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**Summary**  
**of the**  
**Report on the in-depth review of the national communication**  
**of**  
**HUNGARY**

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

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## Summary <sup>1</sup>

1. Hungary ratified the Convention on 24 February 1994 and its national communication was received on 22 November 1994. The in-depth review of the national communication was carried out from November 1996 to May 1997 and included a visit by the review team from 25 to 29 November 1996. The team included experts from Fiji, Romania, and the Organization for Economic Co-operation and Development (OECD). The team found that the communication responded to the main requirements of the reporting guidelines. The additional information and material provided to the review team substantially improved the understanding of national circumstances and at the same time enhanced the transparency of the communication.

2. The Hungarian economy has gone through major structural changes in its transition to a market economy since the late 1980s. Industrial production has fallen significantly. Also agricultural production has declined over the last 15 years but this relatively important sector still represents 15-20 per cent of gross domestic product (GDP). However, the decline in GDP seems to have come to a stop midway through the 1990s. The Government is pursuing a major and rapid privatization and deregulation policy, including in the energy sector. High priority is placed on bringing its legislation into line with that of the European Community in anticipation of possible membership in the future, and on establishing a legal framework to support a market economy. At the time of the visit Hungary was facing challenges of building and empowering institutions to implement and enforce the new laws.

3. At the time of the visit, the annual rate of inflation was estimated at 20-25 per cent and the real interest rates were around 6-8 per cent. The unemployment rate was above 10 per cent, and Hungary had a considerable foreign debt. There has been a steady effort to arrive at market-based prices for energy commodities, and prices of some of them (notably oil products) have for some years been derived from the world market price. This, combined with the effects of taxes, has brought them to the same level as in some OECD countries or even higher. Some sectors and commodities (notably electricity, gas and heat for certain consumer groups) were not yet fully market based at the time of the visit. Coal output has declined dramatically, but some production is still expected to remain competitive. Reserves of other fossil fuels are small, while some renewables may have greater potential despite being little utilized at present. Half of the electricity supply is based on nuclear power. The energy efficiency is believed to be 20-30 per cent below the level of other OECD countries.

4. The communication emphasized the flexibility allowed by the Convention (Article 4.6) to Parties with economies in transition, which Hungary is using specifically on the choice of base year, the availability and quality of projections and some inventory data. Hungary has chosen the average greenhouse gas (GHG) emission figures of years 1985 to 1987 as its base

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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 Hungarian Government, which had no further comments.

period figures in the inventory, but it also presented figures for the year 1990. In March 1997, figures for 1991 to 1994 were submitted as a supplement to the information presented in the First National Communication. In the base period, carbon dioxide (CO<sub>2</sub>) emissions were reported to be 84 million tons, which represents a per capita level well below the average for OECD countries; 8 tons versus 12 tons. The recession and the economic restructuring led to a sharp drop in CO<sub>2</sub> emissions which reached 59 millions tons in 1994. Hungary is committed to stabilizing national emissions of CO<sub>2</sub>, and the communication also made a reference in the preface to the commitment to stabilize greenhouse gas emissions.

5. Using the 1995 global warming potentials (GWP) derived by the Intergovernmental Panel on Climate Change (IPCC), the relative importance of CO<sub>2</sub> was 76 per cent, methane 21 per cent and nitrous oxide 3 per cent of the emissions in 1994, the last mentioned figure being low because of the low use of artificial fertilizers. Figures were also given for the indirect GHG carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and non-methane volatile organic compounds (NMVOC), but not for hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphurhexafluoride (SF<sub>6</sub>), emissions of which the team assume were small or zero in 1990. The CO<sub>2</sub> figures in the communication included emissions from bunker fuels and feedstocks. The lack of data for emissions from the waste sector for the base period and 1990 appeared to be the most important omission overall, for 1994 this sector contributed about 25 percent of the CH<sub>4</sub> emissions. These issues were transparently dealt with in the communication and explained by lack of appropriate methodologies, resources and background data. The additional documentation provided during the in-depth review threw further light on these issues and revised some previous estimates based on a more detailed assessment in line with the IPCC guidelines.

6. The team noted that the communication provided a broad overview of the energy conservation efforts as well as a description of management practices related to forests. Hungary has not established policies and measures motivated by climate change related to emissions from agriculture, waste and industrial processes, but other policies and measures have effects on these. The National Energy Efficiency Improvement and Energy Conservation Programme (NEEIECP), under which an action plan was approved in December 1995, was presented as an important framework to achieve substantial reductions in GHG emissions. The emphasis is on enhancing public awareness, improving energy efficiency on the demand side and better management of the transport sector. However, implementation has been severely hampered by lack of public funding, which is particularly important given the high inflation and interest rates. The team noted the important contribution of funds and expertise made through bilateral and multilateral projects, particularly with the European Community.

7. The projections for the year 2000 in the communication covered emissions from energy sources as well as agricultural and fugitive sources of methane. The team noted that, although an appropriate approach had been used for energy projections, the results were to be considered very uncertain given the lack of relevant historical data as a base for projection models, as a result of the transition process. Despite the uncertainties and the possibility that

CO<sub>2</sub> emissions may have started to grow from around 1995, CO<sub>2</sub> emissions are expected to be significantly lower in 2000 than the average 1985-87 level and could even stay below the 1990 level. The team noted in particular the uncertainty posed by the restructuring and deregulation of the energy sector. The communication projected methane emissions from agriculture and fugitive sources to decline by about 60 per cent overall, largely because of the decline in coal mining. The team noted that emissions from the waste sector are expected to rise if the levels of waste is increasing with rising incomes, but this could be offset by the introduction of waste minimization and treatment policies. Nitrous oxide emissions from fuel combustion, which represented two thirds of base year emissions, were projected to decline by up to one third, while the visit made clear that agricultural emissions were not expected to grow.

8. The team noted that Hungary is particularly vulnerable to climate change affecting the water supply. It does not have an explicit and comprehensive adaptation strategy, although some ongoing activities, often at the research and development stage, are highly relevant. These issues were not covered in the communication. Hungary reported on research and systematic observation carried out over many years in the climatic, meteorological and ecological areas. However, public funding for research has been substantially reduced in the period of transition.

9. Many climate change related activities, both technical assessments and mitigation efforts, have taken place inside the framework of bilateral or multilateral international cooperation. This often provided funds and expertise to be used in Hungary, but Hungarian expertise is also utilized in cooperative efforts with other countries in transition as well as with international and regional institutions. The team noted that there are processes for involving non-governmental organizations (NGO) in implementing the Convention, and that a number of initiatives aim at improving public awareness.

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