THE NETHERLANDS

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1 Introduction

Together with several other northern European countries, the Netherlands is seen as one of the leaders in innovative environmental policy. Unfortunately, the actual policy results do not always justify this reputation. Recent signs suggest however that the Netherlands is beginning to practise what it preaches. One notable development is the incorporation of the findings of the report "Our Common Future" into a National Environmental Policy Plan. Another is the renewal of relationships between environmental authorities and their target groups, resulting in the establishment of covenants and other voluntary agreements. This renewal has also been a source of inspiration for the fifth environmental action programme of the EU.

Over the past twenty years Dutch environmental policy has undergone a radical reassessment: the original and, with hindsight, rather naïve belief that the pollution problem could be resolved within a single decade (Staten Generaal, 1972) has made way for nothing less than the aim of bringing about drastic economic reform in order to achieve global "sustainable development". In both cases, the stated objective far outstrips the government's resources to realise it. The difference is that we are now more aware of this fact.

The next section describes the development and perception of environmental problems. Section 3 looks at various aspects of Dutch environmental policies, while section 4 discusses Dutch capacity to support these policies. By way of conclusion, the results of the policies and future expectations are set out in section 5.

2 Environmental Quality

This section deals first with the most important environmental problems affecting the Netherlands, and then moves on to discuss the various "themes" surrounding Dutch environmental policy. For Dutch environmental policy is not compart-

mentalised according to affected media (water, soil or air) but is formulated and implemented according to an integrated thematic approach. The use of environmental themes provides clearer insight into the causes and effects of complex, interrelated environmental problems.

2.1 Environmental Problems in the Netherlands

One of the biggest and most typical environmental problems in the Netherlands is the manure issue. Dutch livestock production (pigs and chickens) is extremely intensive, particularly in areas with sandy soil. The result is an excessive availability and use of manure and, since the latter is being progressively phased out by law, a consequently gigantic manure surplus. In 1986 manure production reached its peak, with excretion levels of 713 million kg of nitrogen and 273 million kg of phosphate. This represents more than sixty kilos of pure manure per inhabitant! Ammonia emissions from manure are a prime cause of acidification in certain ecologically vulnerable areas. Excessive use of manure both in the past and present has also affected some ground water reserves and is threatening the quality of many others.

Another serious environmental problem is soil pollution. More than 100,000 sites have already been found to be so severely polluted that soil clean-up operations are required. In a densely populated country like the Netherlands, noise is inevitably a serious nuisance factor, while the processing of large quantities of solid waste also constitutes a major problem. The national production of household refuse is incidentally considerably higher than in the rest of Europe, not only per square kilometre but also per inhabitant. Although water quality in the large rivers has clearly improved, the many years of poor quality have led to severe pollution of the underwater soil in many locations. Acidification (due to road traffic, electricity generation, industry and agriculture) and desiccation (mainly due to water extraction for agriculture) threaten the quality of natural areas. Cities, industrial estates and roads are steadily encroaching upon the countryside with serious disruptive effects. In addition, the Netherlands is directly and indirectly a major source of environmental pollution at European and global level.

2.2 Changing the Burden

Climate change. The theme "climate change" can be assessed according to two indicators, namely one for the sub-theme "climate change due to greenhouse gas emissions" and one for the sub-theme "depletion of the ozone layer".

In 1970 CO₂ emissions amounted to roughly 143 billion kg. Around 1978 these emissions peaked at 197 billion kg. After falling in 1980 to about 150 billion kg, CO₂ emissions started to rise once more, to approximately 184 billion kg in 1992 (RIVM, 1991: 22), only to fall back again in 1993 to the 1990 level of 182 billion kg (OECD, 1995: 72).

The environmental impact of Dutch use of ozone-depleting substances decreased by 68% between 1980 and 1993 (Ministerie van Volkshuisvesting, 1994), partly as a result of more stringent international agreements. In 1992 the total volume of CFCs ran to 5,415 tonnes as opposed to 14,019 tonnes in 1986. The volume of halons amounted to 1,110 tonnes in 1992, against 2,586 tonnes in 1986 (OECD, 1995: 187).

