

ENVIRONMENTAL PERFORMANCE REVIEW OF THE NETHERLANDS

EXECUTIVE SUMMARY

The Netherlands, which has a very open economy, experienced rapid expansion during the last ten years. It is the world's sixth largest exporting country, and its gross domestic product (GDP) is the world's 14th highest. The Netherlands has become a hub of international commerce, with a transport infrastructure centred on the port of Rotterdam (the busiest port in the world) and Amsterdam-Schiphol airport.

Very high densities of both population and economic activities have led to very intense pressures on the country's environment. Together with the delicate geographical balance between land and water, these pressures have made environmental protection a matter of serious public concern. Environmental issues have a strong international dimension in the Netherlands, reflecting regional environmental interdependencies (e.g. transboundary air and water pollution, North Sea pollution), regional economic interdependencies (EU membership, the country's role as a gateway to Europe) and global environmental issues (e.g. vulnerability to climate change and sea level rise, the importance of trade and environmental aid).

Since the early 1990s, the Netherlands has made considerable progress in decoupling a number of environmental pressures from economic growth and meeting several of its ambitious environmental targets. This progress reflects the reshaping of the Dutch economy and the strengthening of environmental policies, including in the EU context. Today priority environmental issues include: loss of biodiversity, climate change, over-exploitation of natural resources, threats to human health and external safety, damage to the quality of life, and possible unmanageable risks. Several of these issues reflect pressures on the environment deriving from the Netherlands' development choices, such as intensive agriculture and transport.

It will be necessary for the Netherlands to: i) improve the cost-effectiveness of its environmental policies; ii) further integrate environmental concerns into economic and social decisions; and iii) reinforce its international environmental co-operation on environmental issues. This report examines progress made by the Netherlands since the previous OECD Environmental Performance Review in 1995, and the extent to which the country's domestic objectives and international commitments are being met. It also reviews progress in the context of the OECD Environmental Strategy. Some 52 recommendations are made that could help strengthen the Netherlands' environmental performance in the context of sustainable development.

*Despite a number of
environmental
results...*

In the last ten years the Netherlands has met or come close to meeting a number of its domestic objectives (e.g. concerning SO₂ emissions, toxic air contaminants, groundwater depletion, flood protection, phosphorus concentrations in water, expansion of the ecological network) and international commitments (e.g. transboundary air pollution and North Sea targets). The Environmental Management Act (EMA) provides a framework for co-ordinating environmental legislation, though water, soil and nature management are subject to specific legislation. New regulations establish corporate financial liability for environmental damage. At the central level enforcement staff recently increased by 10%, following regrouping of the environmental, spatial planning and housing inspectorates; the number of inspections has also increased and penal sanctions have been applied. To maintain their incentive function, fine levels have been made proportionate to the size of the company. As a result, compliance levels have increased. Inspection and prosecution pay particular attention to the movement of dangerous goods. Environmental taxes (e.g. on groundwater, landfill) and a regulatory energy tax have been introduced and other taxes are under discussion. Charges apply to point and diffuse water pollution, and producer responsibility has been extended to a range of waste streams. Overall, economic and fiscal instruments are used widely in the Netherlands. A new spatial planning policy to control urban development and protect landscape areas was issued in 2000. Overall, industry has been responsive and often proactive in improving its environmental performance, particularly through environmental agreements (e.g. covenants) and environmental management and auditing; there are also environmental reporting obligations for companies. The customised licensing system introduced in 1995 reflects a shift from regulatory approaches to monitored self-regulation. Environmental agreements, which are more or less binding substitutes for regulation, have been successful in a number of areas in the Netherlands; long-term environmental objectives have been agreed with industry in a series of branch agreements, and the contributions expected from individual companies have

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been included in their operating permits. Flexibility in meeting objectives, and a stable investment context, have made these schemes attractive to firms. The characteristic policy mix of regulation/licensing plus economic instruments plus environmental agreements continues to be productive. The gradual move to de-emphasise environmental agreements and regulation (arising from economic liberalisation and greater European and international integration) and to place more emphasis on economic instruments has merit, especially as it takes advantage of the government's strength in establishing frameworks rather than micro-managing.

