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**SUMMARY**

**of the**

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

**of**

**GERMANY**

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

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

1. Germany ratified the Convention on 9 December 1993. Its national communication was received by the Secretariat on 28 September 1994. The in-depth review was carried out during the period from October 1995 to February 1997 and included a country visit by the team in November 1995.

2. Unification of the two parts of Germany in October 1990 had a major impact on both economic and social life. It also complicated the preparation of the first national communication due to the differences in the basic economic and statistical data. Germany is one of the leading economic powers of the world. The growth rate of its gross domestic products in 1990-1993 was 1.3 per cent per year and in 1993-1994 2.9 per cent per year. Its population in 1990 was 79.4 million, and in 1994 81.4 million.

3. In 1990, per capita energy-related emissions of carbon dioxide (CO<sub>2</sub>) in Germany were about 12.8 tonnes, compared to an average of 8.9 tonnes for countries of the European Community and 11.8 tonnes for countries members of the Organisation for Economic Co-operation and Development. In 1994 this indicator for Germany decreased to 11.0 tonnes. Germany has limited reserves of fossil fuel and it imports significant quantities of oil and natural gas; in total it imports over 55 per cent of its primary energy. Coal plays an important role in the energy balance (its share in electricity production is still above 55 per cent), although in the period from 1990 to 1994 its production decreased from 121.8 to 81.0 million tonnes of oil equivalent. The coal industry is subsidized from the Federal budget and, because of social considerations, some subsidies will remain - on a lower level - at least until 2005.

4. In terms of 1994 Intergovernmental Panel on Climate Change global warming potentials CO<sub>2</sub> accounted in 1990 for about 82 per cent of total greenhouse gas (GHG) emissions, methane (CH<sub>4</sub>) for about 11 per cent, nitrous oxide (N<sub>2</sub>O) for around 5 per cent and other gases for about 1.5 per cent. The 1990 inventory shows that emissions of CO<sub>2</sub> (excluding land-use change and forestry) in Germany amounted to 1,014,155 Gg. Total CH<sub>4</sub> emissions in 1990 amounted to 5,682 Gg, of which 36.0 per cent came from livestock, 32.9 per cent from waste and 27.3 per cent from fugitive fuel emissions. In the period 1991-1994 emissions of CH<sub>4</sub> decreased by about 8 per cent.

5. The national target is to reduce carbon dioxide (CO<sub>2</sub>) emissions by 25 per cent by the year 2005 in comparison to 1990. There is no national target for other GHGs but it is expected that the measures implemented under the CO<sub>2</sub> reduction programme will cut emissions of other GHGs (including chlorofluorocarbons, CFCs) back by 40 to 50 per cent by the year 2005 compared to 1990. Coordination of climate change related activities is

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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 Germany, which had no further comments.

entrusted to an interministerial working group established in 1990 and convened by the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety.

6. The main fields of action in the climate change programme are energy conservation, improving energy efficiency both on the supply and the demand side and fuel substitution. The proposed introduction of a CO<sub>2</sub>/energy tax aroused strong opposition from German industry, which proposed to take voluntary actions aimed at increasing energy efficiency and reducing GHG emissions, provided such a tax was not introduced. In March 1996 a declaration by German industry and trade on global warming prevention was made public and accepted by the Government. The declaration states that industry's target is a 20 per cent reduction of CO<sub>2</sub> emissions by 2005 relative to 1990 levels, and it also includes a monitoring component. It is expected that as a result of the implementation of the declaration CO<sub>2</sub> emissions from industry, private households and small-scale consumers could be reduced by 170 Mt (170,000 Gg) by the year 2005. As a result of the declaration, the Government has postponed adopting regulatory measures directly targeting the industrial sector.

7. Greater use of natural gas is seen as one way of reducing CO<sub>2</sub> emissions. To this end Germany undertook a number of projects and concluded agreements with foreign producers to increase supplies of natural gas to the country. Nuclear power is considered to make an important contribution to the avoidance of CO<sub>2</sub> emissions in Germany, obviating up to 150 million tonnes of these emissions per year. However, there were no plans to build new nuclear power plants at the time of the visit, and after reunification all nuclear power stations in the new Länder were shut down for safety reasons. One of the major challenges for the Federal Government is abatement of GHG emissions from the transport sector and a number of measures are under consideration. Germany is actively promoting renewable energy, although the share of renewable energy in the fuel mix for electricity generation remains small (about 0.5 per cent). The buildings sector is given special emphasis in Germany's climate programme, and is expected to be a major contributor to the achievement of the national target, with a planned reduction in energy use in buildings of 25 to 30 per cent by 2000 (and a reduction in CO<sub>2</sub> roughly equivalent to this). A number of Länder have initiated specific local climate protection and energy efficiency programmes. Conservation of existing forests is seen as a major way to preserve the removal capacity of this sink. Support for new afforestation has been improved considerably since 1991. Subsidies for afforestation have been provided since the 1970's. In addition to a programme of afforestation and forest management, the Federal Government introduced a number of wide-ranging measures for combatting new types of forest damage caused primarily by air pollution.

8. Emissions of GHGs other than CO<sub>2</sub> have in general been declining, mainly thanks to improvements in technological processes or implementation of regulatory measures. For example, catalytic destruction of N<sub>2</sub>O introduced at an adipic acid production facility slashed these emissions by 90 per cent at this source; emissions of tetrafluoromethane (CF<sub>4</sub>) and hexafluoroethane (C<sub>2</sub>F<sub>6</sub>) from aluminium production are expected to fall by half by the end of the decade.

9. It was acknowledged by the German authorities that "the measures taken so far within the framework of the CO<sub>2</sub> reduction programme do not suffice to achieve the CO<sub>2</sub> reduction target". The reduction of Germany's CO<sub>2</sub> emissions from 1990 to 1994 was mainly due to the significant decrease in industrial activity and closure of inefficient and polluting lignite-fuelled power plants as well as reconstruction of infrastructure in new Länder. CO<sub>2</sub> emissions in the old Länder in this period increased slightly (by about 2 per cent). The projections submitted to the secretariat after the country visit cover CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O and provide both "with measures" and "without measures" scenarios for the year 2000 in comparison to the 1990 baseline. The projections indicate that total CO<sub>2</sub> emissions are expected to decrease (compared to 1990) by 9.6 per cent in 2000, 10.2 per cent in 2005, 11.6 per cent in 2010 and 13.5 per cent in 2020. The projections for methane emissions indicate that, compared to the 1990 level, they will decline by about 30 per cent by the year 2000; by the year 2020 this decline could amount to about 50 per cent. The scenario for nitrous oxide indicates that total N<sub>2</sub>O emissions in Germany are projected to decrease by about 36 per cent by the year 2000 compared to 1990 and remain stable afterwards till the year 2020.

10. In 1991-1993 Germany made contributions of US\$ 147 million to the pilot phase of the Global Environment Facility. In the period from mid-1994 to mid-1997 it pledged to contribute another US\$ 240 million to the Facility. An additional amount of DM 5 million was allocated as direct financial assistance with respect to FCCC to a number of developing countries. Germany is actively promoting activities implemented jointly (AIJ) and is at present at the first stage of a pilot programme for AIJ with the aim of testing in practice the broadest spectrum of theoretically conceivable projects.

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