SANITATION COUNTRY PROFILE

AUSTRIA

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Decision Making: Since 1992, the following legislation in the area of sustainable development entered into force: Ozone Act; Environmental Assistance Act; Environmental Information Act; Environment Accident Information Regulation; Federal Act on Environmental Impact Assessment and Citizens' Participation; Federal Act on the Establishment of an Environmental Board; Trade Regulation Act; Genetic Engineering Act; Fertilizers Act; Act on Eco-Auditors and Register of Sites; Packaging Regulation. Amendments have been added to the Regional Planning Acts, the Environmental Protection Acts and the Construction Codes of the Laender. Environmental impact assessments are usually used for projects, but not for programmes and policies. In 1994, the Federal Act on Environmental Impact Assessment and Citizens' Involvement (UVP Act) entered into force. The UVP Act calls for active participation of citizens in Environmental Impact Assessments and requires a concise approval procedure to be carried out by the Laender governments for instance in waste treatment plants, power plants, certain industrial plants and skiing areas. The Environment Council consisting of representatives of the political parties, organizations of the Social Partnership, as well as federal, provincial and local governments controls compliance with the UVP Act.

In 1995, Austria adopted its first national environmental plan (NUP). The planning process was supervised by a National Committee chaired by the Minister of Environment, and engaged all relevant actors within administration at the Federal and the provinces (Laender) level, industry and manufacturing, employer's association, unions, the agricultural sector as well as the scientific community and environmental organizations in developing environmental quality goals and corresponding proposals for implementation procedures to comply with these targets along a long-term gradient. The key objective of the National Environmental Plan was to define the necessary structural changes needed to integrate environmental concerns into all political levels of the society. Developing the NUP was a necessary first step designed to intensify the discussion on sustainable development. Moreover, the Austrian Council for Sustainable Development is actively promoting the integration of environment and development into decision-making.

In 2002, the Austrian Government adopted the National Strategy for Sustainable Development. Within the strategy framework, the Committee for a Sustainable Austria develops annual work programmes for the Council of Ministers in cooperation with the Austrian Laender (sustainability coordinators) and an expert panel (Forum for a Sustainable Austria). On a regular basis, the Committee exchanges information with the "Austrian Council for Sustainable Development" (ÖRNE), which is responsible for the preparing and coordinating the Austrian position with regard to international activities for sustainable development (e.g. UNCSD).

A. Basic Sanitation: Water supply, sewerage and wastewater treatment are as yet mainly non-profit community run enterprises. The main association of experts and professionals in the field of water management (including water pollution control, but not supply) is the Austrian Water and Waste Management Association (OeWAV). In the field of water supply the Austrian Gas and Water Association (OeVGW) is the relevant body. Other bodies (hydrography/hydrology; limnology) also exist. The professionals participating in all of these associations' work come from a wide range of all water-related activities, be they private or public. Some 500 of such associations exist and provide water, deal with sewerage treatment or waste management.

Austria welcomes the Global Rotterdam Convention on PIC and the installation of its Interim Chemical Review Committee until the Convention's entry-into-force. Austria also very much appreciates the successful completion of the POPs Protocol to the Geneva Convention and the Global Stockholm Convention on POPs.

Compensation mechanism for conservation and regeneration of natural resources have been introduced based on the principle of true cost under the precautionary and the polluter pays principle.

B. Solid Wastes: The Waste Management Act and a number of measures and regulations complementing it are to diminish the overall volume of waste generated in Austria. National policies to reduce waste and to promote material efficiency have been initiated in Austria. The Packaging Regulation, for example, requires certain percentages of packaging materials to be reused and recycled. At the local level, there are provincial sewage sludge regulations. In 1994, the Federal Act on Environmental Impact Assessment and Citizens' Involvement (UVP Act) entered into force. The UVP Act calls for active participation of citizens in Environmental Impact Assessments and requires a concise approval procedure to be carried out by the Laender governments for instance in waste treatment plants, among others. The strategies and measures outlined in the NUP (National Environmental Plan) are entry points of a number of concerted implementation efforts, including the Waste Management Strategy Plan.

