

BELGIUM

CONCLUSIONS AND RECOMMENDATIONS (see next page)

OUTLINE OF THE REPORT

1. THE CONTEXT

Part I

POLLUTION PREVENTION AND CONTROL

2. AIR MANAGEMENT

3. WATER MANAGEMENT

4. WASTE MANAGEMENT

Part II

INTEGRATION OF POLICIES

5. ENVIRONMENTAL AND ECONOMIC POLICIES

6. INTEGRATED MANAGEMENT OF NATURAL AREAS
AND FOREST ECOSYSTEMS

7. CHEMICAL INDUSTRY

Part III

CO-OPERATION WITH THE INTERNATIONAL COMMUNITY

8. INTERNATIONAL CO-OPERATION

ANNEXES

CONCLUSIONS AND RECOMMENDATIONS*

In a country as densely populated and as developed as Belgium, the environment is exposed to intense pressures from human activities: as much as one-fourth of the territory consists of built-up areas and very dense networks of roads, railways and navigation canals; industry and very intensive animal breeding and crop cultivation impose further pressures on air, soil, water resources and nature. Under such conditions the challenge of making development economically, socially and environmentally sustainable is particularly acute.

In the two decades leading up to 1993, Belgium went through a series of institutional reforms which transformed the country into a federal state made up of three regions and three communities. The uncertainty associated with this long period of change may partly explain why Belgium has not made the same environmental progress as a number of other OECD Member countries. Since environmental responsibilities were clearly defined, however, much work has been carried out to create coherent environmental management frameworks and accelerate efforts to reduce the pollution burden.

In order to catch up on the backlog, the challenge is to: i) achieve and maintain a high level of effort to implement new environmental policies and strengthen environmental infrastructure; ii) further integrate environmental concerns in economic decisions; and iii) meet international environmental commitments.

This OECD report establishes a baseline for assessing future environmental progress and examines Belgium's environmental performance, i.e. the extent to which Belgium's domestic objectives and international commitments are being met, based on environmental effectiveness and economic efficiency criteria. A number of recommendations are put forward that could contribute to strengthening environmental performance in Belgium.

1. **Implementing Environmental Policies**

Environmental reforms

The results of past environmental management, as evidenced by the current state of the Belgian environment, must be qualified as uneven: whereas air quality on the whole is satisfactory and waste management is generally up-to-date, the state of nature and of many water resources is worrisome. A major effort has begun and will need to be sustained to repay the outstanding environmental debt.

A major institutional reform has been implemented, and as a result a modern environmental legislative framework is in place, and the federal and regional administrations are now fully exercising their environmental responsibilities. Federal authorities have important competencies in fiscal policies (e.g. ecotaxes), product standards, radiation protection, trade and international matters, and sustainable development issues (e.g. transport). Well-organised regional environmental administrations have adopted and are implementing advanced environmental policies reflecting different physical and socio-economic conditions. Flanders and Wallonia have adopted comprehensive environmental policy plans based on the pressure-state-response framework and state of the environment reports and covering the major economic sectors and key environmental themes. In the next stage more attention should be given to enhancing the cost-effectiveness of environmental policies in terms of the mix of instruments used for their implementation, the financing of environmental expenditure and further co-ordination among administrations.

A regulatory reform is proceeding. Positive steps have been taken to streamline permit procedures. A single permit approach has been instituted and associated with environmental impact assessment and industrial risk reporting for some large industrial installations. Inspection and enforcement of environmental policies are performed by federal or regional authorities. Courts are giving greater attention to environmental crimes. Belgium has also made good progress in introducing many economic instruments and in increasing the rates of taxes and charges on pollution and water abstraction. The use of ecotaxes to change consumption patterns is a very positive initiative which, however, has met many difficulties in implementation. Financial guarantees have been introduced for solid waste management and to strengthen the liability regime. A number of voluntary agreements are in use and co-operation between administrations and industry is improving. Pollutant release and transfer registers and

* Conclusions and Recommendations approved by the Group on Environmental Performance at its June 1998 meeting.

mandatory environmental reporting are being progressively implemented. Eco-advice is provided to small or medium-sized cities and enterprises. Although environmental data availability and co-ordination have improved, further development and harmonisation across the country of environmental monitoring, indicators and environment-related or "environmentally related" economic information are needed. More goal and performance-oriented environmental management is needed.

