Portugal’s environmental progress has improved but faces challenges due to the difficult economic situation.

There are also opportunities to better integrate economic and environmental policies.

Environmental policies have been consolidated and strengthened…

…but more could be done to involve the public constructively in environmental decision-making…

…and to create better incentives for private sector engagement on the environment.

Portugal has made good use of the opportunities provided by the membership of the European Union.

Meeting the post-Kyoto targets for reducing greenhouse gas (GHG) emissions will be challenging.

Renewable energy plays an important role in Portugal’s energy and climate policies…

…but more should be done to reduce demand for energy and emissions from transport.

Innovative policies have been introduced for coastal zone and marine management, but implementation remains a challenge.

In the decade since 2000, Portugal’s economy has grown at a relatively modest rate compared with other OECD countries. A switch from fossil fuels to renewables in the energy mix, and a significant strengthening of environmental policies and institutions have enabled Portugal to improve the environmental quality of its people’s lives (Figure 1).

However, important environmental challenges remain: household effluents still affect water quality, industrial and municipal waste continues to increase, while fast growth in tourism, services, trade, transport and related energy demands exert pressures on natural habitats and biodiversity.

The Portuguese economy was badly affected by the global economic and financial crisis, and now faces a period in which fiscal consolidation will be a major priority in order to address a serious budget deficit. In this context, the main short-term challenge for Portugal is to enhance the cost-effectiveness of environmental policies; to do more with less. In the longer term, Portugal should integrate environment into the structural reforms that are underway to boost productivity and long-term competitiveness. Opportunities exist in sectors such as renewable energy to pursue a greener growth path that makes economic and environmental policies more mutually supportive.
In 2008-09, Portugal’s economy entered a recession as a consequence of the global economic downturn. The government responded with the adoption of a stimulus package, in which environment-related measures accounted for about 18%, equivalent to 0.15% of GDP. Support for energy efficiency, renewable energy technologies and investment in electricity and smart grids constituted the core of the “green” stimulus measures. This reflects Portugal’s priority to reduce external energy dependence and domestic greenhouse gas emissions, and thereby to improve overall long-term competitiveness. The fiscal stimulus has helped to stabilise the economy in the short term. However, the country’s public finances have deteriorated to such an extent that fiscal consolidation will be a major priority for the coming years.

Reforming the tax system, expanding environmentally related taxes and removing environmentally harmful tax concessions and subsidies could help fiscal consolidation without hampering economic recovery, while providing better incentives for the environment. As recommended by the 2001 OECD Environmental Performance Review, Portugal has made progress in expanding the use of environmentally related taxes. It has introduced waste and water taxes, a tax on inefficient light bulbs, and CO2 emissions-based vehicle taxes. Revenue from environmentally related taxes increased during the review period and reached nearly 8% of total tax receipts, well above the OECD average (Figure 2). This revenue is partly allocated to specific funds managed by several authorities, and earmarked for environmental purposes. These funds need to be carefully managed to ensure that they have a well-justified purpose and that they do not continue once their main objectives have been achieved. The 2010-13 Stability and Growth Plan foresees strengthening environmentally related fiscal measures with a view to better maintaining their incentive function and to help improve fiscal sustainability.

Figure 2. Environmentally related taxes

However, exemptions to taxes on products (such as energy products), and categories of users (such as farmers), have been adopted for social reasons. Similarly, many municipalities that directly provide water and waste services do not pass on the water and waste taxes to consumers. Such measures are usually a costly way to pursue equity objectives; they entail tax revenue losses, distort competition and investment decisions; and, by lowering end-use prices, they can reduce incentives to use energy and natural resources efficiently. These disadvantages can be avoided, and social objectives achieved more efficiently, by providing targeted support to the affected groups. More generally, phasing out energy-related tax concessions is a more cost-effective way of reducing energy consumption than providing tax credits and incentives to households and businesses to invest in energy efficiency and renewable energy equipment.

