



umweltbundesamt^u

Environmental Situation in Austria

Eighth State of the Environment Report



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Water and Water Management

In order to comply with the EU Water Framework Directive, all water bodies Austria-wide must achieve a good status by 2015. With regard to the pollution of running waters by material inputs, the situation can be judged as very positive: Analyses measuring biological water quality revealed that the quality class I or II is achieved at 99 % of all monitoring sites. A lower quality (specific clean-up requirements) was measured only at 1 % of the monitoring sites. Of the bathing waters, 97 % comply with the requirements of the EU Bathing Water Directive. Another positive aspect is that the level of connection with the public sewerage system increased from 86 % in 2001 to 88.9 % in 2003.

With regard to river courses and their level of naturalness, 60 % of the river reaches are running the risk of not achieving a good status. This is mainly due to obstructions of the structure of water bodies and discharge regimes (flood protection measures, use of hydroelectric power).

In terms of quantity, the status is satisfactory in all groundwater areas. In some areas, however, there is a risk that the good status of groundwater quality might not be achieved due to contamination with nitrate, atrazine and desethylatrazine.

Air

European clean air policy provides for a reduction of air pollution to levels that have no considerable negative effects on human health and the environment. During the period under review, some substantial reductions were achieved for emissions of sulphur dioxide (SO_2 : -18.75 %), ammonia (NH_3 : -1.5 %) and non-methane volatile organic compounds (NMVOCs: -5 %). The objectives of the National Emission Ceilings Directive for 2010 have thus already been achieved. Nitrogen oxide emissions (NO_x) decreased by approximately 5 % (to 159,000 t) between 2003 and 2005. They are, however, still 56,000 t above the target value for 2010. Emissions of particulate matter (PM₁₀ and PM_{2.5}) also saw a slight decrease during this period.

Between 2003 and 2005 numerous exceedances were measured for particulate matter (PM₁₀) according to the Austrian Air Quality Protection Act. Exceedances of the limit value for nitrogen oxide (NO_2) were measured in particular at monitoring sites close to traffic. The ozone concentration which is above the legal target values at many monitoring sites in Austria is composed of high background levels as well as local or regional contributions.

Soil

The levels of contamination are low in most domestic soils. There are, however, some confined areas where diffuse atmospheric inputs of e.g. heavy metals and organic pollutants or inputs from point sources such as contaminated sites cause higher levels of contamination. On the basis of the 6th Environmental Action Programme of the European Union, a soil protection strategy was adopted by the Commission in September 2006 which aims at the protection and sustainable use of soils. During the period of 2003-2006, approximately 5 hectares of undeveloped soil were sealed in Austria, which is five times as much as planned under the Austrian sustainability strategy for 2010. Soils in Austria are not only lost as a result of building development schemes, but also due to erosion. 13 % of agricultural soils are at risk from water erosion.

Climate Protection and Climate Change

The Kyoto Protocol is an international agreement on climate protection which stipulates legally binding targets to reduce greenhouse gas emissions. Under the burden sharing agreement within the European Union, Austria has committed itself to a reduction of greenhouse gas emissions by 13 % compared to the base year 1990 during the period of 2008–2012. In 2005, emissions were 18 % above the base year levels and 36 % above the Kyoto target. The main causes included transport (27 %), industries (27 %), energy production (17 %) as well as space heating and other small consumers (17 %).

For currently projected increases in global temperature by more than 2 °C, disturbances in the biosphere and water regime are to be expected over wide areas, as well as a sharp increase in extreme weather events. In the Alpine region, increases by about 4 °C are likely for global temperature increases by 2 °C.

Agriculture

Due to voluntary measures under the agri-environmental programme, the use of nitrogen fertilizer saw a 15 % decrease during the period between 2001 and 2005. Here the increase of area under organic farming by 30 % between 2000 and 2005 is of particular importance.

