

# PORTUGAL

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## CONCLUSIONS AND RECOMMENDATIONS\*

Portugal has experienced a cycle of rapid economic growth -- one of the highest in the OECD -- since joining the European Community in 1986, and has set itself the objective of reconciling economic development with environmental protection. This growth is associated with structural changes --- industrial modernisation, a decline in agriculture, urbanisation of coastal areas, development of tourism --- and with regional disparities, and generates several types of pressure on the environment: natural resource use, pollution and the restructuring of land use.

The European Community plays an important role in Portugal's economic development, participates to a significant extent in funding environmental protection expenditure and influences Portuguese laws and regulations through its Directives on the environment.

Portugal is thus faced with the challenge of achieving economic growth and sustainable development, and ensuring economic and ecological convergence with other European countries.

The OECD's report has set out the baseline for assessing future environmental progress and has examined Portugal's environmental performance in three key areas:

- integration of environmental and economic decision-making;
- pollution abatement and natural resource management;
- international co-operation.

In each area, the degree to which the objectives set by the public authorities have been achieved has been evaluated. National objectives are often of a general nature, but are sometimes more precise and quantified. This is also true of international commitments.

### 1. Integration of Environmental and Economic Decisions

#### Environmental performance, sustainable development and environmental convergence

Portugal's environmental expenditure has generated improvements in areas such as sewage treatment plants or regulated dumps. However, economic growth, industrial development and migration towards the coast and towns have all complicated the search for solutions by sometimes creating new environmental problems, particularly in mainland Portugal. They have affected the quality of life and the tourism industry.

Based on the information currently available, it appears Portugal, at its current level of pollution abatement and control expenditure, will find it very difficult:

- (i) to pursue sustainable development and face up to the pressures caused by relatively rapid economic growth, and
- (ii) to ensure environmental convergence, i.e. to attain a degree of environmental protection comparable to the European Community average.

The exact scope of the additional efforts needed depends on the transition period which has yet to be defined, the objectives set and economic trends during such period. Financing this effort within Portugal's budget will certainly cause problems. Its funding could thus be provided principally by (i) Community funds (and in particular cohesion funds), (ii) new charges paid by users or polluters, and (iii) new forms of partnership and sponsorship, in particular for natural heritage protection. The financial effort required may be reduced if environmental considerations were better integrated into economic decision-making, whether sectoral or not, and if various instruments (regulatory, economic and land-use planning measures) were used together.

Madeira and the Azores have achieved positive results in integrating environmental protection, tourism and more traditional activities.

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\* Conclusions and Recommendations approved by the Group on Environmental Performance at its July 1993 meeting.

### **Institutional mechanisms and instruments for policy implementation**

Measures taken since 1987 have enabled Portugal to acquire a coherent set of laws and regulations on the environment and associated institutions. The creation in 1990 of the Ministry of the Environment and Natural Resources and progress accomplished in inter-ministerial consultation on the environment should improve the efficiency of the central administration. Information on Portugal's environmental protection expenditure shows that measures have been taken and investment has significantly increased in recent years. The relationship with industry has been developed through voluntary agreements. Environmental impact assessment procedures are beginning to be applied to major projects as well as to activities financed by the European Community. Land-use planning and management are well developed in Portugal, particularly in coastal areas.

The adoption by the Portuguese Government of objectives concerning (i) State efficiency in implementing environment policy ("less of the State, but better") and (ii), the use of economic instruments (pricing and fiscal measures but also environmental investment) is strengthening the progress made. In this regard, it is recommended that consideration be given to the following proposals:

- The report on the follow-up to the Rio Conference should serve as the basis for the development of a national plan on the environment. This plan should enable essential overall studies to be carried out, mobilise the various ministries and social and economic partners involved, and show the way to sustainable development.
- The level of environmental expenditure and their funding mechanisms should be examined in depth.
- Concerning economic instruments, it appears urgent to introduce pollution charges in order that environmental costs be taken into account and new financial resources generated at national and municipal level.
- Implementation of regulatory instruments should be strengthened, in association with other incentive instruments. Efforts could be undertaken for infringements to be formally recorded, and in order that the courts play a greater role by setting penalties more frequently when serious pollution and other illegal acts occur.
- Land-use planning and management could be made to play a preventive role in environmental policies. The Ministry of the Environment should strengthen its team of economists in order to better study and integrate costs, subsidies and damages relating to the environment into governmental policy. Economic information should be developed in association with other competent ministries and possibly with social and economic partners.
- The progressive increase in demands for environmental protection should lead public authorities and industry to encourage the emergence of an eco-industry able to respond to such demands, in particular in the areas of water and waste.