ENVIRONMENTAL POLICIES HAVE BEEN CONSOLIDATED AND STRENGTHENED...

Portugal has developed a comprehensive environmental planning and programming framework which largely corresponds with the requirements of the European Union (EU). Several framework laws were enacted including the 2005 Water Law, the 2006 Waste Law, and the 2008 Nature Law.
The enactment of laws and regulations initially resulted in the business community facing a complex set of environmental requirements. The situation has improved since the introduction in 2006 of the government-wide Better Law-making and Simplex Programmes that aim to enhance the quality of laws, reduce administrative burdens on business, and provide easier access to legislation through electronic publication of regulations and law codification. A further step towards simplifying the regulatory process and strengthening its effectiveness was taken in 2008 with the adoption of a law that established the Regime of Industrial Activity. Nevertheless, further efforts are needed to streamline and simplify environmental requirements and reduce compliance costs. The staffing arrangements of environmental institutions at all levels should be carefully assessed to ensure that they are sufficient to achieve policy objectives in a way that minimises the administrative costs of compliance, and reduces uncertainty for the business community.

**Box 1. Key environmental trends during the first decade of the 21st century**

**Emissions of key air pollutants have declined while the economy has grown.** Emissions of sulphur oxides, decreased by 64% between 2000 and 2008, compared with an average of -28% for OECD as a whole. Portugal is on track to meet its national and international air emission targets. However, emissions of small particulates have not decreased, and local air pollution incidents still occur in large cities, with potential impacts of ground-level ozone on the health of the population.

**Substantial reductions of nitrogen and phosphorus loads from agriculture have contributed to water quality improvements and a decrease in nutrient concentrations in rivers and reservoirs.** The share of the population connected to public wastewater treatment plants increased from 50% in 2000 to 70% in 2008, though this is below the 90% objective established for 2013. The quality of coastal bathing water shows further improvement. Although river water quality has also improved, it is poor in 40% of rivers. Unsatisfactory water quality in reservoirs is a cause of concern. Only 7% of groundwater was classified as being at risk.

**Waste generation has continued to increase.** The increase was slower than economic growth and private consumption during 2001-10 but the growth in waste quantities has accelerated since 2007. Good progress has been achieved in managing waste, particularly the control of illegal dumping, which had previously been a concern. All municipalities have established effective waste collection systems for mixed waste. An efficient system of waste treatment infrastructure is in place, including for hazardous waste. Collection and treatment of used batteries and accumulators, waste electrical and electronic equipment waste, used oils, end-of-life vehicles, used tyres and packaging is subject to Extended Producer Responsibility schemes, and efforts have been made to connect these schemes with markets for recovered and recycled resources. Tariffs for municipal waste collection have been applied in many municipalities, but they do not always provide sufficient incentives for waste reduction.

**Portugal has reformulated laws and plans for nature and biodiversity management.** New management tools have been implemented and new sources of finance mobilised, both domestically and from the EU. Monitoring of species has been strengthened. The extent of protected areas is comparable to the OECD average. Portugal has designated 22% of its land area as part of the Natura 2000 network. Despite these efforts, biodiversity loss has continued. Habitat deterioration is also of concern.

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**Figure 3. Municipal waste generation 1995-2008**

In parallel with regulatory simplification, several steps have been taken to ensure better compliance with environmental requirements. Environmental enforcement procedures have been made more effective, based on risk assessment and supported by compliance promotion efforts. In dealing with violations of environmental laws, administrative procedures have proven more efficient, while criminal prosecution has rarely been used. However, further efforts are needed to apply scarce environmental enforcement resources more cost-effectively. Further adjustments of administrative procedures, better targeting of enforcement actions to focus on serious violations, and expanded compliance promotion campaigns that target specific sectors could help in this regard.
Portugal has developed a comprehensive system of environmental information, broadened public participation and expanded access to justice, the three “pillars” of the Aarhus Convention ratified by Portugal in 2003. A 2006 law on access to environmental information and the conditions for its provision have strengthened access to the already well-established system for dissemination of environmental information to the public. The annual State of the Environment reports are presented to the Parliament to support discussions of the national budget. However, participation by citizens in environmental decision-making is still limited by a weak non-governmental organisation (NGO) movement. Access to justice is constrained by lengthy court proceedings and the difficulties that courts encounter when adjudicating on environmental issues. Further steps should be taken to support NGOs’ constructive participation in environmental decision-making and to strengthen procedures for stakeholder dialogue.