The Plastics Labeling regulation and the PCP Regulation, for example, facilitate waste separation and collection for recycling purposes. A regulation has also been adopted for the reuse of construction debris and there is a Regulation on the Separate Collection of Biogenic Wastes. Emissions from thermal waste-treatment plants are subject to the Clean Air Regulation for Boiler Plants. The Landfill Regulation makes it obligatory for landfill sites to be built and operated according to the most recent state of art. There are several regulations supplementing the Waste Management Act. Enterprises with more than 100 employees, for example, have to appoint a waste management officer, and companies exceeding a certain size are obliged to draw up their own waste-management plans. Legislative measures have been taken to minimize the amount of particularly dangerous pollutants in waste streams. In addition to legislative measures, voluntary agreements have been made with trade and industry to ensure separate waste collection and recovery such as the voluntary agreement concerning the recycling of used cars. There are also sector-specific strategies, e.g. for medical wastes, waste paint and varnish, disposal of old cars, and reprocessing of residues from electroplating.

C. Hazardous Wastes: The Government promotes policies and programmes in the area of management of toxic and other hazardous waste. Austria has the Waste Management Act; Chemical Substances Act and a number of regulations concerning the reduction of pollutant load in waste streams, waste prevention and recycling (e.g. Batteries regulation, Lubricants Regulation, Lamp Regulation, Asbestos Regulation). Hazardous waste substances are to be classified in the same manner as hazardous new chemical substances. For waste and waste disposal, additional specific criteria are to be considered. Concerning the classification of hazardous waste, Austria carries out the relevant EU legislation. There is a Federal Waste Management Plan (1992) setting specific targets on the reduction of the volume and the pollutant load of waste streams, the environmentally sound and economically viable reuse of waste, on the disposal of non-avoidable or non-reusable wastes and on the regional distribution of waste-treatment facilities throughout the federal territory. The plan is revised every three years. The last revision was effected in 2001. Sector-specific waste-management strategies have been prepared for agriculture, leather industry, the medical sector, for the production and use of paints and varnishes, electro-plating industry and textile industry. To strengthen the institutional capacity in hazardous waste management, potential locations for landfills and thermal treatment plants have been identified.

D. Radioactive Wastes: There is a Radiation Protection Regulation, but, since Austria is a country without nuclear power plants, radioactive wastes are generated only for medical, research and industrial purposes. Provisions made for the disposal of radioactive wastes are subject to regular examinations and inspections in accordance with Austrian radiation protection legislation. Minimizing the amount of radioactive waste is a declared objective in the Austrian radiation protection policy.

Programmes and Projects:

A. Basic Sanitation: Research on endocrine modulators or the Monitoring Project on POPs in the Alps (MONARPOP) is some of the activities financed by the Ministry of Agriculture, Forestry, Environment and Water Management. (Folders and Abstract available).

The holder of a permit monitors wastewater discharges according to the requirements in the permits, in line with the provisions in the emission ordinances. Public administration is crosschecking this self-monitoring.

B. Solid Wastes: Numerous projects launched by the Federal Ministry of Agriculture, Forestry, Environment and Water Management are in order to avoid waste and reduce wastes. Modern Waste Management Act ("WKÖ-Projekt: Modernes Abfallrecht") ends in spring 2001.

"Sei g'scheit, vermeid!": The tasks of this project in the province of Lower Austria are to reduce solid waste as well as to provide information and guidelines e.g. how to repair things. Country-wide collection systems for waste paper, glass, packaging waste and biogenic waste have been set up. Numerous projects have been launched by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in order to avoid waste and reduce waste.

C. Hazardous Wastes: "E-Schrott – vermeiden, sammeln, verwerten": The aim of this project in the province of Lower Austria is the avoidance, collection and utilization of waste from electrical and electronic equipment. Country-wide collection systems for hazardous waste have been set up.

