

# AUSTRIA

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## CONCLUSIONS AND RECOMMENDATIONS\*

Austria has recognised the need to protect the environment since the early 1970s. This awareness has been heightened by the importance of the tourism industry in its economy and the pressures on the environment by sectors such as transport, energy, industry and agriculture. Federal and provincial governments have adopted generally ambitious environmental goals and policies. These have been reinforced by the social partnership that has long characterised decision making at both the federal and provincial levels.

As Austria is a land-locked country, in the middle of Europe, the quality of its environment is partly dependent on the progress achieved by its neighbours. With its recent membership of the European Union, and with the development of its relations with central and eastern Europe, there will be both further pressures on the Austrian environment and opportunities to co-operate with its closest partners on environmental progress.

The environmental challenge for the future lies in: i) finding the most cost-effective methods to prevent and control pollution; ii) moving further along the path of sustainable development, including in sectors such as tourism, energy, transport and agriculture; and iii) remaining at the forefront of international environmental progress.

This OECD report sets out the baseline for assessing future environmental progress, and it examines the environmental performance of Austria in three major areas:

- i) preventing and controlling pollution;
- ii) integrating environmental and economic decisions;
- iii) international co-operation.

In each of these areas, the extent to which government policy objectives are being met has been assessed. This assessment includes both domestic objectives and international commitments, and is based on environmental effectiveness and economic efficiency criteria. A number of recommendations are put forward that could contribute to further environmental progress in Austria.

### 1. Preventing and Controlling Pollution

Austria has been very successful in dealing with all major environmental issues of the late 1970s. Its achievements concerning conventional pollutants such as SO<sub>x</sub> (a reduction of 81 per cent between 1980 and 1992) put the country among the top in the OECD in this regard. Austria has enacted elaborate environmental legislation, developed detailed regulations and enforced its policies very strictly. The main emphasis has been on the use of end-of-pipe technology with a strong regulatory system. Austrian environmental expenditure in terms of GDP is among the highest in the OECD, and industry and municipalities have received substantial subsidies to support their endeavours. Results achieved can be partly explained by Austria's long tradition of consensus building through early dialogue with the social partners (industry and trade unions as well as commerce and labour chambers with compulsory membership), a widespread law-abiding attitude and a solid federal and provincial administrative structure.

#### *Air*

Most of the national emission reduction targets adopted by Austria are more stringent than those required by international agreements. The target level of the Sofia Protocol, stabilisation of NO<sub>x</sub> emissions at their 1987 level, has been surpassed (-22 per cent between 1987 and 1993). By 1992, Austria was already meeting the 80 per cent SO<sub>2</sub> reduction target of the 1994 Oslo Protocol, set for 2000; and per GDP emissions of SO<sub>2</sub> are among the lowest in the OECD. Substantial progress has also been made in reducing emissions of particulate matter (50 per cent).

Austria has used regulatory measures effectively to control air pollution. Stationary sources are controlled by national emission standards and licences that require the use of the best available technology. Individual licences may be more stringent than national standards should this be necessary to protect the local environment. Regulation of the sulphur content of fuel has been strengthened step by step. Austria has been a front runner in Europe in reducing emissions from motor vehicles. Unleaded gasoline was introduced in the mid-1980s, and from 1986, new emission standards meant that three-way catalytic converters had to be fitted on new gasoline-fuelled cars.

In contrast to the downward trends of national emissions, the deposition of sulphates and nitrates has not diminished. Due to large transboundary influxes of these pollutants, accounting, *inter alia*, for 95 per cent of total

\* Conclusions and Recommendations approved by the Group on Environmental Performance at its May 1995 meeting.

sulphur deposition, critical loads of acidity were exceeded by as much as ten times in the most sensitive areas. Ground-level ozone is the most serious ambient air quality problem. As transport accounts for a large part of atmospheric emissions (NO<sub>x</sub>, VOCs and CO<sub>2</sub>), with the sector growing rapidly, the need for a more comprehensive and environmentally sensitive transport policy is urgent. Integration of environmental measures in sectoral policies such as energy and agriculture is also important.