Portugal joined the EU in 1986 and has benefited significantly from its membership. During the 2000s, a major effort was made to transpose environmental directives and to take advantage of financing opportunities provided by EU Structural and Cohesion Funds. Over the programming period 2000-06, the EU contribution to environmentally related investments was over EUR 2.3 billion, equivalent to 9% of the EU funds allocated to Portugal. Programmes for allocating and using EU funds have been increasingly based on sound analysis of investment needs and identification of adequate progress indicators. They have contributed to improving environmental performance and administrative capacity in Portuguese regions, and ultimately to an improved quality of life. Substantial investments have been made in drinking water, wastewater treatment, waste management, and, more recently, clean energy technologies. Despite this funding, significant additional public funds will be necessary in the near future if ambitious goals for expanding environmentally related infrastructure are to be achieved. Financing recurrent operation and maintenance costs will also be a challenge.

During the 2000s, Portugal began to play a more active role in the EU, and in influencing policy development. Maritime policy is one such example. During its EU Presidency in 2007, Portugal helped lay the foundations for European policy on water scarcity and drought. It also promoted policies to tackle climate change and biodiversity.
However, Portugal should assume more of the responsibilities associated with EU membership. For example, official development assistance (ODA) represented 0.23% of its gross national income, well below the minimum DAC-EU donor target of 0.51%, and the UN target of 0.7%. Assistance for environment and water and sanitation represented about 1% of total ODA, reflecting the low priority attached to these areas in Portuguese development co-operation. Portugal’s pledge of EUR 36 million made in the framework of the Copenhagen Accord for fast-start financing over 2010-12, is a step in the right direction.

MEETING THE POST-KYOTO TARGETS FOR REDUCING GREENHOUSE GAS (GHG) EMISSIONS WILL BE CHALLENGING.

Under the EU Burden Sharing Agreement, Portugal’s Kyoto Protocol target is to limit GHG emissions to an increase of 27% in 2008-12 compared to 1990 levels. In the period 2000-05, these emissions increased, despite sluggish economic growth. They decreased from 2005, primarily due to a switch to less carbon-intensive energy sources. This was reinforced by measures taken to comply with a number of energy and climate related EU Directives, including those concerning the Emissions Trading System (EU ETS). The economic recession also helped to reduce emissions (Figure 4). In 2008, emissions were about 3% above the assigned target for 2008-12. While the Kyoto target remains achievable, including through participation in international carbon markets, the challenge will be to sustain the recent emissions decrease once economic growth resumes with a view to achieving Portugal’s targets to 2020.

RENWABLE ENERGY PLAYS AN IMPORTANT ROLE IN PORTUGAL’S ENERGY AND CLIMATE POLICIES…

Historically, Portugal has been highly dependent on imports of oil and coal. In recent years, it diversified its energy supply by switching to gas and further developing renewable energy (Box 2). As a result, in recent years less energy is required, and less GHGs emitted, per unit of output.