A waste sector programme which started in 1990 is continuing for the areas: Wood; Agriculture; Medical waste; Paints and varnish paints; Waste from non halogen waste; Waste from leather industry; Foundry waste; Foodstuff waste; Dry cleaners waste; Metal surface cleaning; Cellulose and paper industry; Textiles; Waste from photographic laboratories; Waste out of grease and oils; Waste from galvanic industry; and Surface technology.

D. Radioactive Wastes: See section Research and Technologies.

Status: *Socio-economic aspects*: Austria recognizes that it is one of the world's richest countries and, remembering the misery brought about by past world wars, it accepts its responsibility in regard to hunger and poverty. However, anxiety is also growing about increasing impoverishment at the domestic level, especially affecting socially underprivileged groups. Some social security benefits require certain minimum periods of employment under the social insurance scheme, which is difficult to obtain for some groups of persons, e.g. mothers with many children, women in agriculture and handicapped persons. The poverty rate in 1998 was 11.1% of the total population, of which 58 % were women.

Geography: The Alpine regions comprise 67.1% (56,244 km^2) of Austria's total land area. 32.850 km^2 of the area is forests; 23,500 km^2 is cultivated land; 8,900 km2 is pastureland; 9,100 km^2 is high mountains with no significant use, and 6,800 km^2 is water surface and building areas (information from 1993). Major obstacles to sustainable mountain development are caused by local or trans-frontier emissions of air pollutants, excessive game populations, forest pasture, avalanches, local overstraining of the physical region through outdoor sports, large number of second homes, leisure time facilities and development of infrastructure.

By January 1, 1998, 133 suspected contaminated sites had been registered as proven contaminated sites in the inventory, 43 proven contaminated sites are being secured or remedied and 11 proven contaminated sites had been registered in the inventory as "secured" or "remedied". In Austria there is a general trend towards transforming land used for other purposes into forest land.

A. Basic Sanitation: Residues from sewage treatment (sewage sludge) account for another 0.4 million t dry substance/a (Gewässerschutzbericht 2002), which are disposed of in an environmentally sound manner in accordance with provincial sewage sludge regulations. Due to improved wastewater treatment in Austria, the total level of emissions discharged has declined considerably since the 1970s.

B. Solid Wastes: Austria generates about 48.6 million tons of waste per year (2001), a major part of which (7.5 million t/a) is construction residues. In the field of waste management, in particular, voluntary agreements have been concluded between a number of economic sectors and the ministries in charge, under which the sectors concerned agree to take back the waste material generated by them. The following represent examples of the recycling rate in some sectors: Cars: recycling share of some 90% of annual total 210,000 wrecked cars; Paper: return rate of some 66%; Tires: annual volume some 50,000 tons; 80% used for energy production; Batteries: backflow is about 60% of all batteries sold; Credit cards and other cards made of PVC: collected since 1991, possible recycling rate is 100%, return rate 80%; and Glass: return rate about 72%.

C. Hazardous Wastes: Some 1 million tons of hazardous waste were generated in 2001. Since the amount of waste classified as hazardous depends on the definition used, a significant increase has been recorded in many sectors in the recent years in spite of successful waste prevention efforts.

D. Radioactive Wastes: No information available.

Capacity Building, Education, Training and Awareness-Raising: National awareness programmes on consumption and production and its consequences have been initiated. There are action campaigns to monitor the implementation. There is a project under way (on behalf of the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Federal Ministry of Transport, Innovation and Technology) carried out by the Austrian Institute of Economic Research to investigate the effects of different economic instruments to reach a more sustainable consumption. This study is made with the help of an expansion of the macroeconomic model of the Austrian Institute of Economic Research. Its focus lies in the fields of mobility and space heating.

A. Basic Sanitation: An intensive programme for post-graduate and advanced professional education and training takes place every year, organized jointly by the Professional Associations and the relevant institutions from universities and research institutes. Courses are offered on biological sewage treatment. The training of operators for water supply systems, sewer networks and WWT plants is also well established. Advanced training seminars for advisors and teachers, especially also for pre-service teacher training, have been introduced on such topics as safe drinking water, sanitation, biological sewage treatment, etc.

