



Distr. GENERAL

FCCC/IDR.1(SUM)/NOR 4 July 1996

Original: ENGLISH

## **SUMMARY**

of the

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

of

## **NORWAY**

(The full text of the report (in English only) is contained in document FCCC/IDR.1/NOR)

Review team:
Katya Simeonova, Bulgaria
Luis Caceres Silva, Ecuador
Richard Begley, Australia
Fiona Mullins, OECD Secretariat
Lucas Assunção, UNFCCC secretariat, Coordinator

Also available on the World Wide Web (http://www.unep.ch/iucc.html)

## Summary<sup>1</sup>

- 1. The in-depth review of Norway was carried out between October 1995 and March 1996 and included a visit to Oslo from 23 to 27 October 1995. The review team included experts from Bulgaria, Ecuador, Australia and the secretariat of the Organisation for Economic Co-operation and Development (OECD).
- 2. The in-depth review greatly improved the transparency of the national communication and the team's understanding of Norway's economy and the challenges it faces regarding climate change. Norway is the second largest oil exporter in the world; virtually 100 per cent of its electricity demand is met from domestic hydroelectric power and it has become an increasingly large exporter of natural gas to other countries in Europe. The demand for gas in these countries is growing for economic and environmental reasons but also as a result of efforts by countries to diversify energy supply. Norway's natural gas production increased sharply in the late 1970's, but remained at a relatively stable level in the 1980s and 1990s. As a result of contracts for future deliveries, Norwegian gas production is expected to double by 2005, with a potential for further increases in the years to follow. Most of it is exported directly, with virtually no domestic use of natural gas in the mainland. The petroleum sector alone accounted for 22 per cent of Norway's CO<sub>2</sub> emissions in 1990.
- 3. Norway is to be commended for its early implementation in 1991 of a CO<sub>2</sub> tax which at present is applied to sources of 60 per cent of CO<sub>2</sub> emissions in the country. The tax is levied on gasoline, diesel, mineral oil, coke and coal at levels which are considerably higher than in other countries. The tax is also levied on gas and oil used in the extraction and transportation of petroleum products in the offshore sector. Non-fuel combustion process emissions from industry, fishing vessels and aviation are exempted from the tax. Process industries have been an important source of CO<sub>2</sub> emissions growth. Emissions of other greenhouse gas (GHG) from the process industries have, however, declined.
- 4. During the review, Norway provided additional material which considerably augments the information contained in its national communication. Subsequently in 1995, the Government submitted to the parliament a report on the Norwegian policy to mitigate climate change and reduce nitrogen oxides (NO<sub>x</sub>) emissions. This report (the "White Paper") stresses that the climate change problem can only be solved through binding international cooperation. It reiterates Norway's intention to maintain a catalytic role in international climate negotiations and its preparedness to take on its share of new commitments under the Convention. In addition, the White Paper introduces measures which enhance the national climate change policy programme. These include measures which aim at improving energy efficiency, promoting renewable energy sources, introducing voluntary agreements in industrial sectors not currently subject to the CO<sub>2</sub> tax, setting requirements for methane (CH<sub>4</sub>) recovery from landfills and promoting activities implemented jointly in the pilot phase. The White

<sup>&</sup>lt;sup>1</sup> In accordance with decision 2/CP.1 (see FCCC/CP/1995/7/Add.1), the full draft of this report was communicated to the Norwegian Government, which had no further comments.

Paper also reiterates the important principle of Norway's climate policy that all policies and measures at both national and international levels should be as cost-effective as possible.

- 5. The White Paper concludes that Norway will maintain its current high CO<sub>2</sub> tax level, while adopting a more comprehensive approach to combating climate change. The nationally established target to stabilize CO<sub>2</sub> emissions at 1989 levels by 2000 remains an important guiding principle for Norwegian climate policy. At the same time, a comprehensive approach to deal with the threat of climate change is adhered to. Emissions of greenhouse gases totalled 51,000 gigagrams (Gg) in CO<sub>2</sub> equivalents in 1994, which is roughly the same as in 1989 and 1990. This total level of emissions does not take into account the increased uptake of CO<sub>2</sub> stemming from the enhancement of sinks. Due to difficulties in estimating accurately the substantial enhancement in its sink capacity, Norway has for the time being elected not to deduct the CO<sub>2</sub> absorption from its total GHG emissions.
- 6. The projections in the White Paper indicate that total GHG emissions are expected to be 3 per cent higher in 2000 compared to 1990 levels, using 1994 global warming potential (GWP) figures and including the effects of the recently launched regulation on landfills. In spite of the current high CO<sub>2</sub> tax level and the strengthened measures introduced in the White Paper, Norway will not meet its national target with respect to the most important greenhouse gas, CO<sub>2</sub>. Rather, an increase of 16 per cent in CO<sub>2</sub> emissions by 2000 was expected at the time of the visit. This represented an upward revision compared to the 12 per cent increase projected in the national communication. Recently published projections now indicate a 14 per cent growth in CO<sub>2</sub> emissions by 2000. This update does not incorporate expected emissions from two planned gas-fired plants which may be in operation by 2000. None of the projections mentioned take into account Norway's sink capacity. Fifty per cent of the increase in CO<sub>2</sub> emissions between 1989 and 2000 is expected to come from the extraction and transportation of natural gas in the offshore sector. Norway's projections of future GHG emissions are transparent and were based on plausible assumptions, though the lack of estimates of the impacts of some individual measures is a major concern.
- 7. The team noted that there is still scope for  $CO_2$  emission reductions by improving energy efficiency in residential energy use, in commercial and official buildings, in industry and in petroleum production, and by promoting modal shift in the transport sector. Potential has also been identified for significant reductions in  $CH_4$ , perfluorocarbon (PFC) and sulphur hexafluoride (SF<sub>6</sub>) emissions compared to 1990 levels, although significant achievements have already been made regarding PFC emissions.
- 8. Norway's annual contribution to the Global Environment Facility (GEF) has amounted to NKr 55 million since the inception of GEF in 1991, covering both the pilot and the first phase. The team noted with appreciation that Norway has historically kept its official development assistance (ODA) contributions at a level equivalent to or above 1 per cent of gross domestic product and that in 1995 this ratio reached 1.17 per cent. It also noted that in 1996, the nominal level of ODA is expected to increase by 8 per cent.

- 9. Norway places strong emphasis on activities implemented jointly (AIJ) as a potential mechanism to identify cost-effective measures abroad as a supplement to domestic measures either in the industrial or in the transport sector. Norway is exploring cost-effective energy policies, for example through AIJ projects in Mexico and Poland, as well as options for verifying GHG reductions as a concrete contribution to the pilot phase of AIJ.
- 10. A <u>substantial amount of climate-related research</u> is carried out in Norway to improve understanding of atmospheric processes and the relationship between the oceans and the atmosphere and between economic processes and their impacts on climate change. Still, the most serious impact of climate change on Norway is expected to come through its possible effects on other more vulnerable countries through trade relations.
- 11. In Norway, climate change is clearly perceived as an environmental problem with potential economic costs associated with international inaction, but also to environmental benefits if international action is taken. No specific adaptation measures as such have been reported.

- - - - -