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**SUMMARY**

of the

**REPORT ON THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION  
OF IRELAND**

of

**IRELAND**

(The full text of the report (in English only) is contained in document FCCC/IDR.1/IRE)

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## Summary<sup>1</sup>

1. The in-depth review was carried out between January and August 1996 and included a visit to Dublin from 29 January to 2 February 1996. The review team included experts from Kenya, Bulgaria and Norway.

2. Ireland has experienced very high growth rates of gross national product in the 1990s, an average rate of approximately 4.5 per cent being expected for this decade, bringing economic growth to a historical high. This growth trend is enabling Ireland to approach steadily the average per capita income levels of its European Union (EU) partners. Ireland's convergence process towards EU economic standards has been accompanied by changes in the structure of the economy. This structural change, coupled with a sharp increase in private consumption, inevitably impacts on total energy requirements. Given its island location and limited endowment of energy resources, Ireland's main energy policy goals are to ensure security of supply, reduce dependence on imported fuel, improve energy efficiency in all economic sectors and develop its indigenous energy sources, mainly offshore natural gas and peat.

3. Natural gas is a relatively new energy source in the Irish market. It is however a commercially competitive energy carrier, with oil being its main competitor. Further growth in the use of natural gas, partly at the expense of more carbon-intensive alternatives, is expected to contribute significantly to a limitation in the growth in carbon dioxide (CO<sub>2</sub>) emissions. Although dependence on imported oil and coal for total energy requirements is not expected to be reduced, natural gas is anticipated to have an increasing role in electricity production and in the residential heating market.

4. Due to the predominance of coal, peat and oil in the primary fuel mix, and limited non-fossil fuel generating capacity, Ireland's energy-related CO<sub>2</sub> emissions per unit of gross domestic product are considerably higher than both the OECD and the EU averages. The level of energy-related CO<sub>2</sub> emissions per capita equals that of the EU average. Most of the growth in emissions over the past few years has come from increased electricity production and the transport sector. There is no nuclear generating capacity in Ireland and peat represents approximately 14 per cent of total primary energy supply. Although this share is expected to decline to 9 per cent in 2000, it will remain the highest for this energy carrier in a country's energy balance among Annex I Parties.

5. Ireland is meeting its reporting commitments under the Convention and will play its part in fulfilling the EU commitment to stabilize CO<sub>2</sub> emissions in the Community as a whole at 1990 levels by the year 2000. Within the framework of the overall EU policy on climate change, Ireland launched a national CO<sub>2</sub> abatement strategy in June 1993. Ireland's own CO<sub>2</sub>

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<sup>1</sup> In accordance with decision 2/CP.1 of the Conference of the Parties, the full draft of this report was communicated to the Government of Ireland, which had no further comments.

abatement strategy aims at limiting the growth in CO<sub>2</sub> emissions to 20 per cent over 1990 levels by the year 2000. During the review, the team was provided with a draft update of the national CO<sub>2</sub> abatement strategy, which greatly improved the level of information about the implementation of climate change policies and measures in the country. Ireland's development needs and its focus on energy security have so far led to the implementation of measures which are mostly "no-regrets" and voluntary in nature. Although these measures are expected to generate important results, additional measures leading to further limitation in greenhouse gas (GHG) emissions are either at an early stage of implementation or still under examination. Ireland's recent structural development has apparently involved some important gains in energy efficiency and indicated a possible decoupling of CO<sub>2</sub> emission trends and economic growth. This may lead to further limitations to the growth of CO<sub>2</sub> emissions at the national level and contribute positively to the achievement of the EU-wide CO<sub>2</sub> stabilization target.

6. National inventories were prepared using the standard CORINAIR<sup>2</sup> methodology and converted to the Intergovernmental Panel on Climate Change (IPCC) format. Emission levels are most reliable for CO<sub>2</sub> since they are derived from fuel combustion processes that are well understood and have been independently documented for years. For methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), however, emission estimates are far less reliable, both because of their inherent uncertainty and the fact that collectively they have never been documented to the level of detail requested by the IPCC inventory methodology. The team felt that GHG inventories were not always presented in a transparent way, owing to resource constraints.