Acidification. The decrease in average deposits of acidifying substances on the Netherlands in the period 1980-1993 (37%) resulted mainly from the reduction in SO₂ emissions in the Netherlands itself and surrounding countries. The emission of SO₂ due to incineration (i.e. excluding process emissions and road traffic) declined from 662 million kg in 1970 to 372 in 1980, and to 135 in 1991. The reduction in the 1970s was caused primarily by the increased use of natural gas, while the decrease in the 1980s was due mainly to the use of low-sulphur coal and flue gas desulphurisation in the power generation sector. Substitutions of natural gas for oil in the industrial sector and from high-sulphur crude oil to residual chemical gas in refineries also made their contributions (OECD, 1995: 57). In 1990 65% of SO₂ emissions were caused by incineration processes (CBS, 1992: 115).

Between 1980 and 1991 NO_x emissions fell by a mere 8%. This decrease was partly attributable to the reduction in NO_x emissions from passenger cars since 1988. It is worth noting, however, that between 1970 and 1980 NO_x emissions from road traffic jumped from 147 to 269 million kg.

Discharges of NH₃ fell by 32% between 1980 and 1993, thanks to the increasing use of low-emission fertiliser and the covered storage of manure from 1992 onwards (Ministerie van Volkshuisvesting, 1994: 73).

The manure problem. Between 1985 and 1990 the infiltration of nitrogen into surface water fell by only 3% between 1985 and 1990 (RIVM, 1993: 88-95). Industrial discharges into surface water were reduced by 25% in this period. This improvement was partially cancelled out by an increase in pollution from agriculture.

The pollution of surface water through phosphor decreased by 20% between 1985 and 1990. Within this period infiltration of phosphor into surface water decreased from 33 million kg to 25 million kg. Here too, the reduction in emissions was to some extent neutralised by increased agricultural pollution.

Annual accumulation of phosphor in Dutch soil (and ground water) has fallen gradually from 166 million kg in 1980 to 88 million kg in 1990. However, total phosphor stocks in the soil are still continuing to grow.

The dispersion of waste materials. In 1993 the dispersion of agricultural pesticides had decreased by 43% relative to 1980, partly thanks to the sharp fall in pesticide sales. The decrease in the spreading of other pesticides between 1984 and 1992 is estimated to be 44%. The risks resulting from the dispersion of priority substances were reduced by about 48% in the period 1985-1992. Lead emissions from road traffic amounted to roughly 2.6 million kg in 1975. At the end of the 1980s, the level had fallen to about 0.39 million kg (Adriaanse, 1990: 264).

Furthermore, industrial discharges of heavy metals into surface waters were reduced from a total of about 2,000 tonnes a year in 1970 to about 200 tonnes a year in 1989. The annual average dispersion of heavy metals in surface waters has decreased sharply during the past twenty years, but still exceeds water quality objectives to a greater or lesser extent at most sampling sites (OECD, 1995: 39-40).

Waste removal. The objective of the Dutch government in this respect is to minimise the quantity of waste that needs to be incinerated or dumped, and to promote waste prevention and the re-use of waste materials.

A total of 5.2 million tonnes of waste was generated in the Netherlands in 1990. In the early 1970s about 3 million tonnes of household refuse was produced. By the early 1990s the figure had risen to 4.5 million tonnes. Hazardous waste volumes increased from 287,000 tonnes in 1986 to 1,193,000 tonnes in 1992. This was partly due to improved waste separation practices and changes in hazardous waste definition, but partly due to economic growth (OECD, 1995: 77).

Relative to 1980, the amount of solid waste in landfills had fallen by 19% in 1993, while the level of household refuse in landfills decreased in the same period also. This can be explained by the increase in separate collection of vegetable, fruit and garden waste. The separate collection of bio-waste for composting started in the late 1980s, became obligatory for municipalities in 1994, and now applies to 61% of households. The amount of bio-waste is rapidly increasing, from 320,000 tonnes in 1991 to 620,000 tonnes in 1992 and is expected to reach 1 to 1.36 million tonnes by 1995. In the case of other waste categories too, separate collection is proving similarly successful. In 1992, more than 75% of glass and more than 65% of paper in household waste was collected separately. Paper/cardboard and glass recycling rates in the Netherlands are among the highest in the OECD. In 1990, out of 813,000 tonnes of hazardous waste (excluding contaminated soil, dredging soil, shipping waste and screened sand), 36% was recycled, 28% incinerated and 33% sent to landfill (OECD, 1995: 84-87).