*... future
environmental
policies could be
more cost-effective*

However, despite this positive picture the Netherlands has not met several of its commitments or is not on the way to meeting them (e.g. for CO₂, NH₃, NO_x and VOC emissions, nitrogen inputs to water, nature protection, green space in urban areas). Many of the previous National Environmental Policy Plan targets for emission reductions and for environmental quality have been postponed or revised. Water management and nature conservation objectives are being addressed separately, reflecting the institutional setting. As a result, integration of nature and water management initiatives in central and local land use planning (e.g. water areas for flood prevention, green areas for nature conservation) has been weak. Licensing of groundwater abstraction and waste water discharge is not covered by the EMA and has remained separate from integrated air, noise and waste licensing. There is a somewhat unclear split of enforcement and licensing responsibilities among the central, provincial and municipal levels in this relatively small country, though administrative agreements have been signed to enhance co-operation among enforcement partners. Customised licensing (based on overall pollution reduction targets) applying to the 100 top companies (mostly multinational) conflicts with the IPPC logic that requires BAT standards for each individual production process. Fines are too low to prevent illegal traffic linked to international trade (e.g. CITES, Basel Convention). There has been a tendency to focus on fiscal rather than economic instruments, with no air emission charges, user charge levels with little effect on water consumption, and flat rates applied to municipal waste collection charges. Implementation of environmental agreements should be accompanied more systematically by transparency mechanisms and the threat of penalties, such as levying of an energy tax, in cases of non-compliance with targets. The move towards market-based instruments may be difficult to make in all areas. Increased emphasis on market based instruments should not come at the expense of experimentation with other approaches such as labelling and support for eco-design.

*Despite
achievements in
decoupling
institutional and
market based
integration...*

Dutch performance in terms of reducing emissions and environmental pressures over the last decade has been strong. This performance should be seen in the context of sustained GDP growth of 35%, and of liberalisation and greater European and international integration of the country's economy. Overall, pollution abatement and control expenditure has been growing, from 1.9% of GDP in 1990 to 2.6% in 2000. This share, which is expected to remain stable during the next three years based on existing and proposed policy measures, is large by OECD standards and reflects a high level of environmental pressure and readiness to commit resources to mitigation. There is no evidence that this expenditure has affected the competitiveness of the Dutch economy. Concerning institutional integration, there has been good progress with respect to integration of sustainability into the thinking and activities of a range of government and private sector actors (as demonstrated, for example, in the 1997 policy document on Environment and Economy). Considerable reliance is now being placed on some high-level guiding principles set out in the fourth National Environmental Policy Plan (NEPP4), some high-level sustainable development principles, and the concept of "transition management" and "transition processes" within a sustainable development goal-setting and backcasting framework. The characteristically Dutch "polder model" approach of dialogue between the government and stakeholders to develop environmental policy has been successful. There is recognition of the need to address areas in which progress remains to be made, as shown in environmental and sustainable development planning documents. Concerning market-based integration, the Netherlands has expanded its use of economic and fiscal instruments and, overall, is implementing the polluter pays and user pays principles despite the exemption of many companies from environmental taxes (e.g. energy taxes) in an attempt to preserve competitiveness. The recent ecological tax reform represents significant progress, with a shift from taxation of labour and income. The various environmentally related Dutch fiscal instruments now account for 14% of total tax revenue.

... strengthened integration is needed (e.g. in agriculture and transport sectors)

However, decoupling environmental pressures from economic growth has proven elusive, particularly for CO₂ emissions, municipal waste and the impacts of urban sprawl, including continuing pressures on biodiversity. Among other residual problems are the levels of particulate matter and ozone, the backlog of contaminated sites, groundwater quality and noise. Also of concern is the review or postponement of some targets that have been hard to meet (e.g. NO_x and ammonia), as well as the risk that some more difficult targets may not be met. The Dutch Central Economic Planning Agency has noted that goals with respect to the country's manure problem were not met due to a reluctance to implement policy forcefully enough. The general planning approach used in the Netherlands requires a very high degree of co-ordination among national ministries. Environmental plans must be co-ordinated with a number of national sectoral plans, the more so as the Ministry of Housing, Spatial Planning and the Environment is responsible for only some environmental policy areas. Integration of environmental policies into other national policies is laid down in the NEPPs. However, policy integration has not yet been reflected in markedly better environmental performance in key sectors such as agriculture and transport. The high levels of production and consumption of the Netherlands continue to lead to large environmental effects outside of the Netherlands. Overall, the government's goal of reaching sustainability by 2010 appears increasingly difficult to achieve, particularly for the agriculture and transport sectors. Strong and continuing political determination and support by the public will be indispensable in this respect.

The Netherlands has met a number of its international commitments...