### **Environmental training and information**

The training and information efforts which should be made are all the more necessary and sizeable in Portugal, because communication between the administration, companies and the public can still occasionally be insufficient, as a result of habits inherited from the past.

Portugal's policy in this area was defined as early as 1987 and has been progressively implemented by the Ministry of Education and the Ministry of the Environment. The results obtained after only a few years are noteworthy but remain little known and, of course, limited:

- The inclusion of the environment in educational policy is a good example of successful integration. This success results largely from the existence of an organisation with specific responsibility for these matters under the auspices of the Ministry of the Environment: the Institute for the Promotion of the Environment.
- Public information policy is very complete and is aimed at the public, decision-makers, laymen and specialists. Collection of environmental data has been completed in a few years, starting from an unsatisfactory situation. The materials collected and distributed have had a positive effect on public awareness of environmental matters.
- Actions intended to enable the public to take an active part in the decision-making process have been undertaken for some environmental problems. Although the issues submitted to public inquiry are still limited, this type of initiative, only five years after Portugal's framework legislation on the environment, is a highly positive sign of the Government's interest in public participation.

The Portuguese Government considers that continued efforts in environmental training and information are a priority. In view of the task ahead, such a policy requires an extension of the resources available. At the same time, it would be useful to make a detailed evaluation of the efficiency of those measures already taken, in order to avoid dispersal of efforts and to correct on-going strategies where necessary.

The central administration will have an essential role to play, though concertation with local authorities, environmental protection associations, unions and industry will have to be strengthened. The deficit of information and public awareness on environment could be reduced by the use of greater and more decentralised resources. The regionalisation of the public authorities' activities could be expressed through real administrative deconcentration and by involving the public through participation activities. A greater degree of transparency together with an improved communication policy on the part of the administration and industry should also be developed.

### **Sectoral integration: air pollution, energy and transport**

In comparison to other European OECD member countries, Portugal's performance on air is characterised by a low total volume of atmospheric emissions and generally good air quality. However, emissions are increasing more rapidly and local atmospheric pollution problems occur in some urbanised and industrialised areas. The development of emission levels relative to GDP indicates that the economic growth of the 1980s was not accompanied by a comparable air pollution control effort. Today, legislation relating to the control of atmospheric pollution is progressing. Joint commissions enable concertation with industry and preparation of the introduction of new emission standards, made necessary by the adoption of European Community legislation.

During the past decade, Portugal's energy requirements and intensity increased at a rate which is one of the highest among OECD countries. In contrast to most of these countries, Portugal has become increasingly dependent on energy supply to achieve economic growth. On-going changes in Portugal's energy structure have already had a noticeable effect on SO<sub>2</sub> emissions in spite of increased coal use, due to fuel quality improvements. Energy product taxation has recently begun to integrate incentives linked to fuel quality, and in particular to sulphur and lead content, which have had a noticeable effect. The reduction in taxes on LPG is an encouraging example of the extension of this approach to alternative fuel use. However, a sharp drop in real energy and transport prices has been and remains an important factor in stimulating demand for energy and transport services. Electricity prices in particular reflect neither the economic realities of production, nor social costs.

In the future, it is probable that atmospheric pollution problems, and in particular those due to NO<sub>x</sub> emissions, will increase. The benefits of energy conservation efforts, the forthcoming introduction of natural gas and the success of co-generation may be more than compensated by very strong growth of the transport sector, particularly in coastal areas. Efforts to modernise and rationalise public transport represent a first step towards wider action in favour of modal transfers to less-polluting forms of transport.

The legislative framework is in place, and the main measures necessary to lessen the growing impact of energy and transport activities on the environment have been taken. The provisions of the framework law on air quality of 1990 which were the subject of a decree adopted in 1993, should be implemented. It is therefore recommended that the following proposals aimed at integrating environmental concerns into sectoral policies on transport and energy be considered:

- The strengthening of energy conservation measures, currently threatened by falling energy prices, and the implementation of an integrated development plan for the transport sector, could be made priority areas.
- Economic instruments should increase awareness of the real costs of energy and transport services, as well as of external environment-related costs. In this respect, it would be desirable to improve balance of taxation between vehicle fuels and other energy products and extend existing fiscal incentives so that they may better reflect environmental protection goals; to continue efforts to rationalise energy pricing, in particular for network energy sources such as electricity; and to extend this rationalisation effort to taxation on vehicle and road use.
- Large pollution abatement investments will be necessary, in particular in refining and electricity production.
- Taxes or charges on atmospheric pollution could encourage the development of less polluting facilities by improving the cost-effectiveness of pollution control techniques and clean technologies, and possibly contribute to financing improved energy efficiency and air pollution control investments.
- Environmental impact assessments should be systematically carried out at an early stage of the decision-making process for major energy and transport infrastructure projects.

