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#### **SUMMARY**

of the

# REPORT OF THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION

of

# **ROMANIA**

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

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Under Articles 4 and 12 of the Convention, Parties are required to prepare national communications on their implementation of the Convention. Guidelines for the preparation of national communications and the process for their review were agreed on by the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, by its decisions 9/2 and 10/1, and by the

Conference of the Parties, at its first session, by its decisions 2/CP.1 and 3/CP.1 (see FCCC/CP/1995/7/Add.1). In accordance with these decisions, a compilation and synthesis of the first 33 national communications from Annex I Parties was prepared (FCCC/CP/1996/12 and Add.1 and 2).

When reviewing the implementation of the Convention by Parties, the subsidiary bodies and the Conference of the Parties will have this report available to them in English as well as the summary of the report in the six official languages of the

United Nations. (These bodies will also have before them the executive summary of the first national communication of Romania and country-specific information drawn from a compilation and synthesis report covering all countries that have submitted national

### Summary<sup>1</sup>

- 1. The in-depth review of the first national communication of Romania was carried out between October 1996 and April 1997 and included a country visit by the review team to Bucharest from 7 to 11 October 1996. The team included experts from Egypt and the Netherlands.
- A central aspect of Romania's national context is its transition to a market economy. In this context, gross domestic product (GDP) dropped drastically between 1989 and 1990, as did emissions of greenhouse gases (GHGs). Romania has requested the flexibility provided for under Article 4.6 of the Convention in using 1989 as the base year instead of 1990, and this was granted by the Conference of the Parties (COP). The process of privatization is viewed as a potential tool for improving energy efficiency. Romania relies on external investment to help upgrade plant and equipment, but foreign investment has been lower than expected, despite the low labour costs. An environment strategy has recently been drawn up and approved by the Government, together with a national environmental action plan. A national climate change commission was set up in November 1996. Romania has no voluntary quantified target for the reduction of GHG emissions. Recent key environmental legislation includes the environmental law of December 1995, laying out fundamental principles. A number of sectoral strategies have been established, including an energy sector strategy containing an environmental component, forestry management, and transport, although some of these strategies are still under development, and not yet approved by the Government. Total primary energy supply amounted to 39 million metric tonnes of oil equivalent (Mtoe) in 1994 (compared to 67 Mtoe in 1989), of which 43 per cent was composed of natural gas, 28 per cent oil, 25 per cent coal, and 3 per cent domestically produced hydroelectric power. The building of a nuclear power plant is nearing completion. Per capita emissions of carbon dioxide (CO<sub>2</sub>) were approximately 8.6 tonnes in 1989, declining to 4.8 tonnes in 1993; the average for countries of the Organisation for Economic Co-operation and Development (OECD) was about 12 tonnes in 1990.
- 3. In the national communication or as additional information obtained during the indepth review, inventory data were provided on the main GHGs carbon dioxide, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), and the precursors nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and non-methane volatile organic compounds (NMVOCs), for the years 1989, 1990 and 1991. In 1989, in Romania, 198,479 Gg of CO<sub>2</sub> were emitted and 2,925 Gg removed through sequestration. In that year, 2,328 Gg of CH<sub>4</sub> were emitted, as were 67 Gg of N<sub>2</sub>O, 553 Gg of NO<sub>x</sub>, 2,337 Gg of CO and 529 Gg of NMVOCs. The GHG inventory is based on the Guidelines for National Greenhouse Gas Inventories adopted by the Intergovernmental Panel on Climate Change (IPCC) and default emissions factors, although

<sup>&</sup>lt;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 Romania, which had no further comments.

CORINAIR<sup>2</sup> emission factors are also used where such factors are missing in the IPCC guidelines. Divergences from the IPCC methodology include: the absence of emissions from industrial solid and liquid wastes (owing to a lack of reliable data); reporting of emissions from international bunkers together with those from the transport sector; inclusion of the emissions from the cement and lime industries with the emissions from fuel combustion; and division of emissions from motor fuels into the industrial, household and transport sectors, resulting in low CO<sub>2</sub> emissions from the transport sector (about 4 per cent of the total).