In Belgium, expenditure on pollution abatement and control now amounts to about 1.1 per cent of GDP. The financing of public environmental expenditure by environmental taxes and charges has progressed significantly in recent years. Nevertheless, Belgium faces the need to increase expenditure on environment if it wants to meet its domestic objectives as well as its EU and other international environmental commitments. This need partly arises from the limited environmental infrastructure to date (e.g. waste water treatment plants, solid waste disposal and treatment facilities) and, until recently, the limited attention given to nature conservation.

In the Belgian and EU contexts, harmonisation of environmental policies in the three regions is progressing and should help bring about a level playing field for industry. However, improved co-ordination within the federal administration, between federal and regional administrations, and within each regional administration will require further time and effort and political will. In the area of environmental laws and regulations, codification should be continued so as to produce a more coherent legal framework, delineate competencies more clearly, avoid overlaps, and clarify the obligations of all parties, whether public bodies or private entities.

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

- further increase efforts to improve environmental performance in each region, reach national objectives and satisfy international commitments;
- extend the single permit system, with appropriate co-ordination of the authorities concerned;
- strengthen environment inspectorates and the effectiveness of enforcement procedures;
- increase the rates of pollution taxes and charges so as to finance environmental infrastructure in line with the polluter-pays and user-pays principles;
- continue to monitor the state of the environment and collect environmental data from government and private sources within harmonised frameworks providing comparability across the country and including data on expenditure;
- codify environmental laws to improve their clarity and implementation;
- improve co-ordination between administrations dealing with environmental issues, with a view to increasing cost-effectiveness in policy-making and implementation;
- improve information exchange between regional environmental administrations in order to learn from each other's experience, co-ordinate actions and deal more effectively with common problems or problems arising along regional borders.

Air

Overall, good results have been achieved concerning air quality. Most of Belgium's air management objectives derive from various international commitments. Ambient air quality standards are generally satisfied. Since the mid-1980s Belgium has achieved a gradual and significant decoupling of SO_x and NO_x emissions from economic growth due to energy efficiency gains, a switch towards cleaner fuels and nuclear energy, and pollution control measures. Air quality and emission controls have been placed in a coherent management framework through the adoption of regional environmental planning. Monitoring has been improved, emission inventories established and public access to data guaranteed. Inspection and enforcement systems have been strengthened in all three regions. Emissions to air of heavy metals and toxic substances have been reduced significantly and 1999 targets have already been met for some substances (e.g. arsenic, carbon tetrachloride). The objectives of a 1991 voluntary agreement with the Belgian electricity industry were met ahead of schedule with emission reductions, compared to 1980, of almost 80 per cent for SO_x and 42 per cent for NO_x.

Yet there are still a number of air quality problems. Concentrations of particulate matter in urban areas reflect the increasing traffic of diesel-fuelled vehicles and current fuel taxation favouring the use of diesel fuel over petrol. The share of ammonia in acidifying emissions is 29 per cent in Flanders, about as large as that of NO_x, but the problem has not yet been seriously addressed. Summer ozone is a problem in the most densely populated areas and existing measures to reduce emissions of VOCs and several heavy metals and toxic substances will most likely not be adequate to meet 1999 targets. Efforts to improve energy efficiency, particularly in industry, have not been

sufficiently proactive. Environmental and congestion problems caused by the steep increase in road traffic will not be solved without strategic transport planning.

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

- take integrated and cost-effective measures to reduce ammonia emissions from animal husbandry;
- strengthen current efforts to reduce emissions of VOCs and some of the toxic substances included in the agreements of the North Sea Conferences;
- improve energy efficiency, taking a more proactive approach that includes setting tangible targets;
- make greater use of voluntary agreements with industry to reduce emissions and improve energy efficiency;
- give high priority to strategic transport planning including the promotion of public transport for passengers and the development of freight transport by other means than road;
- continue to develop more rational pricing and taxation of transport to help internalise its environmental costs, for instance by raising diesel fuel taxes further;
- improve emission inspections of in-use vehicles.

