Environmental Balance 2003

Environmental Assessment Agency

National Institute for Public Health

and the Environment

with

Transport Research Centre (AVV)

Alterra

Statistics Netherlands (CBS)

Netherlands Bureau for Economic Policy Analysis (CPB)

Netherlands Energy Research Foundation (ECN)

Royal Dutch Meteorological Institute (KNMI)

Agricultural Economics Research Institute (LEI)

National Aviation and Space Exploration Laboratory (NLR)

National Institute for Coastal and Marine Management (RIKZ)

National Institute for Inland Water Management

and Wastewater Treatment (RIZA)

Netherlands Institute for Spatial Research (RPB)

Social and Cultural Planning Office (SCP)

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Environmental Assessment Agency

Foreword

Each year the Netherlands Environmental Assessment Agency at the National Institute for Public Health and the Environment (RIVM) publishes an Environmental Balance, a statutory task set down in the Environmental Management Act. The Environmental Balance contains a description of the trends in the state of the environment in the Netherlands and of the effectiveness of the policies pursued. The Environmental Balance 2003 states the degree to which targets for a large number of environmental problems are being met under currently adopted policies and the costs of these policies to government and society. In addition, the Environmental Balance 2003 examines the environmental impacts of traffic in the urban environment, of agriculture and the rural environment and of climate change. Special attention is paid to the Dutch environment and Dutch environmental policies in a European context.

The Environmental Balance 2003 will be available from mid May in book form (in Dutch) and can also be found at www.milieubalans.nl. A detailed quantitative statement of the new emission figures and a large number of other environmental indicators will be available from September in the Environmental Compendium (in Dutch) – a joint publication by RIVM and Statistics Netherlands (CBS) – at www.milieucompendium.nl.

This summary can also be found on the Internet at www.rivm.nl/environmentalbalance. The full texts of the Environmental Balance 2001 and the Environmental Compendium 2001 are available in English on the same site.

The Environmental Balance is compiled in collaboration with many other research institutes and policy assessment offices. These are listed on the title page. Data have also been made available by the Emissions Registration, a broad coalition of organizations under the auspices of the Housing, Spatial Planning and Environment Inspectorate.

The director of the Environmental Assessment Agency – RIVM,

Prof. N.D. van Egmond

Choosing between national and European environmental policies

From now on the Environmental Balance will be published in May to inform the environment minister's defence of policy in the Second Chamber of Parliament. The environment in the Netherlands is cleaner as a result of environmental policies. Nevertheless, many objectives are not being met. The Netherlands can make more environmental improvements with less money by making a balanced choice between policies made in the Netherlands and those made in the European Union.

From Policy Budgets to Policy Accountability

Table 1 Environmental trends, achievement of policy targets for 2010 and budgeted expenditure on the environment and nature (in millions of euros, 2003 prices).

Theme	Trend 1985-2002	Target achievement	National budget 2003-2007
Domestic climate			3360
Climate: 'Kyoto instruments'	-		
Renewable energy			
CO_2 footprint/dematerialisation		-	
Emissions of NO_x, SO_2, VOC			190
Emissions of NH_3			
Deposition of N/acid on nature			
Air quality			
Nutrient loss from agriculture			470
Nitrate concentrations in groundwater			
Pesticides			
Surface water quality			
Noise			730
External safety			20
Soil remediation			1450
Waste management			10
Organic farming			55
Agricultural nature management			125
Acquisition and layout of the NEN			850

O: International obligation

The colours in column 2 indicate:
- green: reduction in environmental pressure and/or improvement in environmental quality
- yellow: more or less the same
- red: increase in environmental pressure and/or worsening of environmental quality

The colours in column 3 indicate:
- green: targets are expected to be achieved under currently adopted policies
- yellow: judgement not yet possible
- red: targets are not expected to be achieved under currently adopted policies

A cleaner environment, but many environmental targets remain out of reach
The implementation of environmental policies is reducing pressures on the environment (air, water, soil) or stabilizing them (greenhouse gases, noise). Although progress is being made, many targets will not be achieved or are unlikely to be achieved under currently adopted policies (*table 1*). The remaining 'policy gaps' – the estimated exceedances of the targets in 2010 under the current policies – are, in order of increasing size, for acid deposition, local air quality, transboundary air pollution, noise and external safety. The targets to be achieved for nutrient inputs from manure will depend heavily on decisions to be taken by the European Court of Justice and the European Commission in 2003 on the interpretation of the Nitrate Directive in Dutch legislation.