Disturbance. The disturbance policy is aimed primarily at the reduction and prevention of disturbance in people's immediate living environment as a result of e.g. noise, smells, local air pollution, vibration, and the risk of accidents due to the proximity of industry or the transportation of hazardous substances.

In the period 1980-1993, total nuisance levels rose by 17% (Ministerie van Volkshuisvesting, 1994). The number of people disturbed by unpleasant smells, for instance, increased between 1980 and 1989 from 18% to 22% of the Dutch population (RIVM, 1993: 120). Noise disturbance from road, rail and air traffic also increased slightly between 1985 and 1990 (RIVM, 1991: 406).

Desiccation. Desiccated natural land covers roughly 424,000 ha. Until recently the area of desiccation in the Netherlands had been estimated at only 207,000 ha (RIVM, 1993: 132). In many places the relatively highly lying sandy soil areas have become seriously dried out. Desiccation is a serious problem, particularly in the coastal dunes, where it is due mainly to the extraction of potable ground

water. The extraction of ground water for drinking and for industry doubled to roughly 1 billion m³ per year between 1950 and 1988. According to recent research (Beugelink et al., 1992), this has led to a reduction in humid and wet natural habitats of between 17% and 25% since 1950.

Dissipation. Here the focus is on, among other things, the management of the reserves of natural resources which are necessary for passing on a sustainable environment to future generations. Every year these reserves undergo further depletion. Concrete targets for dissipation are still being developed and a useful indicator is unlikely to be available before 1998.

Overall, both nationally and regionally, biodiversity of fauna and flora in the Netherlands is decreasing. There are no species where the situation is entirely satisfactory (OECD, 1995: 93-97).

Dramatic changes have also occurred in the size of natural areas and forests. Since the 1920s, the total area covered by natural areas and forests has declined dramatically, from 7,900 km² in 1920 to 4,500 km² in 1988. The vitality of forests has also been decreasing in recent years: in 1992, vitality in 29% was low (compared with 8% in 1984), and 6% showed none at all (against 2% in 1984).

While overall progress is being made in extension the legal protection of natural areas and species, and in the creation of management structures to implement nature conservation policy, these are not sufficient in themselves to safeguard the national resources involved (OECD, 1995: 107).

3 Environmental Policies

3.1 The Start of Institutionalisation

As early as 1810, when the Netherlands was under Napoleonic rule, a decree was issued, introducing a licensing system aimed at controlling the hazards, damage and nuisance caused by industry (De Koning, 1994: 13). In 1962 the term "environment" made its first official appearance in the Netherlands. In that year, the minister of Social Affairs and Public Health set up a Public Health Inspectorate which was responsible for environmental protection. However, it was only in 1971 that environmental protection became institutionalised as a task of national government, in the Directorate General for Environmental Protection (DGEP). This occurred during the term of office of the first Minister for Public Health and Environmental Protection. The DGEP was initially allocated very limited resources. As the workload increased and environmental problems gained in urgency, the political will - notably in the Lower House - to provide the DGEP with further resources and powers grew. The allocation of financial and human resources showed a marked increase in the period from 1972 to 1982. In 1982 the Ministry of Public Health and Environmental Protection was dismantled and its tasks were transferred to the new Ministry for Housing, Spatial Planning and the Environment (VROM).

3.2 Environmental Laws and Regulations

The Nuisance Act, which governed hazards, damage and nuisance caused by installations linked to a specific location, dated from 1896. Its predecessor, the Factory Act, had been in force since 1875.

As environmental awareness became far more widespread in the late 1960s and early 1970s, certain sections of the Nuisance Act were tightened up and incorporated into separate laws and regulations. Supplementing the provisions contained in the original Nuisance Act, these also imposed restrictions on particular products and behaviour. The sectoral laws introduced in the course of the 1970s include laws on surface water pollution (1970), air pollution (1971), chemical waste (1976), waste materials (1977) and noise nuisance (1979).