7. During the review, considerable additional information was provided on Ireland's forests and its ongoing afforestation programme. Although Ireland is one of the least forested countries in the EU and does not seek to offset emissions exclusively through CO<sub>2</sub> uptake in its forests, it would be important to report on 1990 emissions and removals from this sector, as requested by the FCCC reporting guidelines. Furthermore, it is recommended that future projections be provided for the forestry sector. Ireland is also encouraged to report on emissions of other gases whenever these occur in the country, examples being sulphur hexafluoride (SF<sub>6</sub>) and hydrofluorocarbons (HFCs), and possibly perfluorocarbons (PFCs) from aluminium smelting.

8. Ireland is to be commended for establishing the Irish Energy Centre as a mechanism to promote energy conservation and energy efficiency improvements in the industrial, commercial and residential sectors. The Centre has a great potential to influence industry behaviour and consumers' choices and give support to future mitigation measures. It is charged with the task of coordinating and implementing the national energy conservation programme and of raising energy awareness. The team noted the renewed support by

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<sup>2</sup> CORINAIR is the component dealing with air emissions inventories of the European Community's CORINE (Coordinated Information System on the State of Natural Resources and the Environment).

departments concerned for existing energy conservation programmes, as well as Electricity Supply Board's (ESB) commitment to demand-side management (DSM) programmes.

9. Emission projections were based on standard regression models, without the use of macroeconomic and energy models. The team felt that additional resources could usefully be allocated to improve emission monitoring and modelling capacity. The review team recommended that estimation methods used and assumptions made in emission projections be clearly stated in the second communication in 1997. Additionally, the team encouraged the Government to consider reporting on a baseline ("without measures") scenario for 1990-2000. During the review, additional information was provided on the methodology used in the projections of CO<sub>2</sub> emissions based on national energy figures. The primary assumptions and methods used to estimate energy requirements in 2000 seem plausible and transparent. Revisions were made during the review regarding the allocation of energy requirements among the various sectors of the economy. Primary energy demand is expected to increase significantly in the electricity generation and transport sectors. It is expected to fall in the industrial, commercial and agricultural sectors and remain roughly stable in the residential sector. Based on information received during the visit on some early efficiency gains and recent further inroads of natural gas, it is estimated that the national CO<sub>2</sub> growth limitation target is within reach. Preliminary estimates indicate that CO<sub>2</sub> emissions may be increasing more slowly than originally expected, even though GDP grew faster than expected at the beginning of the decade.

10. Although vulnerability and adaptation of the country to climate change are not addressed in the national communication, relevant additional documentation was presented during the review. An assessment of the possible impacts of climate change in Ireland and the country's vulnerability were provided during the country visit. It showed that a rise in mean temperatures could have slight positive effects on Irish vegetation, with possible economic benefits. Coastal areas of the island were assumed to be the most vulnerable parts of the country.

11. The team noted with appreciation Ireland's long-term commitment to increase the ratio of official development assistance (ODA) to GNP to 0.7 per cent. In 1995, this ratio was 0.29 per cent. The team was informed of a commitment by the Irish Parliament to increase this ratio by 0.05 per cent annually. Ireland agreed to participate in the restructured Global Environment Facility (GEF) in 1994. It announced that a contribution of £Ir 1.64 million will be made over four years and subsequently made its first contribution of £Ir 425,000 in 1996.

12. During the review, additional information was provided on ongoing research activities in Ireland, including those of the Economic and Social Research Institute (ESRI) on the CO<sub>2</sub> abatement strategy, the main findings of which are listed in this report. The review team was also informed that efforts to raise public awareness had been mainly directed towards energy conservation and the improvement of end-use energy efficiency. The main tool used to reach the public has been the electronic media and annual Energy Awareness Weeks.

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