## 2. Pollution Abatement and Natural Resource Management

### Water

In order to ensure long-term development of water resources, and to avoid water becoming a limiting factor in the development of dependent activities (industry, agriculture, energy, tourism), Portugal's water management policy is based on an integrated management structure within the Ministry of the Environment, which associates management of surface and underground waters, qualitative and quantitative management measures and management of use by various sectors, whilst relying on direct participation by other ministries. It also relies on the existence of a legislative and regulatory framework, the implementation of a water pricing system in most regions of the country and very positive activities and bilateral relations with Spain concerning common river catchment areas.

However, overall results are mixed. Although Portugal is well endowed with fresh water, regional shortages occur during the dry season. Concerning water pollution, information on trends shows an improvement in the quality of surface waters, but suggests some problems concerning underground waters; it provides a generally satisfactory overall picture for coastal waters, although local problems exist in several estuaries and lagoons. Overall, pollution levels have not increased, and they have even decreased in certain cases (such as the pulp and paper industry). This trend is positive, given Portugal's rapid economic growth and the generally satisfactory state of its environment. It must be noted, however, that Portugal remains under-equipped in sanitation networks and treatment stations for urban and industrial waste water.

It is therefore recommended that consideration be given to the improvements which may be obtained using the following measures:

- Strengthening of implementation of anti-pollution measures, with particular attention to local and upstream water needs, as well as to estuarial, lagoon and coastal ecosystems.
- Development of all economic aspects of water resource management: economic evaluation of major water supply projects, self-financing of water distribution and pollution abatement activities, implementation of the Polluter-Pays Principle and the User-Pays Principle, use of economic instruments, evaluation of the use of subsidies, and increasing the financial resources of the Ministry of the Environment.
- Preparation of a special plan for the management of underground waters with a view to protecting their quality and ensuring reliable supply for uses requiring high-quality water.
- Acceleration of construction programmes for sanitation networks and treatment stations for municipal and industrial waste water, whilst avoiding pollution being aggravated by discharges from recent and new facilities, and making the best use of innovative technologies;
- Conclusion and implementation of "environmental pacts" with the various industrial sectors, associated with efficient monitoring mechanisms and their public access.
- A study of the creation of agencies centred on major water catchment areas to carry out integrated management of these areas: management of watercourses and underground water bodies, pollution prevention and control measures, monitoring of navigation, flood protection, and erosion prevention. The core of these agencies could be the existing regional Delegations of the Ministry of the Environment, and benefit from close and active participation on the part of the region's municipalities.

### Waste

Concerning waste management, for a long time the practice was to deposit waste in unregulated dumps, leading to pollution of the atmosphere and of surface and underground waters. Major efforts were undertaken from the mid-1980s: Portugal established an appropriate legislative framework for waste management and surveys and inventories were made to better evaluate existing problems. There was also investment to initiate the country's equipment in regulated dumps and sorting centres for urban waste, and measures were taken with industry to improve the management of industrial waste, for example through voluntary agreements on recycling, with encouraging results.

However, although the situation has improved, no solution has yet been found, and the Portuguese authorities feel that waste causes "major problems", which "must be dealt with urgently", and that the issue of waste and particularly that of hazardous waste, is "one of the most serious national environmental concerns".

From a technical as well as a financial point of view, efforts have already been made towards improving waste management. However, these efforts are probably not sufficient to avoid a worsening of the situation, and, even more so,

to reduce the growing threat to the environment resulting from increased waste generation. It is recommended that the following proposals be considered:

- Portugal currently lacks appropriate facilities for the elimination of urban, industrial and hospital waste, and should implement the plans which have been adopted and invest in this area.
- Financial incentives to encourage the appropriate elimination of waste should be implemented, based on the application of the Polluter-Pays Principle regarding investment and operating costs.
- Mechanisms for inspection and penalty setting are not yet operating efficiently, thus encouraging the continued use of technically outdated and sometimes illegal practices; they should be improved in association with incentive or voluntary measures.
- In order to increase public and industrial awareness and for future planning purposes, it would be necessary that national plans already adopted for waste management be more rapidly implemented, and in particular those concerning management of urban, industrial and hospital waste, after discussion with the various parties concerned. These plans, which contain targets, an implementation schedule and a description of the financial means needed, should also include a hierarchy for waste management in accordance with Agenda 21, monitoring and implementation measures, and an evaluation of actions which should be taken to clean up old "blackspot" sites.