Under currently adopted policies about 20% of the total nature area will be protected against lowering of the water table, eutrophication and acidification in 2010. The Kyoto targets can be seen as a first modest step towards the protection of the global climate system.

Government expenditure on the environment falling
The budgets of various government departments show that government expenditure on the environment has fallen since 2002. In 2005, expenditure on the environment will account for 1.3% of the national budget; in 2002 this was 1.5%. Climate policy is taking up an increasing share of the environment budget, accounting for 30% in 2002.

Towards a sustainable agriculture and energy economy
New products, production techniques and sales and distribution structures in agriculture and energy are proving their worth in relatively small but gradually expanding markets (*figure 1*). Government policy has stimulated the growth of these new markets. Policies in the form of production payments (renewable energy, agricultural nature management) and conversion grants (organic farming) are expensive or ineffective in bringing about a *substantial* increase in market share. This requires the use of other

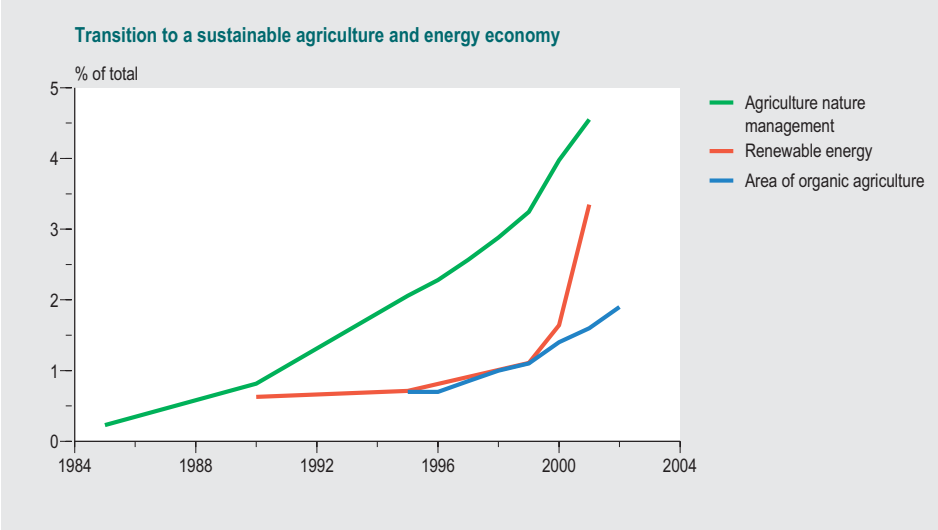

Figure 1 Some new developments in agriculture and energy supply as a percentage of agricultural land and energy supply.

instruments. To obtain the required level of public support for these a clear description of objectives *and* means (funds, products, production techniques) for developing a sustainable agriculture and energy economy is needed. This is also important for the Netherlands' strategic interests in this area in European policy making.

Traffic and the living environment

Growth in traffic not checked, but redirected

The growth in traffic is putting a heavy burden on the natural environment and the quality of the urban living environment, both in the Netherlands and abroad. The

Noise can be controlled more cheaply

Recent measurements on the A13 motorway at Overschie (Rotterdam) show that lowering the speed limit to 80 km per hour reduces the noise levels experienced by residents by about 3 decibels. This effect is equivalent to halving traffic levels with no reduction in speed. Besides speed limits, European Union (EU) agreements on the introduction of quieter vehicles (particularly tyres) are also cost effective. So far, European agreements in this area have not been particularly stringent.

amount of road traffic has risen by about 50% over the last 16 years. A third of the increase in passenger car traffic is due to the growth in the population and two-thirds is because more people are driving more on more roads. Goods traffic has risen sharply too. Goods are transported more frequently and over longer distances, encouraged by low transport costs. The prices policy pursued since 1990 (including fuel duties) has restricted growth in car use by 3%; growth in fuel consumption has been cut by 7–8%. Making car use more expensive in selected areas and at specified times, and according to the environmental performance of vehicle, is cost effective because it can contribute to a cleaner *and* more accessible living environment.