- The information on policies and measures in the communication was not detailed and 4. some of the recommendations in the reporting guidelines were not followed. With regard to the energy sector, legislation concerning electricity is under preparation which aims at clarifying the role of the different actors in this sector. Preliminary discussions have also started on a special law on energy conservation, which might contain, inter alia, fiscal incentives for energy conservation. Revenue from an 18 per cent levy on electricity and heat is currently being used largely to fund retrofit programmes undertaken by the electricity utility, RENEL. A programme on renewable sources of energy conducted before 1990 was reported not to have been very successful, although a draft law on renewable sources of energy has been prepared by the Agency for Energy Conservation (ARCE), containing, inter alia, provisions for financial and institutional support to independent power producers. A programme for the development of renewable energy is being carried out in the Ministry of Industries and Trade with support from the European Union (EU) PHARE programme. Work is being carried out at present on efficiency standards for boilers and some household electrical appliances, such as television sets. Energy efficiency standards and voluntary ecolabels are also used for refrigerators and washing machines.
- 5. The team recognized that, owing to the recent economic crisis in Romania, it will probably not be necessary to take measures in order to achieve the aim specified in the Convention to stabilize its emissions in 2000 at the level of 1989, the year utilized as a base year in Romania.
- 6. The national communication does not contain projections of GHGs, but a preliminary study on projections was made available to the team during the country visit. Under the "without measures" scenario in this study, emissions of CO<sub>2</sub> are expected to be lower in 2000 than in 1989, but will grow to reach this level in 2007/2008, and will continue to grow beyond that. Emissions of other GHGs are also expected to be higher than their 1989 levels in 2020. Under one of several "with measures" scenarios that were presented, Romania would reduce its CO<sub>2</sub> emissions as compared to the baseline scenario by 12.1 per cent in 2000, 34.4 per cent in 2010 and 48 per cent in 2020. The average cost of this alternative has been estimated at US\$ 1.63 per tonne of CO<sub>2</sub> reduction (not including transport and

<sup>&</sup>lt;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).

agriculture), and the total cost for the whole period estimated at US\$ 28 billion. It should be noted that these financial resources have not been secured.

- 7. A brief mention was made in the national communication of research activities, financed jointly by Romanian resources and under the vulnerability assessment component of the United States Country Studies Program, on the assessment of the expected impacts of climate change, including impacts on agriculture, forests and freshwater basins. These were elaborated on during the country visit, and possible topics for future research were identified. In the case of one study, several adaptation options were also analysed.
- 8. Several examples of bilateral and multilateral cooperation exist, such as the United States Country Studies Program, cooperation under the PHARE programme on renewable energy and a Global Environment Facility (GEF)/United Nations Development Programme (UNDP) project on energy efficiency improvement. In spite of these examples, financial constraints may be a limiting factor to the carrying out of studies and implementation of projects and policies in Romania. At the time of the country visit, there were no formal activities implemented jointly under the pilot phase (AIJ), although Romania intended to engage in such activities in the future. In March 1997, a letter of intent was signed by Romania and the Netherlands concerning the improvement of the energy efficiency of several power plants in Romania, as an AIJ project.
- 9. During the country visit, the information in the national communication on research and systematic observation was elaborated on by experts from several government institutes. There is a strong tradition of research in climate-related fields, and data collection and monitoring have been conducted since 1884. Romania also participates in international efforts, including the World Climate Research Programme, the IPCC and the International Geosphere-Biosphere Programme.
- 10. The development of education on environmental issues has been listed in the first national communication as one of Romania's short-term objectives, to be achieved by including these issues in all levels of education and by facilitating public access to such information. An environmental information and documentation office has developed a bibliographic database of publications on environmental issues. Within the PHARE project of the EU, a public awareness campaign on energy efficiency and the environment is under way. In universities work on climatology and climate modelling is being conducted in cooperation with the World Meteorological Organization (WMO).

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