It is therefore recommended that consideration be given to the following proposals:

- fully implement the measures already developed, and consider a broader range of instruments, including economic instruments, to reduce CO<sub>2</sub>, NO<sub>x</sub> and VOC emissions;
- continue to pursue effective co-ordination among federal ministries on matters concerning emission regulations and enforcement, as well as among the federal, provincial and local levels of government;
- develop and implement a more comprehensive and environmentally sensitive transport policy, with measures to reduce vehicle emissions and to contain road traffic, including rail infrastructure development and integrated land use planning;
- promote the integration of air pollution concerns in energy and agricultural policies;
- extend the monitoring of hazardous air pollution and take appropriate remedial measures where required.

### ***Water***

The clean-up of many Alpine lakes, started in the early 1970s, constitutes a major Austrian success. Good progress has also been made towards the overall objective of reaching at least class II biological water quality in all Austrian rivers, although there is still some way to go. Since the 1990 amendment of the 1959 Water Act, greater attention has been paid to an integrated ecosystem approach. Good results are being achieved in restoring river ecosystems affected by hydraulic engineering works, but future hydro development could further diminish the country's stock of rivers with a natural flow regime. Water conservation efforts (elimination of leaks, use of the price mechanism) have effectively curbed demand. Very strict effluent standards are being imposed and the operational standard of both municipal and industrial waste water treatment plants is high. Compliance with the conditions of waste water permits appears very satisfactory as a result of an effective enforcement system.

The proportion of households connected to biological treatment plants is now about 70 per cent, while the maximum potential connection rate is estimated at 85 per cent. Significant investment is planned to achieve this goal, as well as to raise treatment standards of existing plants. Nutrients are no longer a major problem in Austrian rivers, but some emerging pollution problems, such as diffuse emissions from agriculture, require attention before they become worse. Further progress with the reduction of industrial discharges is likely to require greater use of cleaner production methods. While the regulatory approach has thus far been successful and will continue to play an important role, it would be desirable to employ additional instruments when and where they are likely to lead to more cost-effective solutions.

It is therefore recommended that consideration be given to the following proposals:

- further promote cleaner production methods in industry to achieve further reductions of polluting discharges; use a mix of measures, including economic instruments, to achieve this;
- direct further investments in municipal waste water treatment where they will be most cost-effective, for example by extending sewerage and waste water treatment services to communities not yet served;
- take further measures to reduce diffuse discharges from agriculture;
- give special attention to maintaining the quality of water bodies and aquatic ecosystems that are still close to their natural state, for instance in connection with hydraulic engineering activities; provide protection for remaining wetlands through physical planning and other instruments;
- strengthen policies to reduce the exposure of settlements to floods and landslides, and ensure that disaster damage compensation policies are consistent with them.

## **Waste**

The 1990 Waste Management Act clearly established the "waste hierarchy" as the guiding principle for a waste management policy; the act mainly uses regulatory but also some economic instruments (e.g. deposit-refund systems) and voluntary agreements. Waste minimisation is promoted through waste prevention (e.g. waste licence requirements for industrial plants) and recycling. The recycling rate for paper is very high compared with other OECD countries; the separate collection of recyclable material and biogenic waste is well developed at the local level; several take-back obligations are being implemented to recover hazardous materials; and the Packaging Ordinance encourages recycling and will also lead to increased waste prevention.

With a broader definition of hazardous waste and the adoption and implementation of new regulations, the federal and provincial governments have significantly strengthened control of hazardous waste since 1991. Austria ratified the Basel Convention in 1993, but relevant regulations on waste export and import had already been implemented in 1991. For each export, the Federal Ministry for the Environment assesses the adequacy of the disposal measures in the importing country, and requires a financial guarantee to ensure alternative disposal in case the original plan is not carried out. The export and import of non-hazardous waste is also subject to licensing.