As in many other countries, support mechanisms for renewable energy are based on feed-in tariff systems, tax benefits and small levels of investment subsidies. Portugal’s feed-in tariffs are consistent with similar tariffs in other EU countries. Portugal is among the countries with the highest support effectiveness. The renewable energy sector is expected to directly create nearly 10 000 jobs. Portugal aims to develop industrial activities linked to the renewable technology sector and to become a net exporter of such technologies, especially wind and solar power. An industrial cluster linked to wind power has been developed, with a budget of EUR 1 750 million, involving the creation of approximately 1 700 direct and 4 500 indirect jobs. An ambitious programme to develop 180 000 electric vehicles and 25 000 charging points by 2020 is closely related to the renewable energy programme.

Portugal should strengthen efforts to ensure that renewable energy projects are assessed in the framework of its energy strategy, taking into account cumulative environmental impacts, alternative options, and the impacts of support measures on electricity tariffs. These policies should be assessed to ensure that they do not overlap with the EU ETS, and that the overall mix of policies to reduce greenhouse gas emissions and improve energy security is cost-effective. It should also ensure the broadest possible public participation in environmental impact assessment procedures.
Until recently, relatively less attention has been given to curbing demand for energy. The adoption of the 2008 National Energy Efficiency Action Plan was an important step to address the rising consumption of energy, particularly in the commercial and residential sectors. However, it is unclear whether the funds required to implement the Plan will be available, and whether the measures selected will achieve the energy-saving target at minimal cost. In view of the different incentives to reduce GHG emissions in sectors within and outside the EU ETS, there is scope to broaden demand-side management measures and to establish energy prices that better reflect environmental costs.

Hydropower is the main source, though currently only 46% of its potential is exploited, compared to 95% in countries such as France, Germany and Italy. A national programme aims to exploit 70% of this potential by building up to ten new dams. The programme is controversial. Although it was subject to socio-economic evaluation and strategic environmental assessment, and each proposed dam is subject to environmental impact assessment, concerns have been raised because of the impacts the dams may have on water flows and on ecosystems, and about the consultation process and the consideration given to alternatives. On the other hand, dams could provide additional benefits in terms of flood and drought control, and fire risk mitigation.

The government has established an ambitious target of 5 100 MW of wind capacity by 2012. If this target is met, Portugal will have the highest share of wind in electricity production in the world. The wind programme is linked to the hydro programme because excess wind power will be used to pump water into reservoirs, where it will be stored until electricity demand is such that the water can be released through the dams' turbines to regenerate a portion of the power.

Electricity production from biomass capacity is met primarily from thermoelectric plants using forest biomass. A significant contribution to achieving Portugal's renewables targets is also expected from photovoltaic. The Moura photovoltaic power plant, with phase 2 under construction, will be the largest in Europe.

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...AND TO REDUCE EMISSIONS FROM TRANSPORT.

Transport is Portugal’s largest energy “end-use” sector and emissions are expected to continue to grow. Vehicle taxation based on CO₂ emissions and vehicle scrapping programmes have created strong incentives to use more efficient vehicles. However, efficiency gains may be outweighed by the increased scale of vehicle usage. There is scope to address emissions from the transport sector through broader use of economic instruments such as road pricing, parking fees and congestion charges. The success of the ambitious plans for electric vehicles will depend on the timely development of the electricity network and metering infrastructure, as well as the further development of renewable energies. An ambitious biofuels programme is unlikely to achieve its 2010 target of 10% of transport fuel. This programme is more expensive than other GHG abatement options, and there are questions about its net environmental and economic benefits.
PORTUGAL’S COASTAL ZONE IS ONE OF THE COUNTRY’S GREATEST ASSETS AND IS HOME TO 76% OF THE POPULATION. IT IS VITAL FOR TRANSPORT AND TRADE, CONTAINS SOME OF THE MOST VALUABLE NATURAL HABITATS AND HERITAGE SITES, AND IS A FAVOURITE TOURISM AND LEISURE DESTINATION. HOWEVER, EROSION AND FLOODING EXACERBATE PROBLEMS ASSOCIATED WITH RAPID URBANISATION, INDUSTRIAL DEVELOPMENT, AND THE SHRINKING OF AREAS IMPORTANT FOR NATURE PROTECTION AND BIODIVERSITY CONSERVATION. IN ADDITION, THERE IS THE LONGER-TERM THREAT OF THE RISING SEA LEVEL DUE TO CLIMATE CHANGE.