A cost effective environmental policy requires stricter European standards for cars

Despite the sharp rise in traffic levels, road transport has become cleaner, except for CO_2 emissions. Nevertheless, road traffic in Europe puts a heavy burden on the natural environment and the quality of the human living environment. Traffic is the dominant source of noise nuisance, air pollution and acidification and is making a growing contribution to greenhouse gas emissions. Many technological solutions are available for making passenger cars, goods vehicles and buses cleaner, more efficient, quieter and safer. Vehicle emission standards have demonstrated that European regulations can be highly effective in getting clean cars onto the market. The introduction of clean cars can be regulated through directives or emissions trading and could be a joint strategic item on the EU agendas of Dutch ministries and government ministers.

External safety is a matter of clear choices

Money is available for resolving specific bottlenecks, such as fireworks companies and the ending regular chlorine shipments by train. Nevertheless, current funding and policy instruments are insufficient to achieve the targets for external safety in 2010. Clear choices between safety and economy have to be made, particularly when both the public interest and the risk associated with the activity are great, as in the cases of Schiphol and LPG stations. The choice is either to accept a higher risk of accidents or to impose a land use planning solution or restrict the activity. The latter option incurs significant social costs.

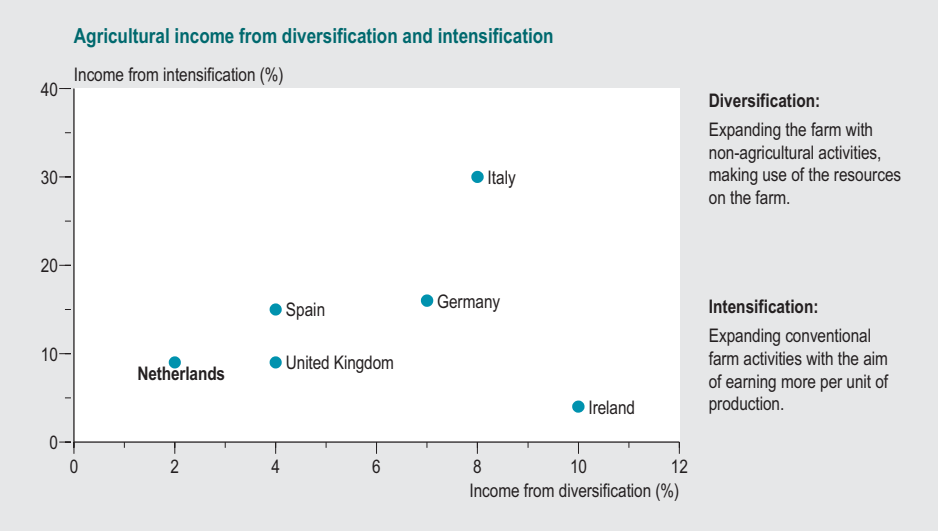

Figure 2 Incomes from new activities in a few EU countries (source: van der Ploeg et al, 2002).

Agriculture and rural areas

European policies require continuing environmental improvements in agriculture

The environmental impact of agriculture is declining under the influence of European and Dutch environmental policies. Nutrient management projects reveal that the manure standards can be met with little or no negative financial consequences for farmers. European regulations will probably further raise the environmental standards required of Dutch agriculture, possibly as early as 2003 if Brussels demands an extension of the MINAS minerals accounting system. In addition, there is the Water Framework Directive, which is mandatory. Given the major impact this directive could have on Dutch farming in the long term, an early political examination of the environmental, social and economic consequences of the directive is advisable.

Diversified agriculture: incomes still low

New agricultural activities, such as agricultural nature management, agrotourism and organic farming, make little contribution to agricultural incomes and less than in other EU countries (*figure 2*). Given the high cost of land and labour, farmers will only be prepared to take up new activities if they can generate a considerable income. Each year about 3% of farmers and growers close their businesses and the remaining farms grow in size.