The period between 1995 and 2003 saw a decrease in permanent grassland (-6.5 %) and arable land (-2 %) in Austria. Over the same period, crop production declined by 4.6 %, as well as the numbers of pigs (by 12.4 %) and those of cattle (by 11.8 %). Nevertheless, the intensification of agriculture progressed in favourable areas, while at the same time agricultural land was abandoned in less productive areas.

There is still no cultivation of genetically modified organisms (GMOs) in Austria. However, GMOs may currently be contained in imported raw materials for feedstuffs which, if above a certain threshold, must be labelled.

Forest and Forest Use

The Austrian forest programme stipulates the guiding principle of sustainable, multi-functional forest management. The forest, Austria's ecological and economic resource covering just under half of the national territory, is growing. The Austrian Forest Inventory shows a continuous increase in forest area, growing stock and increment. The proportion of conifer-dominated forest has been declining continuously in the last few decades for the benefit of the proportion of deciduous trees.

The stability of the forest and thus its multiple functions are liable to multiple threats. The forest, even though it constitutes an important climatic buffer providing protection from climate-related natural hazards, is affected by impacts of climate change e.g. damage from drought, windthrow or increased bark beetle infestation.

Biological Diversity and Nature Conservation

When the European Council met in Gothenburg, the European Union and its Member States formulated the objective to put a stop to the loss of biodiversity by 2010. Biological diversity is at risk due to abandonment of extensively used areas in agriculture, habitat fragmentation and losses, as well as climate change. The Red Lists of threatened animals and plants provide information on the likelihood of extinction: 33 % of vertebrate species and 40 % of ferns and flowering plants are threatened. Of 61 grassland biotope types, 55 biotope types are threatened, and in particular meadows under extensive use (e.g. dry hay meadows, wet meadows) are endangered. Neobiota, i.e. non-native plant, animal and fungus species, are also affecting biological diversity as they may displace native species. In 2004, 35 plant species, 47 animal species and six fungus species were included in the neobiota action plan.

Noise

The aim of the Environmental Noise Directive of the European Union is to prevent, or act against, any harmful effects from ambient noise on human health as well as unacceptable nuisance caused by ambient noise, and to protect and maintain quiet areas. In 2003, 29.1 % of the population felt they were disturbed by noise, with 73 % stating traffic – predominantly road traffic – as the cause. Despite a large number of noise abatement measures, the level of exposure has remained more or less unchanged in the last few years due to increases in transport.

Waste Management

The objectives of the Austrian Waste Management Act are to keep harmful and adverse effects on man and the environment at a level as low as possible, to protect resources and to avoid any risks that may be caused to future generations by improper storage of waste. Waste generated in Austria increased from 1999 (about 49 million tonnes) to 2004 (about 54 million tonnes). Over the same period, the generation of hazardous wastes (about 1 million tonnes) remained unchanged. Waste treatment and recovery saw a marked improvement: The proportion of untreated wastes from e.g. households (and similar establishments) consigned to landfills decreased from 28.5 % in 1999 to 7.7 % in 2004. During the period between 1996 and 2004, the total amount of waste generated increased at almost the same rate as the gross domestic product (GDP) and wastes generated by households (and similar establishments) increased at a significantly higher rate than the GDP.

Contaminated Sites

On the basis of the 6th Environmental Action Programme of the European Union, a soil protection strategy was adopted by the Commission in September 2006 which aims at the protection and sustainable use of soils and contains requirements concerning the registration, investigation and remediation of soil contamination caused by former industrial sites. By the end of 2006, about 50,000 contaminated sites and old landfills were registered – another 30,000 sites which will be registered in the next few years are to be expected. According to estimations it is assumed that about 2,500 sites pose a considerable threat to health and environment. Of these, 238 have been included in the register of contaminated sites, of which 78 have been cleaned up already, giving priority to the largest and most hazardous sites and eliminating the environmental hazards caused by these sites. By 2050, all contaminated sites are to be registered, and those classed as requiring clean-up measures remediated.