In spite of recent progress towards the waste hierarchy principles of the Waste Management Act, further achievements in waste management in Austria should be expected. Municipal waste generation is still high compared with a number of OECD countries. Waste management still focuses on regulating what is generated; attention should be given by all sectors of society to implementing measures to reduce the generation of waste.

It is therefore recommended that consideration be given to the following proposals:

- ensure further effective implementation of recent policies;
- develop production patterns and recycling practices that meet the Packaging Ordinance at the least environmental and economic cost;
- facilitate waste minimisation in the industrial sector; extend the use of plans for specific waste streams;
- improve waste treatment and disposal measures;
- ensure that there is appropriate treatment and disposal capacity for most hazardous waste in Austria.

## **2. Integrating Environmental and Economic Decisions**

It is reasonable to state that the achievements described above, while effective, have not been reached at the lowest cost. Current approaches, largely based on regulations and best technology, may have to be streamlined and supplemented by efforts to integrate environmental and economic decisions. That way, further progress can be made on environmental problems that are already well under control, and remaining, more intractable ones can be addressed. Among the compelling reasons for modification are: i) the rising marginal costs of pollution abatement as treatment levels increase; ii) current budget deficits and public debt; and iii) the concern with exposure of the Austrian economy to international competition.

### ***Further improving cost-effectiveness***

Austria probably needs to reconsider its environmental legislation as a whole in order to streamline the content, reinforce the integrated approach and better allocate tasks among the various ministries and levels of government. This effort may require time, but would seem imperative if Austria wishes to pursue sustainable development in its legislation and policies. In the process, efforts should be made to reduce administrative complexities and increase cost-effectiveness of environmental measures. Goals for coming years might be the proper implementation of the National Environmental Plan and an improved permitting procedure.

Much of the public expenditure for the environment is still financed by the taxpayer rather than directly by the polluter or user. In line with the polluter pays principle, greater use of economic instruments with less subsidy for environmentally disruptive activities would help alleviate the budget burden, while improving cost-effectiveness and promoting the use of cleaner technology. Such moves might be supported by a shift from tax on labour to tax on natural resources, as well as a greater use of voluntary agreements and economic expertise in an administration that is still very much regulatory minded. The environmental and economic effects of industrial projects, economic policies, land use plans or regulations should be assessed in all relevant cases.

Austria has begun to change its traditional approach on pollution control to a more integrated approach involving all ministries, all levels of government and the many economic sectors. Consideration is being given to the integration of environmental and fiscal policies. Very ambitious environmental targets have been set for air pollutants, although it is not clear whether they will all be met in time. The expected adoption of the National Environmental Plan should help launch a new generation of environmental management.

It is recommended that further consideration be given to the following proposals:

- rationalise and simplify environmental legislation; take steps to simplify permitting procedures for industrial projects;
- proceed with the National Environmental Plan and strengthen co-ordination of environmental policies among various ministries and levels of government;
- review development subsidies for possible environmentally detrimental effects, to promote more sustainable production and consumption patterns;
- introduce new economic instruments, e.g. to control waste water discharges by industry;
- make further efforts at international level to harmonise pricing of road transport at full cost, to reflect environmental and other physical and social effects;
- adopt legislation on environmental liability in support of the polluter pays principle;
- make wider use of voluntary agreements, and publicise the commitments as well as the achievements under these agreements;
- launch special measures to promote environmental protection activities in small and medium-sized enterprises.

#### ***Sectoral integration: energy***

Austria's energy policies have achieved good environmental results. Energy intensity per unit of GDP has been decreasing for most of the last 20 years, and is significantly lower than the average for OECD Europe. More than one-quarter of total primary energy supply consists of renewable resources (mostly hydro and biomass). Industrial combined heat and power plants are increasingly being built, although there is still much scope for further improvement (e.g. in the pulp and paper industry). The federal and provincial governments are continuing to strengthen the thermal insulation standards of buildings. About 8 per cent of the housing stock is connected to district heating systems, especially in Vienna, which has developed a large network; and the use of biomass as an energy source for district heating has grown considerably. Air pollutant emissions from energy use have been reduced significantly.