BOX 3. POLIS LITORAL

The Integrated Operations of Rehabilitation and Recovery of Coastal Areas schemes (Polis Litoral) cover over 300 km of seashore, including the banks of lagoons and estuaries. The key objectives of interventions include: i) developing economic activities related to coastal resources and linking them to the preservation of natural resources; ii) protecting and rehabilitating coastal zones in order to promote nature and biodiversity conservation, the reinstatement and restructuring of coastal lagoons, and preservation of the natural heritage and landscape; iii) preventing and protecting people, property and infrastructure against natural hazards; and iv) promoting public use of the coast.

Financing, estimated at EUR 322 million between 2007 and 2013 according to the Strategic Plans for Interventions, is provided by the state (Ministry of Environment and Spatial Planning, Ministry of Economy, Innovation and Development, and Ministry of Public Works, Transport and Communications), municipalities and the private sector, supported by EU funding (Cohesion Fund, European Regional Development Fund, European Fisheries Fund). Four schemes are operated by private companies. The companies have advisory boards on which the state and municipality institutions that coordinate actions within the coastal zones are represented. All the operations of the Polis Litoral companies are subject to environmental impact assessment procedures.

Despite the elaboration of these often-innovative plans, implementation has fallen short due to funding shortfalls, fragmented institutions and conflicting interests among the many stakeholders involved. A further strengthening of the underlying information systems and analytical capacities could help strengthen implementation. Greater use of economic rather than regulatory instruments could also help; this could include charges for construction permits, taxes on second homes, tax incentives for brownfield remediation in coastal zones, nature tax on building permits, and a capital gains tax for the sale of agricultural land to developers. Instruments like these could provide better incentives for spatial planning and to finance infrastructure and the acquisition of fragile and threatened land for nature protection and biodiversity conservation. However, the application of such instruments needs to be embedded in strengthened mechanisms for coordinating water, coastal and marine management, both horizontally and vertically. More co-ordinated implementation of the different instruments for territorial management is needed, including better coherence in the implementation of the National Strategic Plan for Tourism, particularly in nature conservation and biodiversity protection areas.
These Highlights present key facts, figures and policy recommendations of the 2011 OECD Environmental Performance Review of Portugal. The Review examines Portugal’s progress since the previous OECD Environmental Performance Review in 2001.

The Highlights are based on the report prepared by the OECD Environment Directorate, with the contribution of reviewers from two examining countries: Austria and France. The OECD Working Party on Environmental Performance discussed the report at its meeting on 29 November 2010, and approved the Assessment and Recommendations.

The 28 policy recommendations aim to provide further support to Portugal’s initiatives on:
• greening growth;
• implementing environmental policies;
• international co-operation;
• energy and environment integration;
• coastal zone management.

This review is part of the OECD Environmental Performance Review Programme, which provides independent assessments of countries’ progress in achieving their domestic and international environmental policy commitments, together with policy relevant recommendations. They are conducted to promote peer learning, to enhance countries’ accountability to each other and to the public, and to improve governments’ environmental performance, individually and collectively. The Reviews are supported by a broad range of economic and environmental data.

Each cycle of the Environmental Performance Reviews covers all OECD member countries and selected partner countries.

The most recent reviews include: Norway (2011), Japan (2010), Luxembourg (2010), Ireland (2010), Greece (2009), Finland (2009) and Turkey (2008).

Further information:

OECD Environmental Performance Review of Portugal:
www.oecd.org/env/countryreviews/portugal

OECD Programme of Environmental Performance Reviews:
www.oecd.org/env/countryreviews

Environmental Data and Indicators:
www.oecd.org/env/indicators

For further information on the Review, please contact:
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