The Netherlands has continued to play a leading, proactive role in the development and implementation of international environmental laws reflecting the regional and global interdependencies of its environment and economy. These efforts have been carried out in the interest of the international community, as well as in the Netherlands' own interest. Concerning climate change, the Netherlands was very active in helping to achieve progress towards the entry into force of the Kyoto Protocol. It succeeded in bringing about a relative decoupling of its CO₂ emissions from GDP growth, largely due to a 14% decrease in the energy intensity of the Dutch economy between 1990 and 2000. By significantly reducing emissions of NO_x, SO_x and NMVOCs, the Netherlands has more than met its reduction targets under the Oslo, Sofia and Geneva Protocols to the UNECE Convention on Long-Range Transboundary Air Pollution (LRTAP). It continues active enforcement of marine agreements. It carries out regular surveillance and enforcement in its Exclusive Economic Zone (EEZ) against illegal dumping or discharges from ships. At least 25% of foreign ships calling at Dutch ports are consistently inspected for compliance with MARPOL standards. The country reduced point source discharges of nitrogen and phosphorous to the North Sea to the extent of being on track to meet its North Sea Conference targets. Partly due to a successful environmental agreement with offshore oil and gas producers, the frequency and magnitude of oil spills and flaring have been reduced; fugitive methane emissions have been limited and compliance with OSPAR limits on oil in effluents has improved. Based on its experience with a prior informed consent (PIC) system to regulate exports of dangerous chemicals to developing countries, the Netherlands played a key role in developing the 1998 Rotterdam PIC Convention. It is one of the few countries that consistently meet UN targets for official development assistance; it also meets its own national commitment regarding the environmental component of its ODA.

... but still faces other challenging ones

Despite these impressive achievements, the Netherlands could improve its performance in meeting several international environmental commitments. It failed to meet its national target for stabilising CO₂ emissions at their 1990 level by 2000. The ancillary benefits of domestic climate protection measures were not taken into account when preliminary targets were established for realising 50% of the country's Kyoto commitment through domestic measures. The polluter pays principle (PPP) has not been integrated into early plans to use the Kyoto mechanisms. New reduction targets concerning transboundary air pollutants under the Gothenburg Protocol and the EU National Emission Ceilings (NEC) Directive will require implementation of additional domestic control measures. Stricter standards established in 2000 under MARPOL Annex VI are likely to necessitate tighter control of atmospheric SO_x emissions in the offshore zone. To comply with the EU Nitrates Directive, the Netherlands will need to strengthen control of nitrogen emissions from agriculture. It should accelerate efforts to designate marine protected areas, so as to implement the Habitats Directive fully in its 200-mile EEZ. In line with FAO recommendations, it has attempted to implement vessel decommissioning schemes to reduce fishing capacity but with little success thus far. Shared and straddling marine fish stocks in the North and Wadden Seas need to be restored: many of these stocks are classified as "outside biologically sustainable limits." Progress towards Objective 2000 of the International Tropical Timber Organisation (ensuring that all imported hardwood comes from sustainably managed forests) appears to have lost momentum. While development assistance projects are expected to comply with host country requirements concerning the application of environmental impact assessment, the Dutch government does not require systematic application of EIA for these projects.

Annex: 52 Recommendations*

Environmental management	<ul style="list-style-type: none"> retain and refine <u>quantitative policy targets</u> for reducing environmental pressures, and strengthen efforts to see that they are attained without slippage; enhance the <u>role of provinces</u> as a key level of policy integration, including environmental policy planning, land use planning and water management planning; improve the split of <u>enforcement and licensing</u>, especially at local level, and clarify the <u>responsibilities</u> of the central, provincial and local levels; possibly broaden the scope of inspection and enforcement by the VROM Inspectorate to include IPPC companies; take steps toward implementing the <u>IPPC Directive</u> for large companies, in such a way that emission trading can be applied in the best possible way; reinforce integration of nature and water management objectives in <u>central and local land use planning</u>; establish periodicity in the preparation of land use plans; extend the use of <u>economic instruments</u> (e.g. waste, water and transport management) and their incentive effects, in line with the user and polluter pays principles.
Air	<ul style="list-style-type: none"> continue efforts to reduce <u>emissions of NO_x, particulate matter and NMVOCs</u> (e.g. from transport, energy and industry) in light of persistent problems with concentrations of NO₂, PM₁₀ and ozone in some areas; implement the proposed NO_x emission trading scheme; pursue efforts to reduce ammonia emissions from <u>agriculture</u>; provide <u>small businesses</u> with appropriate enforcement mechanisms to address long-term emission objectives, particularly for ozone precursors and priority substances; continue to work towards increased <u>energy efficiency</u>; expand the use of <u>renewable energy sources</u> (e.g. in municipalities and large firms).
Water	<ul style="list-style-type: none"> strongly pursue <u>implementation of policies</u> to allocate “more space for water”, establish ecological networks and better protect areas at risk (e.g. from floods); in particular, integrate water management, nature management and <u>spatial planning</u>; reinforce actions to combat <u>groundwater depletion</u>; complete and implement comprehensive provincial groundwater plans; further reduce <u>nitrogen loads</u> from intensive agriculture (livestock and crop production) in line with related international commitments (EU Nitrates Directive, North Sea action programme); strengthen efforts to achieve further progress in dealing with <u>emergency overflows</u> from combined sewers; continue efforts to safely dispose of and/or treat <u>contaminated dredging spoil</u>; continue to modernise the <u>institutional framework</u> for water management in line with the EU Water Framework Directive; give more attention to <u>economic analysis</u> of water management measures in different sectors (e.g. municipal, industrial, agricultural); strengthen <u>inspection and enforcement</u> relating to illegal discharges into the sewage system.
Biodiversity, nature & landscape conservation	<ul style="list-style-type: none"> complete establishment of the <u>national ecological network</u> according to targets, taking account of requirements of the EU Birds and Habitats Directives; achieve the target of <u>20 to 30% of natural areas fully protected against acidification and eutrophication</u>, particularly by reducing pressures from agriculture and the waste water industry; reinforce <u>implementation of nature conservation objectives in agricultural policy</u>, particularly by meeting reduction targets for pesticide use, ammonia emissions and desiccation, speeding up farmland conversion in natural areas, and tackling diffuse water pollution by nitrogen compounds; reinforce <u>implementation of nature conservation objectives in water policy</u>, particularly by reducing water pollution by toxic substances, developing connections among water systems and setting ecological quality objectives for water bodies; enhance <u>nature protection in coastal areas</u>, particularly through better control of mud fishing and establishment of marine reserves, in the framework of the OSPAR Convention; strengthen efforts to integrate biodiversity, nature and landscape conservation among themselves and with spatial planning.
Integration economy-environment	<ul style="list-style-type: none"> <u>implement environmental plans</u> and objectives with determination; strengthen <u>institutional integration</u>, particularly to ensure that a sustainable development framework is firmly embedded in central, provincial and local government and across key sectors, notably energy, agriculture and transport; refine the market based instruments and extend the <u>environmental tax system</u>, having regard to simplicity, effectiveness, transaction costs and carrying out cost-benefit analysis; couple the <u>regulatory energy tax</u> with pollutant emissions (carbon tax) and consider its extension to large companies in the case of non-compliance with environmental targets; undertake <u>environmental assessment</u> earlier in the decision-making process to influence choices concerning plans, policies and programmes; extend the use of <u>spatial planning and regulation</u> to serve pollution abatement, nature, biodiversity and landscape conservation as well as risk prevention; maintain investment and efforts in environmental <u>research and development</u>.

