

ENVIRONMENTAL PERFORMANCE REVIEW OF NORWAY

EXECUTIVE SUMMARY

In the 1990s, Norway's GDP grew by 35%; its GDP per capita increased by 28%, to rank third among OECD countries. Much of Norway's economy depends on the use of its natural resource base. Its economic performance to a large extent reflects the rapid growth of the Norwegian oil and gas industry. Extensive hydroelectricity resources supply a range of energy intensive industries, and per capita electricity consumption is the world's highest. Fisheries and aquaculture registered increases in production of 60% and 120% over the 1990s.

Awareness of national and international environmental issues has long been high in Norway, which is exposed to air and coastal water pollution influenced by emissions from other countries. Other pressures on its environment are associated with offshore oil and gas production, fishing, transport, and growing demand for electricity. Norway faces the challenge of optimising the economic benefits of its rich natural resource base while protecting its environmental and social values. Priority environmental issues are presently: biodiversity, eutrophication and oil pollution, waste and recycling, climate change, outdoor recreation, cultural heritage, hazardous chemicals, international co-operation, and environmental protection in polar areas.

This report examines progress made since the previous OECD environmental performance review of Norway, and the extent to which its environmental domestic objectives and international commitments are being met. 40 recommendations are put forward that could contribute to strengthening the country's environmental performance, and to its progress towards sustainable development.

Increasing the effectiveness of environmental policies

In the 1990s, Norway strengthened its environmental regulatory framework with new waste management and nature conservation measures, and with the transposition of EU directives as a result of the 1992 Porto Agreement on the European Economic Area. There has been decentralisation of responsibility for environmental management towards the municipalities, particularly with respect to nature conservation and land-use planning. Use of economic instruments has evolved; highlights have included introduction of the CO₂ tax in 1991 and extension of its coverage in the late 1990s, taxes on final disposal of waste, recycling deposits on electrical and electronic products, and taxes on environment- and health-damaging chemicals. Environmental Impact Assessment regulations have been revised, with greater coverage of projects. Land-use planning has been an important instrument to better protect environmentally and culturally valuable areas, and to support transport management. The pilot Green Government Project focuses on green procurement, energy savings and waste management in ten government agencies.

The fact that Norway's environmental actions have continued to be based mainly on ambient quality criteria and cost-effectiveness has avoided use of funds to realise small environmental benefits at the domestic level. However, this approach is not necessarily consistent with policies based on emission standards, such as some of those adopted within the EU, or with emission reduction targets such as those in multilateral environmental agreements. Despite several achievements in the 1990s (e.g. reduction of SO_x and lead emissions), Norway's performance has been insufficient to meet a number of its own environmental objectives (e.g. concerning NO_x and VOC emissions, nutrient discharges, waste generation, nature protection). Environmental pressures from fast-growing sectors (energy production, fisheries, aquaculture, transport) have increased. Despite this gap between intentions and results, good intentions remain, with much conceptual work carried out to broaden and strengthen use of economic instruments (e.g. transferable quotas for air emissions, green taxation) and renewed inter-ministerial commitments regarding a number of environmental objectives. The challenge ahead will be for Norway to show that it can meet its domestic and international environmental commitments, even those which are not critical for its own environment.

* See Annex.

T H E O E C D E N V I R O N M E N T P R O G R A M M E

Towards sustainable development

In the 1990s, Norway experienced high economic growth (+35%), benefiting in particular from increasing revenues from oil and gas operations. Strong decoupling has been experienced for SO_x and lead emissions and the use of pesticides and ozone depleting substances. The goal of sustainable management of non-renewable energy sources led to the establishment, in 1991, of a Petroleum Fund as a way to transmit wealth to future generations and buffer the Norwegian economy from excessive fluctuations in petroleum revenues. In the area of institutional integration, economic modelling and analysis have been applied to several environmental issues. Environmental concerns are addressed during the annual budget process, and sectoral environmental plans, targets and reporting mechanisms have been adopted. Concerning market-based integration, Norway has made early and broad use of economic instruments for environmental integration, and has explored in-depth the possibility of introducing a tradeable quota system to manage its GHG emissions. Environmental management and audit schemes are progressing in Norwegian industry.

Despite these quite advanced and sometimes exemplary policies, overall Norway has achieved only weak decoupling: a number of pollution trends (CO₂, NO_x and VOC emissions; nitrate in effluents; municipal waste generation) are still increasing in absolute terms, although more slowly than GDP. Sectoral subsidies and quota systems should be reviewed systematically for their environmental implications. The many exemptions from environmentally related taxes should be reassessed with respect to their economic, social and environmental rationale. The recent shift in taxation away from car use towards car ownership cannot be considered environmentally beneficial.