Water

In spite of its ample rainfall, on a per capita basis Belgium is poor in water resources. Pressures resulting from high population density, industry and very intensive agriculture (animal husbandry and crop cultivation) are correspondingly high. The country is now making a determined management effort to make good the neglect of the past. Its activities are partly driven by EU and other international obligations (North Sea Conferences, OSPAR, Scheldt and Meuse rivers). Much work has been done in recent years to create a coherent water management framework of legislation, institutions, policies and plans. New water pricing and waste water charge and tax systems have been in place since the early 1990s to help finance the investments being made in new sewers and waste water treatment plants. Industrial pollution discharges have been reduced. The 1995 interim North Sea Conference targets for reducing discharges of heavy metals and micropollutants have been partially met.

Although the situation is more favourable in the less densely populated areas, surface water quality in heavily developed areas has remained poor. Aquatic biotopes are impoverished, with a shift from long-lived to short-lived fish species and a loss of diversity among vegetation living at the water's edge. It will be necessary to keep up a large financial effort for quite some time if surface and groundwater quality is to be restored and aquatic ecosystems brought back to health across the country. The level of urban waste water treatment, at 28 per cent, is among the lowest in the OECD and the deadlines of the corresponding EU directive will not be met. Only limited headway has been made in containing the heavy pressures from intensive agriculture; objectives relating to discharges of nitrogen from manure and chemical fertilisers, in particular, are far from being met and problems with drinking water supply, water quality and nature conservation remain. Groundwater resources are threatened by overpumping and, in agricultural areas, show high concentrations of nitrates.

It is therefore recommended that the following proposals be considered:

- strengthen water conservation efforts and reduce groundwater withdrawal by placing greater emphasis on demand management and by involving water utilities in achieving explicit objectives for efficient water use;
- further develop the system of waste water charges to better reflect the polluter-pays principle and reduce cross-subsidisation among users;
- further strengthen efforts to reduce industrial and municipal point source discharges to meet both regional and international treatment requirements, including by attracting private financial means to increase the rate of investment in sewerage and public waste water treatment plants; increase financial and technological efforts in the private sector (industry and agriculture) to reduce pollution at source;
- reduce the nitrogen load to water bodies, particularly from agriculture (commercial fertilisers and manure from intensive animal breeding);
- reduce the contamination of groundwater by pesticides;
- seek to strengthen stakeholder commitment to the integration of water and other policies; explore further integration mechanisms; build on existing approaches to integrated river basin management and formulate clear objectives in each river basin.

Waste

In 1974 Belgium was among the very first countries to adopt specific hazardous waste legislation, and in the mid-1980s waste management began to be tackled with determination. In the decade that followed, further federal and, in particular, regional legislation was passed and data collection was improved; agencies were created and instruments adopted, funding allocated and plans drawn up. Implementation is now in full swing and action can be reported at every stage of the waste hierarchy of prevention, recovery (i.e. reuse, recycling and energy recovery) and safe disposal. Each region is guided in its activities by a detailed multiannual waste management plan that contains many quantitative targets. In Flanders the first signs are appearing that the increase in per capita municipal waste generation, which continued until the mid-1990s, may have been curbed. Co-operation among the various administrations takes place when required. Regional administrations have successfully engaged local government in improving waste management.

Still, much work remains and progress is not uniform across the whole country. There is scope for extending waste prevention efforts. Recycling targets have been met for only some types of materials. Industrial waste management is hampered by insufficient information. Although expenditure on waste disposal has risen in the current decade, comparison with other European countries suggests the effort could be stepped up further. Siting of new landfill sites and incineration plants meets local opposition. The amounts of money so far allocated to cleaning up contaminated sites do not appear sufficient to meet long-term objectives.

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

- extend efforts to reduce waste at source; develop and implement green procurement programmes for government institutions;
- increase the rate of separate collection and encourage markets for recycled products;
- continue efforts to encourage stakeholder (e.g. citizen, industry, NGO) participation in waste management, including with respect to the siting of waste management facilities (e.g. new landfill sites, incinerators);
- examine waste charges and taxes with a view to strengthening implementation of the polluter-pays principle;
- make further efforts to improve policy-relevant information on waste generation and management, particularly concerning industrial waste;
- examine (including by taking a risk management approach) the objectives for cleaning up contaminated sites and the ways and means of meeting them.