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

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Integration social-environment	<ul style="list-style-type: none">• strengthen measures to improve <u>external safety</u> in relation to transport (e.g. air traffic, railways, transport of hazardous substances) and chemical installations;• strengthen efforts to improve the <u>quality of the living environment</u> with respect to noise nuisance, air pollution and access to green areas for recreation, especially in the case of low-income groups;• further maintain a high-quality <u>environmental information base</u> and ensure continuity in environmental reporting activities;• make further efforts to increase <u>environmental awareness</u> and sustainable behaviour, particularly regarding car and energy use;• continue to <u>promote public participation</u> in decision-making and goal-setting processes (e.g. at an early stage), both at national and local levels;• ensure that national environmental policy links up with relevant local <u>sustainable development initiatives</u>;• encourage sustainable development initiatives in the framework of <u>Local Agenda 21</u>, particularly in relation to mainstream local activities (e.g. housing, infrastructure, etc.).
Sectoral integration: transports	<ul style="list-style-type: none">• strengthen or revive efforts to integrate environmental and <u>sustainable development</u> concerns into transport policy;• further internalise externalities into transport operation and pricing: strengthen the use of existing <u>economic instruments</u> and introduce new ones, such as the suggested <u>per-kilometre tax</u> on lorries and cars (with differentiated rates according to time, place and the environmental impact of each vehicle) or other relevant instruments;• work towards eliminating domestic and international <u>distortions in competition</u> among transport modes (e.g. subsidisation, taxation, standards), including within the EU, IMO and ICAO;• pursue efforts to reduce <u>noise emissions</u> from road, rail and air traffic (e.g. emission reduction at source);• urgently define and implement a package of measures to reduce <u>CO₂ emissions from freight and passenger transport</u>;• continue to improve <u>accident prevention and preparedness</u> in the transport of hazardous substances.
International commitments	<ul style="list-style-type: none">• take into account <u>ancillary benefits</u> of reducing SO_x and VOC emissions when assessing the cost-effectiveness of potential greenhouse gas (GHG) reduction measures, and develop means to implement the polluter pays principle through the Kyoto mechanisms;• take steps to ensure full implementation and enforcement of new international commitments concerning <u>port reception and ship-generated wastes and cargo residues</u>;• continue to work in international fora to promote management of <u>shared and straddling marine stocks</u> in the North Sea following an ecosystem management approach;• put an end to <u>illegal trade</u> in ozone depleting substances;• co-operate internationally to develop means of ensuring that <u>timber and wood products imported to the Netherlands</u> originate from sustainably managed tropical and boreal forests;• strengthen and generalise requirements concerning <u>environmental impact assessment</u>, to apply to all major projects financed through international assistance (ODA and non-ODA);• ratify and implement recent international <u>environmental agreements</u>.

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