### Soil and land use

In the past, soil conservation policy has not been closely integrated with agricultural policy. The considerable changes in the share of land devoted to forestry, cereal cultivation, permanent cropland and pasture were linked to the implementation of a series of financial support programmes in favour of cereals, other crops and afforestation. However, these agricultural and afforestation programmes have limited soil damage. Recent regulatory developments have strengthened the trend towards improved soil conservation.

Nevertheless, serious soil degradation problems exist in large areas of the country, notably vulnerability to erosion. The development of eucalyptus afforestation has been called into question in debates concerning forest fires and soil protection. In recent years, measures have been implemented to take into account the impact on the environment of plantations of such rapid-growth species. Eucalyptus has no longer been given priority in plantation projects by public authorities since 1990. The increase in irrigated land may facilitate soil conservation whilst enabling improved management of cultivated land, but in some cases it can also cause new problems (salinity, erosion, water pollution). Finally, though the level of pollution by agro-chemical products is generally low, there are local problems which need to be solved by technical, informational and training means.

Today, Portugal is at a turning point as regards soil and land use management. The removal of national cereal subsidies and the need to restructure agriculture in favour of profitable crops will coincide with the objective of long-term preservation of the most fertile agricultural land and zones of ecological value. Forests have been recognised as an economic resource and as a soil protection tool. Pressures on high quality soil from urban and industrial development will remain strong in coming years. With current regional and communal planning process on the one hand, and the National Agricultural Reserve and National Ecological Reserve systems, and protected areas network on the other, Portugal has the legal and institutional means to ensure coherent land-use planning whilst taking account of ecological issues.

The next five years will be decisive. It is therefore recommended that the following proposals be considered:

- Environmental concerns should continue to be integrated into financial support programmes for afforestation and for conversion to permanent cropland and pasture.
- Development of incentive and information programs aimed at changing agricultural practices such as irrigation, use of chemical fertilizers, holding size, etc., should be pursued.
- Co-operation efforts between the Ministries of the Environment, of Planning and Territorial Administration, and of Agriculture, in particular regarding measures relating to agriculture, forests, water, land-use planning and tourism, should be strengthened.
- Priority should be given to the completion of regional land-use planning documents.
- The National Ecological Reserve should be provided with adequate working means.
- Strict observance of regulations concerning protected areas should be guaranteed; their size should be increased and an objective of about 10 per cent of the territory could be set for these zones.
- The public and NGOs should be more closely associated with the management of protected areas and land-use planning processes.

### 3. International Co-operation

Bilateral relations in the environmental field are highly satisfactory and Portugal now participates in a large number of international agreements. The integration of the principles of European Community environmental law into Portuguese legislation is well advanced. Measures have been taken to protect important natural areas and certain threatened species, to reduce transfrontier pollution, and to assist developing countries with respect to environmental issues. The overall result is positive, particularly for a country which itself benefited from development assistance until recently.

Regarding future progress, it is recommended that the following proposals be taken into consideration:

- The adoption by Portugal of new international commitments, in conformity with models and norms in force abroad, could continue to encourage improvements in national environmental policy. The implementation of domestic legislation and regulations further to European Community decisions, OECD Decisions and Recommendations, and regional or worldwide conventions, will continue to have a very positive effect on Portugal's environmental policy.
- Concerning bilateral relations, it may be appropriate to strengthen environmental co-operation with Spain, for example through a bilateral agreement giving a firmer and more effective basis to action already undertaken, and which would resolve the difficulties associated with the existence of widely differing institutions on either side of the border.
- Regarding maritime matters, it would be useful to take additional measures for improved protection of Portuguese waters against the dangers associated with considerable maritime traffic off the Portuguese coast. The competence of various administrations regarding protection of the marine environment have already been clarified but further specification is necessary before a serious accident occurs in the country's territorial waters or economic zone. The necessary resources for monitoring maritime traffic and to deal with pollution caused by vessels should be strengthened, particularly concerning oil tanker de-ballasting. The co-operation set up by the Lisbon Agreement should be more thoroughly tested by combined international exercises to improve the various elements included in the Agreement.
- Regarding transfrontier atmospheric pollution, the outlook appears to be that Portugal will increasingly be both a producer and a victim of transfrontier air pollution by sulphur and nitrogen oxides. Concerning the protection of the ozone layer, Portugal should reduce its imports of regulated substances in order to conform to the Montreal Protocol.
- Concerning compensation for transfrontier damage, Portugal is a contracting party to the major conventions, but could consider ratifying other conventions, protocols and amendments to guarantee better compensation of Portuguese victims.
- In view of its special relationship with certain Portuguese-speaking developing countries, Portugal could play an increased role in the north-south dialogue on the environment. This role would be all the more credible if Portugal increased its development assistance, in particular by increasing the scale of its actions with an environmental component.

