arising from this strategy, provision has been made in the National Development Plan 1994-1999 and the Operational Programme on Transport for major investment in improved public transport and traffic management which will provide a greatly enhanced environment in the Dublin area. The current road investment proposals for Dublin are concentrated on the provision of a ring road around the city and the development is planned along the city quays and the canal ring and apart from a small number of projects which are under construction/at an advanced stage of preparation, there are no further plans for major urban road investment in the centre city.

9. Dublin Bus is planning new services specifically to compete with the car in Dublin city. New high-specification energy-efficient buses are to be used on the new services and in the fleet generally. The National Development Plan and Operational Programme on Transport include a substantial renewal and development programme for the mainline railways involving the provision of modern rolling stock, track renewal and new signalling systems.

10. Because of the dispersed nature of Ireland's rural population, transport needs in rural areas will continue to be met primarily by private transport. Public transport links between and within the principal urban centres will be improved as resources permit.

11. The planned extension of the vehicle-testing scheme to light goods vehicles and private cars is also expected to have an environmental benefit as the maintenance of engines in good running order should contain emissions. Longer term benefits will come from the development of more energy efficient vehicles; the EU is considering measures to support and accelerate this development.

## Waste

12. The decay of waste containing carbon results in emissions to the atmosphere of methane ( $CH_4$ ) and to a lesser extent  $CO_2$ . The reduction of the volume of waste for final disposal is, therefore, of great importance and in this regard the Department of the Environment has recently published a recycling strategy for Ireland.

13. Two local authorities, Fingal County Council and Cork Corporation, are examining the potential of recovering and using methane from landfill sites. Other local authorities have been looking at the potential of using methane from sewage treatment plants.

## Afforestation

14. Green plants act as a sink or trap for  $CO_2$ , thereby reducing the  $CO_2$  content of the atmosphere. As Ireland is the least forested area within the EU, it is clear that greater afforestation has the potential to make a significant and cost effective contribution to our climate change strategy.

15. In recent years there has been a steady increase in the number of new areas planted, both by the public and private sectors. The Government's annual target for planting (afforestation and reafforestation) is 30,000 hectares. The Irish Programme for Government gives a commitment to maintain and build on this policy up to the year 2000. The programme is estimated to increase  $CO_2$  absorption capacity by 0.8 MTC by the end of the decade. This will provide a substantial counter balance to the expected increase in carbon emissions over the same period.

## Research

16. All of the aforementioned measures are backed up by an ongoing programme of research, development and demonstration. Policy is geared towards optimizing technology for the improvement of energy efficiency, the use of renewable energy sources and the development of cleaner technology.

17. At United Nations level, Ireland is a member of the Intergovernmental Panel on Climate Change (IPCC) and Irish scientists participate in various programmes on climate related research activities. At EU level, Irish enterprises and institutions actively participate in the Community's energy programmes JOULE and THERMIE. The EU STRIDE programme is promoting research in the forestry area. The national Environmental Protection Agency also has a major role in preparing environmental research programmes and the co-ordination of such research.

18. The Energy Policy and Environment Policy Research Centres at the Economic and Social Research Institute (ESRI) will also carry out research on economic aspects of the interaction between energy and the environment.

### Vulnerability Assessment

19. In 1991 the Department of the Environment published a series of studies on the impact of possible climate change for Ireland. These studies covered a number of areas including agriculture, forestry and sea-level changes. The studies were republished in April 1994.

## FINANCIAL MECHANISM OF THE CONVENTION

20. Ireland has become a participant in the Global Environment Facility and will make four annual contributions of  $\pounds$ 425,000.

### **INVENTORIES OF GREENHOUSE GASES**

21. The total (net) national emissions of greenhouse gases in 1990, together with projections for the year 2000, are as outlined below. Data on bunkers for each of those years are also provided in brackets.

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>2</sub>	СО	NMWOC
1990	30719	795850	42280	114610	428980	196570
(Bunkers)	(1172)	(100)	(160)	(5345)	(2187)	(364)
2000	36988	798660	43680	105140	321940	171400
(Bunkers)	(1535)	(0)	(0)	(7520)	(3070)	(530)

(Kilotonnes for CO<sub>2</sub>, tonnes for other gases)

### CONCLUSION

22. An Interdepartmental Coordinating Group, chaired by the Department of the Environment, is overseeing the implementation of the  $CO_2$  abatement strategy.

23. The Department of the Environment and the Department of Transport, Energy and Communications have taken steps to increase the public awareness of climate change matters and to promote energy conservation. Further work will be undertaken in this area as resources and opportunities permit.

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