SANITATION COUNTRY PROFILE

NORWAY

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Decision-Making: The legislative framework for waste management is provided by the Pollution Control Act (1981), and the Product Control Act (1976). Emissions from industrial and other point sources are mainly restricted through a system of individual permits based on the principle of integrated pollution prevention and control under the Pollution Control Act. The Norwegian Pollution Control Authority controls compliance with discharge permits. It is also responsible for supervising the use of chemicals and chemicals in products. Chemicals in products are regulated by the Product Control Act, which was recently amended to introduce a statutory requirement to apply the substitution principle.

A. Basic Sanitation: The local authorities are responsible for providing sewage services to both commercial and private users. The Norwegian Pollution Control Authority (a subordinate agency of the Ministry of the Environment) is in charge of pollution prevention and waste management.

Relevant legislation includes the Water Resources Act (replaced the Watercourses Act in 2001), the Pollution Control Act (1981) and the Municipal Health Services Act (1982). The Planning and Building Act (1985) includes provisions on the coordination of national, county, and municipal activities, and provides a basis for decisions on the use and protection of the environment. Under the Act, municipalities may establish environmental goals for their water resources and the environment in the vicinity of these resources. Agricultural policy is designed to reduce water pollution.

B. Solid Wastes: The bodies primarily involved in decision-making in connection with solid wastes are the Ministry of the Environment and the Norwegian Pollution Control Authority. For information on Norway's waste management objectives, see under Hazardous Waste.

The Pollution Control Act lays down a general prohibition against littering and makes anyone who violates this responsible for whatever clean-up may be necessary. The Act gives the municipalities responsibility for collection and treatment of consumer waste. The municipalities' costs related to waste management are to be fully covered through waste management fees, and are encouraged to differentiate the fees when this will stimulate waste reduction and recovery. The Pollution Control Act makes industry responsible for production waste. Regulations on various types of waste and issues related to waste management have been laid down pursuant to one of both of the Pollution Control Act and the Product Control Act. As a result, deposit-return systems for different types of packaging, cooling equipment containing CFCs, end-of-life vehicles and tyres have been established. Regulations concerning the incineration and landfilling of waste have also been adopted.

A tax on final disposal of waste (landfilling or incineration without energy recovery) was introduced on 1 January 1999 to further promote waste prevention and recovery. In 2001, this tax was NOK 400 to 522 per tonne for landfilling of organic or mixed waste. For incineration, there is a basic tax of NOK 83 per tonne and a supplementary tax of up to NOK 250 per tonne. The supplementary tax is reduced according to the percentage of energy recovery. As a general rule, waste destined for material recovery is not subject to this tax. The structure of the tax on waste incineration is under review.

C. Hazardous Waste: Norway's waste management objectives were set out in a white paper published in 1999 (Report No. 8 (1999-2000) to the Storting"). The national targets are to limit the rate of increase in the quantity of waste generated to below the rate of economic growth, to reduce the quantity of waste delivered for final disposal to 25 per cent of the total quantity of waste generated by 2010, and to manage all hazardous waste appropriately, so that either it is recovered or sufficient treatment capacity is provided in Norway. The bodies primarily involved in decision-making in connection with these targets are the Ministry of the Environment and the Norwegian Pollution Control Authority (SFT). The responsibility for proper management of hazardous waste lies at the point where it originates. Any entity that generates

waste must have well thought out and documented routines and must ensure that the potential costs related to the management of its waste are covered.

The Regulations relating to Hazardous Waste were revised in 2002. The Regulations make anyone in possession of hazardous waste responsible for ensuring that it does not cause pollution or injury to human beings or animals. They also require enterprises that generate more than 1 kg of hazardous waste to deliver it to approved facilities at least once a year. Anyone who manages hazardous waste must obtain a permit. The regulations also require municipalities to ensure that they have adequate facilities for receiving hazardous waste from households and enterprises possessing small quantities of hazardous waste. Forty licensed operators collect most of Norway's hazardous waste. These operators have a central role in the management of hazardous waste. In recent years, special return systems have been established for lead accumulators, NiCd-batteries, waste oils and waste electrical and electronic equipment (WEEE).

D. Radioactive Waste: The targets and decision-making procedures for radioactive waste differ from those that apply to hazardous and solid waste. Norway does not have large-scale radioactive waste disposal problems since it has not large nuclear reactors. Radioactive materials are however used for research and for industrial and medical purposes. The location, construction and operation of nuclear installations are mainly regulated in Norway by three legal instruments: the Planning and Building Act, administered by the Ministry of the Environment; the Act on Radiation Protection and Use of Radiation, administered by the Ministry of Health and the Norwegian Radiation Protection Authority; and the Act relating to Nuclear Energy Activities, administered by the Ministry of Health and the Norwegian Radiation Protection Authority. The Act on Radiation Protection and Use of Radiation entered into force on 1 July 2000 and replaced the previous Radiation Protection Act from 1938. Regulations laid down pursuant to the earlier Radiation Protection Act are still in force, but are being reviewed and will be updated.