More European money for rural development

The proposed reform of the EU common agricultural policy gives member states greater opportunities to use EU money for rural development and environmentally friendly farming. Possibilities already exist, but the Netherlands makes little use of them.

Agricultural restructuring and the National Ecological Network in difficulties
The regions with sandy soils in the south and east of the Netherlands contain concentrations of intensive livestock farms. These areas are to be restructured to reduce the vulnerability of livestock to diseases and to improve the quality of nature, the environment and the landscape. This process and the creation of the National Ecological Network are now both under severe pressure because of a shortage of funds. Despite the lack of clarity on the financing of the restructuring operation, the Cabinet is sticking to an implementation period of twelve years (2004–2015).

The target of completing the NEN in 2018 also still stands. When drawing up the details of the restructuring programme particular attention must be paid to implementing European obligations, such as protected areas for species under the Birds and Habitats Directives and the consequences of the EU decisions on Dutch manure policy to be made in 2003.

Climate

The effects of climate change are becoming visible
Changes in the climate are becoming clearer and their impacts on animals and plants in the Netherlands and Europe are increasingly visible. The observed warming of the earth over the past 50 years is probably caused by an increase in the greenhouse effect due to human activity. In its latest climate scenarios for the Netherlands, the Royal Dutch Meteorological Institute (KNMI) anticipates a rise in the number of extreme weather conditions and high water episodes. Dutch water management policies for the 21st century are already being adjusted to meet the future consequences of a changing climate.

Government pays for climate policy

Central government bears the main costs of Dutch climate policy for reducing emissions both at home and abroad. This is in contrast to the financing of policies to tackle other environmental problems. Climate policy will be more efficient in 2003; 500 million euros will be saved each year by adjusting subsidies for energy saving and green electricity. These cuts will have hardly any negative environmental consequences.

European emissions trading slows down fall in Dutch CO_2 emissions

Half of the Dutch government's CO_2 reduction targets are to be achieved abroad through the Joint Implementation (JI) and Clean Development Mechanism (CDM) agreed at Kyoto. Good progress is being made towards achieving these objectives. The other half of the Dutch climate policy is geared to reducing emissions in the Netherlands. As things stand at the moment a European system for trading in emission rights will be introduced in the short term (2005). The Cabinet states that this will create a new situation in which there will no longer be a strict division between action taken at home or abroad.

Because Dutch companies are already energy efficient (*figure 3*) additional measures are relatively expensive. This makes it attractive for Dutch companies to buy cheaper reductions in other EU countries by trading in emission rights. If this practice becomes widespread among Dutch companies less than the 50% of the domestic reduction targets will be achieved. This share could soon rise again if the EU decides to link the emissions trading directive to the JI and CDM Kyoto mechanisms.

The influence of international decision making on Dutch climate policy is rising rapidly. As a consequence, the shaping of national climate policy ambitions will rely increasingly on Dutch environmental diplomacy in Brussels and elsewhere.