These laws attracted sharp criticism from various sections of society. Citizens alleged that the public participation and appeal procedures were biased against them. Industry, for its part, claimed that the licensing procedures were far too time-consuming. Furthermore, companies asserted that there was insufficient coordination between the various authorities involved in the license-issuing process (De Koning, 1994: 168-169).

To solve these problems, the Act on the General Provisions for Environmental Protection (Wabm) was introduced. This Act made the various sectoral laws subject to uniform rules for the application and granting of licenses while also providing for uniform participation and appeal procedures.

Nevertheless, it was still felt that environmental legislation lacked coherence, and pressure was exerted to further expand the scope of the new General Provisions Act at the expense of the sectoral laws. This culminated in the incorporation in 1993 of the General Provisions Act into a new Environmental Management Act. The name of the Act was changed deliberately, to indicate that the ambit of the Act had been extended to create an all-embracing general law. The Environmental Management Act also opened up the possibility of granting integral environment licences covering all environmental aspects. One consequence was that, effective from 1 March 1993, five licensing systems from five environmental acts - the Nuisance Act, the Air Pollution Act, the Noise Nuisance Act, the Waste Materials Act and the Chemical Waste Act - were subsumed under the Environmental Management Act. This has made environmental legislation far more transparent and easier to enforce. A separate licence is however still required under the terms of the Surface Water Pollution Act, which falls within the competence of another ministry that was unwilling to relinquish this responsibility.

3.3 Policy Instruments

The central instrument in Dutch environmental policy is a ban on performing any environmentally harmful activities without a licence. The various environmental laws put this ban forward as the foundation stone of environmental policy

instruments. For a long time, the licensing systems based on the ban were virtually the only instruments available for manipulating environmental behaviour. Recently, licensing has been replaced by general regulations for a number of sectors characterised by large numbers of small companies.

Financial instruments are less important, with the notable exceptions of water effluent charges and the tax differentiation that was used to stimulate the introduction of cleaner cars. Various subsidy schemes are used, but these have only limited influence (Bressers and Schuddeboom, 1994). Attempts to introduce an energy or carbon tax have failed several times, mostly owing to strong resistance from industry and its representatives in parliament and government, e.g. the Minister for Economic Affairs. An independent committee was set up to calculate economic side effects on the basis of hypothetical scenarios. Some possibilities that had emerged as positive were nevertheless swept under the carpet by the Minister for Economic Affairs (who is also responsible for energy-saving policies) even before the report was completed. When in 1994 the administration of Prime Minister Kok took over, a new opening was found. Plans were made for the introduction of a limited energy tax in 1996. This tax is regarded as a first step, to be followed by additional steps taken in the context of the European Union. In December 1995, however, the Dutch Senate was still discussing the new tax and its introduction was still uncertain. One of the counter-arguments was the fear of a loss of competitiveness in Dutch industries. This fear seems unjustified in the light of recent research, which has shown that the Dutch paper industry had, on balance, suffered no loss of competitiveness as a result of the very high water pollution charges, when compared with the Belgian paper industry in the 1970s and 1980s - a period during which such charges were not present in Belgium.

Since the reformulation of Dutch environmental policy in the first National Environmental Policy Plan, new instruments have appeared or gained dramatically in importance. These are aimed at stimulating society and non-environmental government bodies to assume some responsibility for sustainability and environmental quality. This is done through target-group consultation and covenants, company or personal liability, emissions trading, research and information obligations, regulations requiring companies to employ staff with adequate expertise, the creation of institutional facilities (environmental impact assessment, company environment departments and internal company environmental management systems), and so forth. Many of these instruments also operate indirectly through intermediary organisations, and sometimes even lead to the creation of such intermediary organisations. This approach is becoming far more widespread, not only in the Netherlands but - since the fifth Environment Action Programme of the European Union - also at European level.

3.4 Policy Style

Initially there was a wide discrepancy between the policy style of the policy-makers and that of the policy implementers. The policy-makers, civil servants and administrators of the new Department of the Environment adopted a distant and often rather negative attitude towards the policy target groups, such as the industrial sector. The target groups generally had little influence over environmental policy which, consequently, showed a preference for direct regulation. The enforcement of these regulations, however, was left to other agencies (Bressers, 1993; Bressers, Huitema and Kuks, 1994). The policy implementers, such as the license issuers, were understaffed. In addition, they often lacked motivation and received too little support from the responsible administrators. As a result, they tended to concentrate on responding to complaints rather than pursuing an active and systematic licence-issuing policy. Systematic control was virtually non-existent.