Programmes and Projects:
A. Basic Sanitation: Water supply and sanitation coverage is universal in Norway.

B. Solid Wastes: In 2001, A five-year programme with the aim of increasing recovery of wet organic waste has been established in collaboration with the waste and agricultural sectors. In addition several projects and programmes on solid and hazardous waste are being financed through more general sustainable development and integrated product policy initiatives under GRIP (the foundation for sustainable production and consumption). An example is the EcoBuild programme (Øko-bygg). The Ministry of the Environment also provides financial support for LOOP, a foundation established by several producer responsibility organizations.

C. Hazardous Wastes: See under Solid Waste.

D. Radioactive Wastes: See under Cooperation.

Status:
A. Basic Sanitation: Changes in industrial processes and waste reduction strategies initiated during the 1990s have reduced the heavy metal content of sewage sludge, and it is expected that systems for the collection and separation of electrical and electronic waste will substantially reduce emissions of heavy metals to water and air from waste.

B. Solid Wastes: Total waste generation (including household, industrial and hazardous waste) was 8.8 million tonnes in 2002 (6.5 million tonnes in 1998). The total quantity of household waste generated was 1.6 million tonnes (354 kg/capita) in 2002. Norway has set an ambitious target of a 75 per cent recovery rate (material or energy recovery) for all waste generated, to be reached by 2010. In 2002, around 63 per

cent of all waste generated was destined for material or energy recovery. Developments during the 1990s were very encouraging.

In 1992, about 20 per cent of all municipal waste was recovered; this figure rose to 47 per cent in 1999 and 67 per cent in 2002. In 1999, recovery rates for specific fractions were as follows: paper and cardboard, 44 per cent; wood waste, 30 per cent; wet organic waste, 36 per cent; plastics, 2 per cent; glass, 83 per cent;metals, around 80 per cent. At present, 37 per cent of waste is still delivered for final disposal, but the target is to reduce this to 25 per cent by 2010.

C. Hazardous Waste: Norway currently generates about 680 000 tonnes of hazardous waste per year. About 33 000 tonnes of this is dealt with outside the proper channels. To reduce this figure, it is essential to improve municipal collection systems. Norwegian Waste Management A/S (NOAH was established by the government and several industrial companies in 1991 to ensure that almost all types of hazardous waste generated in Norway can be dealt with within the country. The company is now privately owned. In 1999 about 50 000 tonnes of hazardous waste was exported, mainly for recovery.

D. Radioactive Waste: In Norway, radioactive waste is generated by the operation of two research reactors run by the Institute for Energy Technology (IFE) in Halden and Kjeller, and by the use of radionuclides in research, medicine and industry. Low and intermediate level waste is currently conditioned and stored at the Himdalen site, located not far from IFE's waste management facilities in Kjeller.

Capacity-Building, Education, Training and Awareness-Raising: The general education system gives a basis for understanding the need for more sustainable consumption, and trains a sufficient number of experts, but does not focus explicitly on this. The aim of the NGO green consumer network the Environmental Home Guard is to motivate and educate people to make environmentally friendly choices, reduce the use of non-renewable natural resources, reduce waste production, reduce energy consumption, and eliminate the use of harmful substances. The objective of the Nordic eco-labeling scheme is to provide consumers with guidance to help them choose the products and services that are least harmful to the environment.

A. Basic Sanitation: The ordinary educational system trains a sufficient number of experts and additional tuition is given by the management facilities. Several awareness raising programmes concerning prevention of pollution, conservation of biodiversity and sustainable use of watercourses have been undertaken the last years.

B. Solid and Hazardous Wastes: The ordinary educational system trains a sufficient number of experts and additional tuition is given by the management facilities. In addition government has some activities as detailed above (See under Programmes and Projects).

Information:
A. Basic Sanitation: Statistics Norway, The Norwegian Pollution Control Authority and the Confederation of Norwegian Business and Industry, are central sources of information at the national level.

B. Solid and Hazardous Wastes: Statistics Norway, The Norwegian Pollution Control Authority and the Confederation of Norwegian Business and Industry, are central sources of information at the national level. A cooperative information programme initiated by different producer responsibility organizations, LOOP, is supported financially by the Ministry of the Environment

C. Radioactive Wastes: The Norwegian Radiation Protection Authority has information in English on its website: http://www.nrpa.no/fpinternet/english/

Research and Technologies:
A. Basic Sanitation: Several institutions carry out research and provide scientific advice on issues related to water management, including the Norwegian Institute for Water Research, the Norwegian Institute for Nature Research, the Norwegian Institute of Public Health and the Norwegian Water Resources and Energy Directorate. Research is funded by the institutions themselves, the Research Council of Norway, the EU, or others. The Research Council is currently running some research programmes in the field of freshwater management. In addition all the universities have several research projects related to water management.