So far, energy efficiency improvements and the use of alternative forms of energy have been promoted mainly through subsidies. There has been some use of economic instruments in recent years (e.g. a progressive electricity tariff for domestic users in Vienna), but the incentive effects are still limited. Austria's target of reducing CO<sub>2</sub> emissions by 20 per cent over the period 1988-2005, from an already low level, will be difficult to reach. It will thus be necessary to develop aggressive, cost-effective programmes, and to implement them with determination. Further co-ordination of energy policies between the federal and provincial administrations will be needed. Economic instruments, including tax measures to internalise environmental costs, would be important in the strategy to provide incentives to all parties and promote cost-effective measures.

It is therefore recommended that consideration be given to the following proposals:

- strengthen energy efficiency measures in all sectors, including industry;
- consider an appropriate mix of instruments, including economic instruments (such as taxes and charges), demand-side management, regulations, voluntary agreements and information;
- strengthen the implementation of the comprehensive programme to reduce CO<sub>2</sub> emissions at federal and provincial levels as rapidly as possible; introduce an energy or CO<sub>2</sub> tax, taking account of policies adopted at EU level;
- continue to promote district heating and the use of biomass while giving attention to cost-effectiveness;
- further integrate energy and water management policies and carefully balance the need for further hydropower projects with other environmental objectives;
- develop public participation in relation to environmental impact assessment for energy projects.

### *Sectoral integration: tourism*

Tourism is a major sector of the Austrian economy (15 per cent of GDP, 30 per cent with all associated activities; 18 per cent of all export receipts). The importance of the environment for tourism in Austria is reflected in many strategies within tourism policy, by government entities as well as by the private sector. For about 15 years, Austria has shown continuous progress in making its tourism sector more environmentally friendly. A wide range of measures has been adopted to move from quantitative growth to qualitative growth in the tourism industry. This was facilitated by the fact that environmental quality is a major sales factor for Austrian tourism. The measures relate to, *inter alia*, the management of tourism-related traffic, eco-labelling, "green" villages, land use, codes of practice and the rapid expansion of protected areas. In many respects (e.g. water quality improvement), progress has been sustained and very impressive. Agriculture may be detrimental to the environment if farming practices reflect only individual economic needs of producers. On the other hand, sustainable farming methods contribute positively to tourism development, for example by maintaining settlements in remote areas and protecting landscape and amenities, especially in mountain areas.

These achievements notwithstanding, improvements are still possible. For example, while some individual studies have been made, there is still insufficient information on the overall contribution of tourism to environmental pressures, the environmental expenditure of the tourism industry and other economic factors. Availability and provision of information on tourism and the environment vary by province: a multitude of definitions is used, for example with respect to nature protection. The Austrian Conference on Regional Planning provides the general framework and guidance for territorial development in all sectors. With Austria's accession to the European Union, institutional mechanisms to manage territorial development and planning might have to be strengthened. Spatial planning by provinces is yet incomplete but has gained pace in recent years, triggered by the entry of Austria into the European Union. Even where spatial master plans exist, their coherent translation into municipal land use plans has not always been visible. Little progress has been noted concerning tourism-related traffic, in particular long-distance traffic. Most tourism/environment policy measures have been regulatory, and substantial scope for the use of economic instruments remains.