2. Integrating Environmental Concerns in Economic Decisions

Environmental conditions and trends are strongly affected by changes in the major economic sectors (industry, energy, transport, agriculture). These changes therefore enhance or undermine the benefits of environmental policies. In order to move towards sustainable development and make policies as cost-effective as possible, environmental concerns must be integrated in economic and sectoral policies and programmes.

Fostering sustainable development

Belgium has incorporated the concept of sustainable development in its legislation and a federal plan for sustainable development is being prepared. Environmental and land use planning at regional and local levels have made progress. Sectoral plans have been drafted and initial measures have been taken. Interministerial integration is making progress. In several areas (e.g. SO_x, NO_x, use of nitrates and phosphate fertilisers) pressures on the environment have been decoupled from economic growth. Greening of government operations has just started.

However, several aspects of economic development are not yet sustainable in practice. Waste production is not yet stabilised and energy consumption is increasing; Brussels still does not have waste water treatment. Open land is disappearing and trends in biodiversity losses have not been reversed. The most troublesome aspects of economic development in Belgium are the very rapid growth in national and international road freight traffic, which is likely to continue for a number of years to come, and the very intensive animal husbandry, which generates very large quantities of nitrogen from manure. Sectoral integration is still weak and priorities seem to be given to economic growth in very traditional terms, with significant negative effects on the environment.

Belgium is committed to implementing the polluter-pays principle and the user-pays principle. Therefore, greater emphasis should be put on “getting the prices right” as an important element of a cost-effective mix of policy instruments. Internalising externalities and reducing subsidies, cross-subsidies and other forms of financial aid should help in implementing these principles more fully. Appropriate pricing (e.g. for water services and energy) and the increasing use of economic instruments should help shape more sustainable consumption patterns. This approach is consistent with the aims of reducing the public deficit and the cumulated public debt. An even greater emphasis should be given to the greening of fiscal measures.

Physical planning is now carried out more rigorously, but land use remains affected by urban sprawl and very dense transport networks. Land use planning instruments and the use of EIA should play an important role in the environmental management of the country. However, in many cases environmental concerns have not been part of local physical planning decisions, which have mostly had a traditional economic development bias.

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

- work with all government levels concerned towards coherence of sustainable development policies between the regional environmental plans and the Federal Plan for Sustainable Development; consult social partners and other stakeholders in this process; give high visibility to progress made;
- set federal and regional quantitative targets to meet national and international commitments and specify the responsibilities of individual economic sectors;
- increase the use of economic instruments, in line with the polluter-pays principle and the user-pays principle;
- further examine fiscal measures, including budgetary constraints and taxation principles, which increase pressure on the environment, and seek to introduce a green fiscal reform in support of sustainable development policies;
- integrate environmental concerns more fully in all physical and land use planning, bearing in mind the need to protect nature and the landscape;
- increase the effectiveness of EIA procedures in the granting of licences;
- make greater use of “green” procurement methods and encourage more environmentally friendly operation of public buildings;
- integrate environmental policies more closely with transport and agriculture policies so as to achieve more sustainable development;
- continue to stimulate changes in consumption patterns through appropriate pricing and provision of information on products and services.

Integrated management of natural areas and forest ecosystems

Human activities have fundamentally modified nature in most parts of Belgium, so that remaining “natural areas” are in fact semi-natural. Competing claims for remaining open space make it difficult for nature to retain a foothold. Having been inadequate in the past, planning efforts to halt and reverse the decline of nature are now being stepped up: in recent years environmental strategies, including biodiversity and sustainable forestry objectives, have been adopted and are being implemented. Regional nature conservation plans are in preparation in the three regions, and many municipalities are beginning to implement the local nature development plans they recently adopted. Plans for ecological networks covering the entire country have been worked out, are to be incorporated in local land use plans, and have the ambition to create new habitats. Twenty per cent of Belgian territory is still covered by forests, and forestry is a significant economic activity in the south-east of the country; forests have long been managed for sustained yield and the standing stock continues to increase. New sustainable forestry management practices are now being implemented with respect to publicly-owned forests and aim to reconcile the ecological, social and economic functions of these important ecosystems.