B. Solid Wastes: Advanced training seminars for teachers, especially also for pre-service teacher training, have been introduced on such topics as recycling. Counselling and consultation centers for waste issues have been established. For more information related to awareness-raising on waste reduction, see section Programmes and Projects.

C. Hazardous Wastes: For aspects related to awareness-raising on waste reduction, see section Programmes and Projects.

D. Radioactive Wastes: No information available.

Information: Austria participated in the testing of UNCSD indicators and prepared reports on the result. The discussions on testing the UN-CSD indicators led to a further publication dealing with eco-efficiency-indicators. It shows diagrams on selected issues showing the development of various

parameters as an index. The Conference of the environmental ministers on federal and regional level has passed a decision to work out and establish a system of environmental quality targets. This system shall convey information on the targets for the state of the environment and how its achievement shall be monitored and evaluated.

The Seibersdorf Environmental Technology Database for products and processes has been set up to facilitate the access of Austrian enterprises to modern environmental technologies. Support is provided, i.e., for extended cooperation with the Eastern European neighbors, for linking up the database with the Network for Environmental Technologies Transfer (NETT-Brussels) and for cooperation with domestic and foreign banking institutions. The Federal Environment Agency has published a study on biotechnology in Austria (see http://www.umweltbundesamt.at).

A. Basic Sanitation: The systematic monitoring of water quantity and quality is in place. This system is publicly administered, but it involves also private services (for sampling, and analyzing of samples for observing water levels). This programme provides a sound basis for decision-making aiming at maintaining and restoring good quality of waters. This assessment of the quantity and quality resources relied on an Act on Hydrography until 2003 and has been regulated by the Water Act ever since this Act's last amendment. The quantitative view is gained via ~ 1300 observation sites for precipitation, via ~ 760 gauges for water level and ~ 550 gauges for flow in rivers, and via ~ 3,050 observation sites for the water level in groundwater bodies. Additionally there are 50 observation sites for natural wells (mainly in the Austrian karst). The qualitative view is gained via ~ 1,572 sampling sites in 149 porous groundwater aquifers, via ~ 237 groundwater sampling sites in the fissured rock or karst, and via ~ 242 sampling sites in rivers. The holder of a permit monitors wastewater discharges according to the requirements in the permits, in line with the provisions in the emission ordinances. Public administration is crosschecking this self-monitoring.

The systematic monitoring of water quantity and quality provides a sound basis for decision-making aiming at maintaining and restoring good quality of waters. As part of the federal training and further development of teachers and advisors, courses are offered continuously, concerning the promotion of organic farming, environmental protection at farm level, biological sewage treatment, plants, and environmentally friendly production methods for foodstuffs, among others.

B. Solid Wastes: Detailed information on current activities can be found on http://www.lebensministerium.at and http://wko.at/up/enet/ChemR.htm

C. Hazardous Wastes: Detailed information on current activities can be found on http://www.lebensministerium.at and http://wko.at/up/enet/ChemR.htm

D. Radioactive Wastes: No information available.

Research and Technologies: Both in 1993 and 1994, product competitions (Ecodesign) were organized to stimulate new ideas and innovative solutions for environmentally sound product design and development and to raise awareness on these issues. In 1994, a junior research category was added to enable students and young designers to participate in the competition. In the summer of 1996, the first Austrian Cleaner Production Centre was established in Graz under the supervision of the Ministry of Environment. The activities include providing environmental technology and management of information, initiating and supporting regional and local cleaner production and toxic waste/emissions reduction programmes, stimulating research and development as well as transferring cleaner production technology. Austrian development cooperation promotes primarily capacity-building for independent technology development, including, above all, the promotion of independent R&D activities, strengthening R&D institutions, and support for education and training in technical and management disciplines. In 2000 a

research programme "Sustainable economy" was launched by the Ministry for Transport, Innovation and Technology with a focus on clean industrial technologies and innovative building technologies.

A. Basic Sanitation: Universities mainly undertake research; technologies are developed mainly by the relevant industrial enterprises. See also under Hazardous Wastes.