International commitments: achievements...

In the 1990s, Norway continued to give high priority to international environmental co-operation, implementing bilateral and regional activities with its neighbours (co-operation with Russia, the Action Plan to Eliminate Pollution of the Arctic) as well as with developing countries. Norway is still one of the world's most generous donors of official development aid (0.9% of GNP/y). It actively seeks to promote sustainable development by "mainstreaming" environmental aid into all development aid and by prioritising institutional strengthening. Norway has met all its international commitments to reduce SO_x emissions. It was also one of the first countries to ratify the Aarhus Protocols concerning POPs and heavy metals, and played an important role in developing the UNEP Convention on POPs. Although data are still incomplete, early indications suggest that it has already made considerable progress in achieving its commitments to reduce emissions of certain POPs. Between 1985-95, Norway reduced phosphorous inputs to sensitive North Sea ecosystems by 48%. It has taken early and effective measures to control and reduce the manufacture, trade and use of ozone depleting substances. Norway has played an active role in international efforts to conserve biodiversity. It actively supported the establishment of the Cartagena Protocol on Biosafety, and was the first country to ratify it.

... and areas for progress.

Despite these achievements, Norway's performance regarding international environmental co-operation has been insufficient in some respects. Concerning climate change, its GHG emissions are projected to increase by 22-26% from 1990 to 2010. Plans have been under development concerning how to meet Norway's Kyoto commitment, based on two White Papers presented to the Parliament (the latest in June 2001) and a 1999 report by a special commission on a national system of tradeable GHG emission quotas. Concerning air pollution, efforts to meet international commitments to reduce NO_x and VOC emissions have stalled in the face of the rapid growth of energy production and use. With respect to the marine environment, the next decades will be very challenging, with the dismantling of aging offshore platforms as well as the scrapping of increasing numbers of vessels from Norway's very large fleet. Ship scrapping is associated with environmental and safety problems in the developing countries where it takes place. Frequency of inspection of foreign vessels in Norwegian ports decreased significantly in the 1990s, no longer meeting the requirements of the Paris Memorandum of Understanding on Port State Control. Like other members of the North Sea Conference, Norway did not achieve the agreed 50% reduction of nitrogen inputs to the North Sea between 1985-95. For most pollutants, the emissions intensity of offshore operations increased in the 1990s (although Norwegian operations remain relatively clean compared to those of other OSPAR countries). About fisheries, key North Sea stocks jointly managed by Norway are still in peril. Reexamination of the international quota-setting process is clearly indicated. Norway therefore faces major and increasing environmental challenges in the areas of climate change, traditional air pollution, the marine environment and marine resources, all relating for the most part to its energy and fisheries sectors.