It is therefore recommended that consideration be given to the following proposals:

- rapidly move towards the early implementation of the tourism measures in the National Environmental Plan when it is adopted;
- continue efforts to influence tourism demand patterns and to reduce the temporal and spatial concentration of the demand for tourism services;
- strengthen institutions and efforts for comprehensive and coherent territorial planning and land use planning, including implementation of the guidelines on sustainable territorial development at local level;
- consider increased use of economic instruments for reducing further the environmental impact of tourism;
- continue efforts to contain the negative effects of tourist transport and develop regional traffic concepts for the improved co-ordination of public transport;
- improve the information base on tourism and environment, working towards greater harmonisation of definitions (e.g. for biotope mapping) and management criteria across provinces, in particular in the field of nature protection;
- develop an overall plan for national parks in Austria, and continue efforts to create more national parks and increase the level of protection in protected areas.

### **3. International Co-operation**

Austria is particularly concerned by international issues because of its situation in the middle of Europe and its exposure to transfrontier pollution as well as to transfrontier freight traffic. Before joining the European Union, Austria integrated EU environmental law into its legal system.

#### *Achievements*

Austrian policy to promote international co-operation in the environmental field over the last 25 years has been very successful. Bilateral relations were developed with eastern neighbours and, very early, with western neighbours. This co-operation has led to the exchange of information, further pollution abatement, bilateral land use planning commissions, binational parks, etc. Co-operation with the east has been supported by financial means, in particular the East-Ecofund.

Austria has succeeded in reducing its own contributions to transfrontier water pollution (e.g. in the Danube, Mur and Drau rivers), and also air pollution, while encouraging, pressing and assisting other European countries to do likewise. Austria has given great importance to the control of transit freight traffic by road, and has been able to achieve international agreement on this issue (which incorporates innovative instruments such as "eco-points"). It has also established an extensive network for mutual information in case of nuclear accident; and it has taken strict measures to control hazardous waste export to OECD Member countries and to avoid the export of hazardous waste to non-Member countries. Austria has also exercised leadership concerning the international legal regime to protect the ozone layer, and has met all its commitments ahead of schedule. It adopted ambitious national targets for CO<sub>2</sub> and a series of measures that, if rapidly enforced, would make it possible to stabilise CO<sub>2</sub> emissions at 1990 levels by 2000. Austria has taken many initiatives to strengthen international environmental law and was successful in its support for dispute avoidance and settlement mechanisms.

### *Areas for progress*

Although the achievements are, again, very impressive, Austria may find it difficult to reach some of the objectives of its international environmental policy. While an agreement exists with the European Union concerning transit freight traffic, the expected growth in transit traffic appears unsustainable. Although Austria and other OECD countries have reduced their SO<sub>x</sub> emissions significantly, sulphur deposition in some areas of Austria is essentially unchanged. Little progress has been made concerning the creation of a "nuclear power free area"; also, few resources have been given by Austria to increase safety of nuclear power plants in eastern countries. Concerning trade in timber products, the voluntary labelling system proposed by the Austrian Government is not yet operational.

It is therefore recommended that consideration be given to the following proposals:

- ratify recent international environmental agreements (Annex III) and implement environmental policies promoted by the Austrian Government in international organisations and negotiations;
- adopt long-term plans to cope with unsustainable growth in transit freight traffic and stimulate the financing of appropriate transit infrastructure at a European level;
- finalise and implement as soon as possible protocols to the Alpine convention;
- strengthen co-operation with Danubian countries on water pollution, notably by establishing the permanent secretariat and by providing adequate funding for pollution control activities in the whole Danube basin;
- continue efforts to prevent existing CFCs in functioning second-hand appliances from being exported;
- pursue vigorously reductions in emissions of CO<sub>2</sub> and other greenhouse gases, in collaboration with other EU countries;
- give greater attention to environmental issues in development aid programmes, in particular by performing full environmental impact assessments in all appropriate cases and by providing financial resources in line with Austrian commitments at international level;
- continue efforts towards the development and adoption of international environmental law at the European level and, whenever possible, at global level; in particular, consider further development of international regimes for liability and compensation for environmental damage;
- provide more information at international level on achievements concerning environmental protection in Austria.