The difficulties in providing concrete evidence of environmental infringements were a further reason for refraining from legal action and, instead, for a policy of "talk, talk and talk again". In other words: although the legislation was strict in theory, in practice it was used at best as an informal bargaining counter in negotiations.

In the first half of the 1980s, the then environment minister Winsemius (see Winsemius, 1986: 61-67) initiated vigorous efforts to persuade the environment policy-makers and target groups to abandon their entrenched positions. As this process gained momentum, special "target group managers" were appointed at the ministry. Their task was not only to act as ambassadors of the environmental policy vis-à-vis the target groups, but also to "educate" their own organisation to have more understanding for the target group's position. Contacts between environmental policy-makers and representatives of the target groups became far more regular. It was only thanks to these initiatives that at the end of the 1980s the authoritarian style of Dutch environmental policy-makers was supplemented with a new approach designed to encourage self-regulation. At the same time, the allocation of additional funds had reinforced the policy implementation powers of environmental authorities at provincial and municipal level, while growing public interest in environmental problems had also resulted in stronger administrative support for implementing the environmental laws. At the present time, a confrontation is looming between the implementers' regulation-oriented policy style and the policy-makers' emphasis on the goodwill of companies.

This problem has been recognised in the past few years, and scope has been created within the law to attach more weight in the licence-issuing process to companies' own environmental plans. On the other hand, frameworks have been created to ensure that temporary "toleration" of infringements is now subject to clearer rules. However, there is still a long way to go before the problem of opposing policy styles can be definitively solved.

4 Capacity-Building

4.1 The Main Actors and their Strength

Policy institutions. To obtain a clear understanding of the policy institutions in the Netherlands, a subdivision must be made between the vertical and horizontal distribution of powers among them. Horizontal distribution entails powers being divided between the different departments of higher or lower level authorities. This is discussed at length in section 5 (integrative solutions). Vertical distribution refers to the division of powers between authorities at various government levels.

In the Netherlands, the administrative structure comprises three layers of government, namely (1) municipalities and water boards, (2) provinces and (3) national government. These do not operate in isolation, but complement each other (Nelissen et al., 1987: 241). Initially, environmental regulations were made exclusively at local level. The municipality long remained the only government body involved in the issuing and monitoring of licences (Boersema et al., 1991: 65-66). As a result of the environmental laws introduced in the 1970s, the provinces were also entrusted with responsibility for implementing these laws. For this reason, provinces now also have license-issuing powers, namely in cases involving complex and technically detailed issues and potentially highly-polluting companies. National government concentrates primarily on national legislation and regulations, as well as on national environmental policy planning, including setting targets and norms.

Nonetheless, this by no means implies that national government carries sole responsibility for determining the environmental policy which municipalities and provinces are subsequently obliged to implement. The provinces and most municipalities conduct their own environmental policy planning. In addition, the municipalities and provinces enjoy autonomous status when it comes to environmental policy. The law, for instance, lays down that plans made at the various levels of government are not governed by any hierarchical order. Vertical fine-tuning must take place, principally by means of consultation, agreements and the exchange of information. Where this fails, both national government and the provinces have instruments at their disposal to insist on vertical fine-tuning.

Environmental policy planning has become an interesting Dutch policy institution in itself. The planning system distinguishes itself from similar systems in other countries, which were often introduced after observing the Dutch example, in two characteristics. First of all, it is an attempt to operationalise ideas from the "strategic choice approach" in the academic literature on planning. This means that its main goal is not to stipulate future action, but to improve coherence and to focus on the future quality of motivation and openness in external participation in subsequent decision-making (Coenen, 1992). As a second characteristic, more or less in spite of this general orientation, the national and also many of the provincial and local plans contain precise and quantitative goals, for instance on emissions reduction.

The attention devoted to the environment in the political institutions varies over time. Like the general public, political institutions are inclined to show greater interest in the environment at times of economic prosperity. But once awareness has reached a certain level, it tends to be sustained for a while, even after the economy starts to slow down again (Gijswijt and Van der Vliet, 1993).