Chemicals, Biocidal Products and Plant Protection Products

REACH stands for the registration, evaluation and authorisation of chemicals within the European Union and entered into force on 1 June 2007. The aim of REACH is to include more than 90 % of the market volume of chemicals, and in total, about 30,000 substances will have to be registered. The registered substances will be subjected to a risk assessment involving several stages and individual uses will be evaluated. Under the new system, substances may only be placed on the market if they have been duly registered, with the company having to provide proof of the substance's safety. Since 1 September 2006 only those biocidal active substances have been allowed on the market which are scheduled for detailed evaluation by 2010. A new evaluation is currently also performed on existing pesticidal active substances. In order to improve the safety of handling chemicals, and to eliminate any technically unjustified differences in the hazard classification, a worldwide standardisation of the labelling of chemicals is expected through the Globally Harmonised System (GHS) from 2009.

Energy

The sustainable use of energy, which minimises environmental impacts and protects the resources, is – apart from competitiveness and energy security – the aim of European energy policy. In Austria, energy consumption saw a yearly increase by 3.1 % between 2002 and 2005, with transport accounting for 31 % and the production sector for approximately 29 %, whereas private households consumed 26 %, public and private services approx. 12 % and agriculture 2 %. The predominance of the fossil energy sources crude oil and natural gas increased even more over the same period. In 2005, transport was dominated by crude oil products, with a consumption of 6.28 million tonnes of diesel fuels, 2.07 million tonnes of gasoline and 96,000 tonnes of biofuels. During the period of 2002–2005, renewable energy sources saw an increase by 1.6 %. Thus the share of renewable energy sources in the gross domestic consumption was 21.7 % in 2002, 21.5 % in 2004 and 20.0 % in 2005. The lower share recorded in 2003 (19.1 %) resulted from the low rates of hydropower production during that year. Excluding hydropower, renewables saw a 15 % increase over the period between 2002 and 2005.

Industrial Plants

According to the Directive on Integrated Prevention and Pollution Control (IPPC Directive), old industrial plants have to be adapted to current state-of-the-art technologies by the end of October 2007. Thus emissions are to be reduced and resources to be used efficiently. In 2005, 585 IPPC plants were registered in Austria, of which about 530 were old industrial plants. Some of the emission limit values stipulated in the current national legal requirements no longer comply with state-of-the-art technologies and should be adapted accordingly. For a few sectors, there are as yet no – or no sufficient – generally binding emission requirements.

In order to promote environmental technologies and for their further development, the European Commission has adopted the European Technologies Action Plan (ETAP). In Austria, the environmental technologies master plan [Masterplan Umwelttechnologie (MUT)] specifies measures to promote environmental technologies over the next ten years.

Transport

The aim of the European transport and environmental policy is to create transport systems that are sustainable in the long term from an economic, as well as social and ecological point of view. In 2005, 26 % of the transport performance of Austrian passenger transport was accounted for by public transport, pedestrians and cyclists. The remaining 74 % was accounted for by passenger cars, motorised two-wheelers and aviation, with the largest proportion accounted for by passenger car traffic at around 61 %. Between 1990 and 2005, transport performance in Austria increased by 21 %; the increase in freight transport performance was 58 %, with a 2.1 % increase between 2003 and 2005. This resulted in increases of energy consumption, greenhouse gas emissions, land consumption and noise emissions in the transport sector. Along with transport performance, the number of vehicles has also seen a continuous increase in the last few years.



Spatial Planning

According to the guiding principle No 13 of the Austrian sustainability strategy, the increase in area allocated for transport and building purposes is to be reduced to 1/10 by 2010. In 2005 and 2006, about 11.5 hectares of land per day were used for transport and building purposes in Austria, of which 5 hectares were sealed. Giving preference to new building developments over the reuse of old industrial land and sites increases the consumption of land. Responses to the impacts of climate change should include preventive spatial planning measures such as ensuring that risk zones are kept free and under controlled use, and securing flood retention capacities.