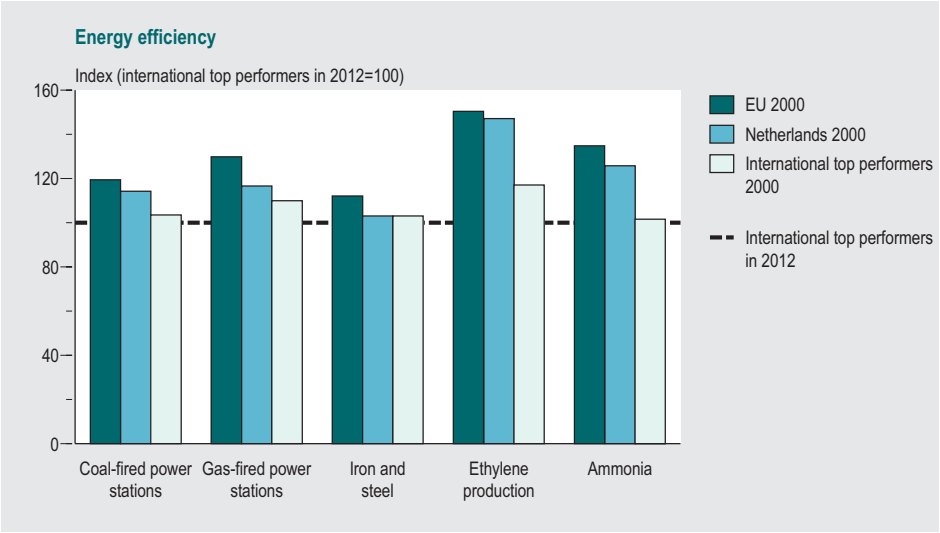

Figure 3 Energy efficiency index for the Netherlands, the EU average and the international top performers in five sectors in 2000 (Ecofys, 2003; Beer, 1999).

The Netherlands in the European Union

Dutch nature exposed to relatively heavy pressures

The Netherlands has the highest density of people, industry, livestock and traffic in the EU. Much of the resulting environmental pressure is compensated for by technological measures more advanced than the EU average (*figure 4*). The Netherlands is

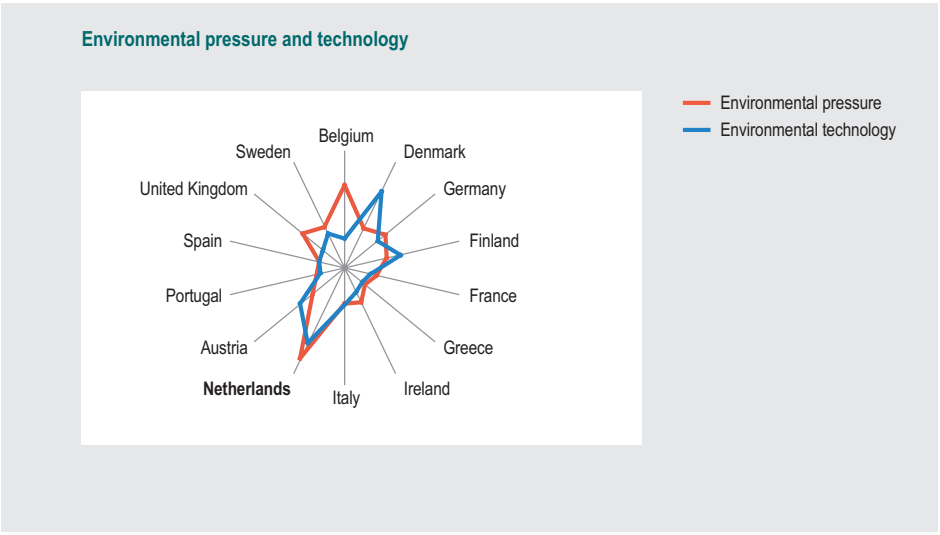

Figure 4 Indication of the environmental pressure and environmental technology of the EU-countries.

one of the top EU performers in materials recycling, the energy efficiency of big companies and the purification of air and water. This is why people in the Netherlands are not exposed to higher than average environmental risks. The excess loads of acid, nitrogen and phosphate in soil, groundwater, surface water and natural habitats in the Netherlands are, however, the highest in Europe. It is mainly in these areas that the Netherlands has difficulty in meeting its EU obligations.

Towards a balanced Dutch strategy in Brussels

The Netherlands is still among the leading European nations in implementing environmental policies. Much of the additional environmental pressure arising from the high densities of people, industry, livestock and traffic in the Netherlands is cancelled out because the Netherlands adopts more environmental regulations than the average for the EU. The Dutch lead in taking environmental measures is becoming smaller, though. On the one hand, European environmental regulations are bringing the countries that lag behind into the main body; on the other hand, the Netherlands is allowing itself to 'slow down' and concentrate on meeting its EU obligations. In the policy document *Vaste waarden, nieuwe vormen* the Dutch Cabinet has indicated its willingness to pursue a robust international environmental policy. This requires a balanced Dutch strategy in European policy and decision making, which can raise the effectiveness and cost efficiency of Dutch environmental policy.