According to available evidence, past trends of habitat degradation and loss of biodiversity have not been reversed, although there are indicators of recovery. Financial efforts for nature protection have not been commensurate with the intense pressures on nature from urbanisation, transport and agriculture. Much that remains of great natural value is under threat from new development. Legal instruments to protect sensitive areas have been in place for 25 years, but the area protected remains small, fragmented and unrepresentative of the main ecosystem types: scarcely 2.6 per cent of the national territory is protected in terms of IUCN classification. Outside forests and protected areas there is little space for wild nature. Partly due to the absence of a long tradition of land use planning, settlement patterns have become very scattered and the land is extremely fragmented by the dense networks of transport infrastructure. Despite the measures taken, little progress has so far been made in containing the strong

pressures exerted by intensive cropping and animal husbandry on aquatic and terrestrial ecosystems. Further, 80 per cent of wetlands have been lost, and coastal waters are threatened by eutrophication. Public support for nature conservation needs to be encouraged in order to build a strong local constituency for implementation of the plans for ecological networks. Policy instruments that encourage private land owners to protect nature and biodiversity on their properties need to be further developed.

It is therefore recommended that the following proposals be considered:

- give higher priority to nature conservation;
- urgently complete and implement specific nature protection plans and biodiversity strategies, including measurable objectives and deadlines;
- expand protected areas on the basis of a strategic overview of sites of high ecological value; make protected areas more representative, e.g. by protecting permanent grasslands;
- enhance the protection of ecological values outside protected areas and forests;
- strongly implement the provisions for ecological networks at the local level through land use planning procedures;
- devise economic and other instruments to encourage farmers and other private owners to protect nature on their property (including forested land, small landscape elements);
- continue raising the nature awareness of the public and of local bodies;
- further pursue the efforts already begun to improve the knowledge base with respect to biodiversity and nature conservation;
- continue to implement sustainable forestry management on the basis of already accumulated experience, with due regard to the economic, ecological and social functions of forest resources;
- adopt and implement proposed legislation aiming to protect marine species and habitat.

Sectoral integration: the chemical industry

The chemical industry is one of the most important and most rapidly growing industrial sectors in Belgium. It is largely dominated by investment on the part of multinational enterprises and most of its products are for export and most installations are located in Flanders. As a result of strict laws and regulations and from a genuine commitment to environmental protection, the chemical industry has considerably reduced its emissions of the main pollutants to air and water and its production of waste, while its energy consumption and waste per unit of output have also decreased. In spite of large environmental investments, the chemical industry is growing steadily and its competitiveness has not been affected. Regulation of the industry is based on licensing of installations, use of EIA, reporting requirements, and close supervision by public authorities. Information to the public is extensive and public participation in the licensing process is well-organised. The number of chemical accidents has decreased significantly. The liability regime has been strengthened. Many voluntary agreements have been adopted. The industry has promoted a responsible approach to environmental protection and has convinced its members to implement it. The industry pays environmental taxes based on the use of resources and on the externalities produced, which contribute to finance pollution control programmes. In addition, it pays administrative fees which finance control activities by public authorities. High risk facilities are under close scrutiny and physical planning measures are implemented to protect the surrounding population. Special financial measures are taken to cover the cost of remediation of disposal sites containing toxic waste.

Concerning chemical products management, progress has been made towards full implementation of EU directives and regulations. Consumption of pesticides grew in the 1980s and has stabilised in the 1990s at a level higher than the EU average. Strict regulations to protect workers exposed to pesticides have been implemented. A few ecotaxes on pesticides are in place and new ecotaxes on chemicals are being developed.

Although the results achieved in the chemical industry are striking, there are still problems which need to be addressed. This industry consumes more water and emits more NO_x and CO₂ than ever before. There is a lack of clear targets to be met in each region so as to achieve overall sustainable development and meet the country's international environmental commitments. The division of responsibilities with respect to chemicals and effluents is a source of delays and difficulties in the chemical industry as a whole. Lack of uniformity in rules applying to the industry inside Belgium is a source of discrepancies in environmental expenditure. Inspectorates could be strengthened so as to better control toxic substances. The adoption of a new framework law on product standards could help Belgium transpose EU directives more rapidly and exercise better supervision in this area.