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Annex: 40 Recommendations*

<i>Environmental Management</i>	<ul style="list-style-type: none"> • improve the <u>effectiveness of environmental policies</u> with respect to a number of priority environmental objectives adopted nationally or internationally; • adhere to and continue to pursue established <u>long-term environmental objectives</u> while closing the implementation gap; • strengthen implementation of environmental policies and legislation, with appropriate supervision of <u>enforcement</u> for both pollution abatement and nature protection; • continue to extend <u>use of economic instruments</u> for environmental management, on the basis of the conceptual work carried out in the 1990s (e.g. tradeable permits, green taxation); consider mechanisms to achieve better results concerning emissions of NO_x and VOCs and nutrient discharges; • assess further the <u>economic rationale of exempting</u> some emitters from paying the full rate of the CO₂ tax, taking into account the environmental and social implications of these rate differences; • continue to provide <u>environmental information</u> and <u>economic analysis</u> to support environmental policy developments, including energy prices and environmental expenditure.
<i>Water</i>	<ul style="list-style-type: none"> • reduce eutrophication by decreasing <u>nitrogen discharges</u>, particularly from households, agriculture and aquaculture; in particular, strengthen efforts to achieve the North Sea Conference targets; • continue efforts to reduce discharges of oil and other substances from offshore oil and gas operations; • continue to invest in municipal waste water treatment; • continue to reduce the share of the water supply which is of <u>unsatisfactory quality</u>; • introduce <u>pricing</u> of water used in agriculture and industry; install <u>metering</u> for new consumers and progressively introduce it for other consumers.
<i>Waste</i>	<ul style="list-style-type: none"> • intensify efforts to decouple waste generation from economic growth; • enhance implementation of <u>extended producer responsibility</u> schemes in various industrial sectors; • conduct cost-benefit analysis of <u>material recovery schemes</u> and assess their environmental benefits compared to other forms of waste recovery and disposal; • elaborate plans to ensure that <u>treatment and disposal of hazardous waste</u> are organised in an environmentally sound and economically efficient manner, and clearly identify infrastructure needs; • continue efforts aimed at <u>remediating closed landfills</u> and other contaminated sites.
<i>Nature and biodiversity</i>	<ul style="list-style-type: none"> • reinforce and accelerate efforts to <u>extend the area and representativeness of protected areas</u> in mainland Norway, meet adopted targets (e.g. doubling protected areas between 1994 and 2010, creating more nature reserves in forested areas), and link to the Natura 2000 network; complete and implement plans for <u>marine protected areas</u>; • continue efforts to maintain or restore populations of <u>threatened species</u> (e.g. large predators); strengthen efforts to protect <u>wild salmon</u> stocks and their genetic biodiversity; • continue efforts to integrate <u>fisheries management</u> policy with environmental policies, including managing fisheries on a sustainable and multi-species basis; • increase <u>support to local authorities</u> to enable them to face their increased responsibilities in nature and biodiversity management.
<i>Towards sustainable development</i>	<ul style="list-style-type: none"> • take further action to more effectively <u>decouple environmental pressures</u> from economic growth; • monitor progress in <u>sectoral environmental integration</u> and ensure that the targets set in sectoral environmental action plans (e.g. for energy, transport, agriculture, aquaculture, fisheries) are met; • ensure <u>long-term reliability of fiscal policy measures</u> concerning sustainable management of renewable and non-renewable natural resources, as well as the transmission of wealth to future generations (e.g. through the Petroleum Fund, taxation); • review and adjust <u>sectoral subsidies</u> with negative environmental implications, in order to achieve greater economic efficiency and environmental effectiveness; • prepare a national sustainable development strategy.

* These Recommendations were formally approved by the OECD Working Party on Environmental Performance.

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<i>Environmental/social interface</i>	<ul style="list-style-type: none">• continue efforts to maintain and enlarge the national asset base, and to ensure fair and sustainable <u>transmission of wealth to future generations</u>;• continue to give consideration to the <u>distributive implications of using economic instruments</u> (e.g. green taxes, allocation of permits);• seek societal consensus on managing natural resources (e.g. in fishing, forestry, farming) and biodiversity (e.g. with respect to large predators, reindeer herding), giving attention to the concerns of <u>indigenous populations and remote communities</u>;• ratify and implement the <u>Aarhus Convention</u>; introduce the necessary changes to Norwegian legislation concerning access to environmental information, access to courts and participation;• continue to promote <u>Local Agenda 21</u> initiatives and encourage environmentally related co-operation among local communities.
<i>Sectoral integration: energy</i>	<ul style="list-style-type: none">• set clear medium- and long-term <u>environmental objectives for the energy sector</u> and define mechanisms for their integration in energy planning;• set quantitative objectives for the new <u>Energy Efficiency Agency (ENOVA)</u> and reinforce <u>measures to encourage energy efficiency</u>, especially in the residential sector, industry and transport;• take measures to <u>moderate demand for electricity</u> (e.g. review electricity prices, ensure their transparency, etc.);• implement firm and cost-effective measures to reduce <u>NO_x, VOC and GHG emissions</u>, particularly from oil and gas extraction, road transport and ships;• take account of <u>ancillary benefits</u> (e.g. reduced emissions of pollutants other than GHG) in assessing measures to help achieve the Kyoto target.
<i>International commitments</i>	<ul style="list-style-type: none">• set <u>national commitments for reducing greenhouse gas emissions</u>, and develop and implement reduction measures accordingly, independent of the status of the Kyoto Protocol;• elaborate, and implement with resolve, cost-effective <u>measures to reduce national NO_x and VOC emissions</u> (e.g. from offshore platforms, ships, gas-fired power plants and private vehicles), and ratify the <u>Gothenburg Protocol</u>;• take further measures to reduce fishing fleet capacity;• work towards the establishment and implementation of an <u>international system of fisheries management</u> in the North and Barents Seas, which is based on an ecosystem approach and includes precautionary management strategies for specific stocks;• ensure that <u>dismantling of offshore platforms</u> is carried out in conformity with relevant OSPAR regulations.

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