B. Solid Wastes: See section Hazardous Wastes.

C. Hazardous Wastes: The activities of the Austrian Cleaner Production Centre include toxic waste reduction programmes, and stimulating research and development as well as transferring cleaner production technology, among others. Austrian enterprises and research institutions have also participated in the COST (21 projects) and EUREKA (31 projects) programmes of the European Union, e.g. in EUROENVIRON, a project that has investigated safe ways of utilizing industrial waste. The "Future Industrial Technologies" part of the research programme "Sustainable Economy" focussed on prevention of toxic wastes.

D. Radioactive Wastes: There is a research programme to study the health and environmental effects of a long-term storage site for low- and intermediate-level radioactive wastes. With regard to their import restrictions, Austria is committed to the principle that radioactive wastes generated in Austria are to be disposed of in Austria. Concerning the spent fuel elements of Austrian research reactors, the supplier state has assumed a contractual obligation to take them back in compliance with all the relevant safety regulations. To control radioactive emissions, 300 sites of nuclear radiation early warning systems have been set up in Austria.

Financing:
A. Basic Sanitation: The setting-up of the primary infrastructure for water supply, sewerage and wastewater treatment was financed by charges and by public funds, in order to speed up the implementation time. The maintaining of this infrastructure will have to be covered by the charges collected from the beneficiaries utilizing these systems.

The massive investment into sewerage and wastewater treatment, strongly ongoing since the 1960s, is the key part of a programme to protect all waters. In 2003 86.0% of the resident population of Austria was linked to public sewers and biological wastewater treatment (WWT) plants. Between 1998 and 2003 5.293 billion Euro were invested in this field (an average of 882.2 million Euro per year). The projections for 2004 are 45 million Euro.

B. Solid Wastes: The deposition and export of waste materials are taxed. Tax rates depend on the type of waste. A further increment to the tax rate is imposed if the waste depot does not comply with a higher level of technical standards.

C. Hazardous Wastes: See section Hazardous Wastes.

D. Radioactive Wastes: No information available.

Cooperation: At present there are no specific environmental programmes but environmental protection and sustainable natural resource management are nevertheless major objectives in a number of cooperation programmes in various partner countries and regions, such as: a) Sustainable use of tropical rainforests in North Western Amazon (Brazil, Columbia). The respective projects pursue the strengthening of local indigenous societies and include measures to build up institutional capacities, to improve health services and educational institutions and the sustainable use of natural resources (especially non-timber forest products). b) The rural development programmes in West Africa and in the

Himalayas/Hindukush region focus on the fight against increasing degradation and rehabilitation of soil and vegetation. . c) Measures to develop sustainable use of resources and improvement of living conditions in buffer zones which are situated near precious ecological-systems, reserves or parks are currently promoted in Ethiopia (Simien Mountain National Park) and in Central America (Nicaragua, Guatemala). d) The Nicaraguan Cleaner Production Centre (NCPC) in Managua, financed by Austria, gives an example of co-operation for the development of cleaner and sustainable industrial development. In all projects Austria follows a participatory approach to create local ownership. Furthermore, each project financed by the Austrian Development Cooperation is subject to an environmental impact assessment.

A. Basic Sanitation: Special emphasis in Austria's overseas development cooperation is put on installation of drinking water systems.

B. Solid Wastes: Seminars and workshops on waste issues have been organized for various neighboring countries in Central and Eastern Europe. For aspects related to cooperation in research, see section Research and Technologies.

C. Hazardous Wastes: Austria ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in April 1993. Within the framework of the Technical Working Group of the Basel Convention, Austria participates in the elaboration of guidelines for environmentally sound treatment of wastes and supports these activities through a voluntary contribution to the Trust Fund of the Basel Convention. Austria also intends to contribute to the work done within the OECD in this field.

D. Radioactive Wastes: Austria supports the efforts made by the IAEA to harmonize standards governing the handling of radioactive wastes and to implement the Code of Practice for transboundary movements of nuclear wastes.

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