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

- seek greater harmonisation of environmental constraints on the chemical industry in the different regions, in order to provide a level playing field while increasing environmental protection throughout the country;
- increase co-operation between industry and public authorities so as to provide mutually comparable country-wide data on pollutant emissions, waste inventories, stocks of hazardous materials, and sales, imports and exports of hazardous products;
- set up regional objectives for emissions by the chemical industry and specify goals for achieving zero emissions;
- improve the administrative framework for the control of chemical products in order to improve co-ordination between public authorities, and streamline procedures for transposing EU directives;
- seek reduction of the use of pesticides;
- adopt and implement the draft framework law on product standards;
- reorganise and strengthen the inspectorate for monitoring compliance with regulations on the marketing of chemical products and ensure coherence with regional environmental inspectorates.

3. Meeting International Environmental Commitments

Belgium has always promoted international co-operation on environmental issues, but during the transition phase greater attention has been paid to domestic institutional issues than to new international initiatives and commitments. Belgium has a very open economy and seeks internationally agreed rules to protect the environment at the domestic and international levels and to avoid distortion in international trade.

Belgium is exposed to transfrontier pollution originating in neighbouring countries and is also a source of transfrontier pollution. It has carried out a successful programme of bilateral co-operation on local issues and has finally agreed to a system of international agreements to solve issues related to the quality and quantity of the waters of the Scheldt and the Meuse. The quality of the Scheldt and the Meuse has already improved. Releases of several pollutants to the North Sea have been reduced in line with agreed targets. Disposal and incineration of hazardous waste at sea have been banned. Emissions of SO_x have been drastically reduced. An ambitious target for CO₂ emissions in 2000 was adopted and a plan to achieve it was developed. Owing to the use of voluntary agreements, consumption of ozone-depleting substances was reduced ahead of schedule. With respect to the Biodiversity Convention, Belgium created one of the first Internet sites containing most of the biodiversity data available in the country. Belgium also supports sustainable development activities at the federal and regional levels. It is promoting international legal instruments to protect the environment through commonly agreed rules.

While Belgium has made very significant progress over the last ten years, there are nevertheless areas where greater efforts would be needed to meet its EU and other international commitments. Implementation of all EU directives, in particular those concerning nitrates and urban waste water, is a major challenge in both political and financial terms. Phasing out priority hazardous substances and meeting the North Sea targets for all such substances will require greater efforts. Concerning marine pollution, many agreements still need to be ratified in order to protect Belgian interests and promote better emergency preparedness. Road traffic in Belgium is growing at a greater pace than GDP, leading to increases in NO_x emissions. Concerning climate change, actions to reduce CO₂ emissions are limited and are not adequately supported by social partners; the stabilisation target set for 2000 will not be reached, as many of the measures foreseen have been implemented partially and with some delay; a new, more realistic programme to reduce GHG emissions needs to be prepared in order to encompass all GHG gases and implement commitments made at Kyoto. Aid to developing countries should have increased, but has actually decreased; environmental aid is quite limited and there is little environmental assessment of aid projects.

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

- seek early ratification and implementation of recent international environmental agreements (Annex III);
- further streamline the process of co-ordinating work on international issues and achieve a greater sharing of tasks among the many administrations concerned in order to avoid unnecessary duplication of international activities;
- provide financial means for international co-operation to reflect the priority given to this matter;

Bilateral and regional issues

- further develop modalities with neighbouring countries to address environmental issues in border areas (e.g. EIA and hazardous facilities);
- develop closer co-operation in the management of the Scheldt and Meuse basins;
- pay greater attention to issues related to NO_x emissions to air and take measures to alleviate the environmental effects of rapid growth in transport activities;
- continue the programmes aimed at reducing pollutant releases to the North Sea by increasing domestic waste water treatment and reducing agricultural run-off;

Global issues

- implement within the EU context realistic and effective greenhouse gas reduction programmes with quantified targets at national and regional levels, provide the means to achieve these targets, and adopt related mandatory measures at all levels;
- take concrete measures to monitor illegal traffic in existing CFCs and movements of hazardous waste more closely;
- develop and implement national, regional and local plans for sustainable development;
- develop suitable legal instruments to implement the principles included in the Rio Declaration in areas such as liability and greater use of EIA;
- increase environmental protection activities in the framework of official development