B. Solid and Hazardous Wastes: See under Programmes and Projects.

C. Radioactive Wastes: See under Status.

Financing:
A. Basic Sanitation: Water supplies and waste water treatment are financed through annual fees payable to the municipality by every household connected to a municipal plant. The average household pays approximately USD 200 for water supplies and USD 300 for sewage services (based on figures from 2002).

The government provided substantial financial support for the construction of new municipal waste water treatment plants in the period 1976-2001. New investments and maintenance of the water and sewage systems are funded through ordinary national and international markets and are paid back through user charges on water and sewage treatment.

B. Solid and Hazardous Wastes: All costs are carried by the entity where the costs arise. The polluter pays principle is applied. Some general subsidies are offered through programmes (see under Programmes). Subsidies to private or municipal investments are being phased out.

Cooperation:
A. Basic Sanitation: Norway allocates approximately 0.92 per cent of GNI to development co-operation, with the aim of reaching 1 per cent by 2005. In the period 1999-2002, an average of NOK 200 millions per year was used on water resources management and water supply and sanitation. This includes support for institutional development and infrastructure investments. Funds are channeled through bilateral co-operation, multilateral institutions and Norwegian, international and local NGOs.

B. Solid Wastes: The authorities in the Nordic countries cooperate closely on waste management. Norwegian authorities are participating in several working groups exchanging views and working towards achieving common positions and solutions to hazardous waste-related questions. Norway is actively involved in work under the Basel Convention and also participates in the OECD's waste management group. Norway is also represented on several EC expert groups on solid waste.

C. Hazardous Wastes: Norway signed the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in 1989. In 1990, it was one of the first countries to ratify the Convention. Norway also ratified the Basel ban amendment in 1997. The Norwegian Regulation on Transboundary Shipments (1994), which implements the Basel Convention, is the main Norwegian legislation regulating transboundary movements of hazardous wastes. Norway has established all procedures necessary to comply with the obligations in the Basel Convention.

Norway is particularly committed to the international efforts to reduce emissions of persistent organic pollutants (POPs) and other substances, and participates actively in international cooperation related to chemical safety. Such efforts are particularly important for the Arctic: 40 per cent of Norway's territory is within the Arctic Circle, where the Arctic Monitoring and Assessment Programme (AMAP) has shown that POPs deposition derives mainly from distant sources and long-range transport in the atmosphere. Norway was one of the first countries to ratify the 1998 Aarhus Protocols on POPs and heavy metals under the 1979 UN ECE-LRTAP Convention. In addition Norway has ratified both the Rotterdam and the Stockholm conventions. Norway was an active participant in the negotiations leading up to the 2001 UNEP Convention on POPs (Stockholm Convention), and is taking part in the work under the Intergovernmental Forum on Chemical Safety (IFCS). Norway supported the UNEP Governing Council 21 decisions on chemicals, and further development will be followed closely. Norway is in favour of ambitious and legally binding commitments and strengthening the role of UNEP in this area.

In Norway's opinion, increased technical and financial assistance to developing countries and countries with economies in transition is necessary to ensure the effective implementation of and compliance with the relevant international instruments. Norway has therefore taken an active part in the development of assistance mechanisms under the Stockholm Convention and is supportive of strengthening the role of GEF in chemical safety work at the global level. Environmental issues, and in particular chemical safety, are also given priority in Norway's development cooperation programmes.

D. Radioactive Wastes: Norway has been involved in nuclear safety projects in northwestern Russia since 1995. So far more than NOK 950 million (or about 120 million USD) has been allocated to projects under the government's Plan of Action for Nuclear Safety Issues. More than two-thirds of this has been spent on the management, storage and disposal of radioactive waste and spent nuclear fuel in northwestern Russia. The top priorities under the Plan of Action are the dismantling of multi-purpose nuclear submarines, the rehabilitation of nuclear sites such as Andreyev Bay and removal and replacement of strontium batteries in Russian lighthouses. Norway contributes to the G8 Global Partnership (Against the Spread of Weapons and Materials of Mass Destruction) and to the Northern Dimension Environmental Partnerhsip Support Fund (NDEP) with 100 million Euro and 10 million Euro respectively. In addition, Norwegian authorities are actively involved in the International Atomic Energy Agency (IAEA), the OSPAR Commission, the Nuclear Energy Agency of the OECD and other international fora/organisations.

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