Green organisations. The nature conservation movement in the Netherlands dates back to the turn of the century. These pioneers of nature conservation initially focused exclusively on the protection of nature as a recreational resource. Nature conservation organisations are generally stable, have a formalised internal structure and are directed by people with a lot of expertise. Negotiations and consultation based on expertise, formal pressure and lobbying are currently the main elements in the strategy of the conservation movements. Until a few years ago, they did not concern themselves with general political objectives (Leroy and De Geest, 1985: 94-97).

In the period around 1968-1972, a series of environmental incidents prompted growing worries over the environment in the Netherlands. A new environmentalist movement sprang up, rooted partly in the traditional nature conservation organisations. This new movement comprised a conglomerate of roughly 700 to 800 associations, organisations and action groups. It differed from the original nature conservation movement in two respects (Leroy and De Geest, 1985: 41-42). First of all, its interest is in a more general combating of pollution and of the relentless depletion of natural resources. Secondly, it has showed a clear preference for expressive and symbolic actions which were used to mobilise the public against the government's environmental policy. The environmental activists came into far more regular and violent conflict with certain prevailing values and norms. Initially, many environmental groups lacked a formal internal structure. This meant that support had to be drummed up specially for each new action. The resulting expertise and skills in mobilisation and organisation of social protest actions have become important strategic weapons in their hands.

Towards the end of the 1970s, as the popularity of "extra-parliamentary" action was beginning to wane (Nelissen et al., 1987: 231), many environmentalist organisations and action groups changed their strategy, and were now prepared to meet the government around the negotiating table. Their timing could not have been better. For the new environment departments at national, provincial and local levels saw the environmental movement as a potential ally, and were therefore eager to accept it as a negotiating partner. In many cases, in fact, their status was even laid down in law. To perform this role, new skills had to be acquired in the fields of policy processes and environmental policy. As a consequence, the environmental movement, currently comprising about 12 organisations, has developed very much into an institutional and professional actor in the field of environmental policy.

A pivotal role in this respect is played by the Stichting Natuur en Milieu (Foundation for Nature and the Environment). This foundation acts as the think-tank of the Dutch environmental movement and supplies many of its representatives on committees and other consultative structures within and outside govern-

ment. As noted above, the environment department sees the foundation as an important ally, and has therefore always provided the organisation with generous subsidies to guarantee the quality and strength of its arguments.

All nature conservation and environmental movements are united under the national and regional environmental federations in the LMO (National Environmental Consultation). The secretariat of the LMO, incidentally, is based in the building of Stichting Natuur en Milieu. According to the LMO, the environmental and nature conservation organisations in the Netherlands have jointly roughly 50,000 active members. The number of non-active members is far greater. The Vereniging Milieudefensie (Dutch Friends of the Earth) has a relatively high number of active members. The two nature conservation organisations, in particular, have achieved explosive growth rates in membership over the past years, thanks to large-scale recruitment campaigns. It is perhaps worth noting that both are managed by former environment ministers who were immensely popular in the 1980s.

The table below shows the development of the membership of several large and influential nature conservation and environmental organisations:

Table 1. Membership of Environmental Organisations in the Netherlands.

<i>Nature/Environmental Organisation</i>	<i>Membership around 1975</i>	<i>Membership around 1985</i>	<i>Membership in 1995</i>
Greenpeace	90,000	300,000	600,000
World Nature Fund	45,000	115,000	690,000
Dutch Friends of the Earth	8,000	14,500	35,000
Vereniging Natuurmonumenten (Nature Association)	200,000	235,000	722,000

Target groups. One of the Dutch government's strategies for achieving a more integrated environmental policy is the target group policy (see also the section on policy style). This new policy focus means that, after the national environmental objectives have been formulated, target groups and their representatives now have much greater say in all further stages of the political process. The cooperative - and at times even extremely positive - attitude of many industrial organisations has been a great help in this connection.

In creating a consultative structure between government and industrial organisations acting on behalf of the polluters (i.e. the target groups) an attempt is being made to internalise environmental responsibility in individual companies. One of the main aims of this consultation is to define the tasks for a specific sector of industry within the framework of the overall national environmental objectives. These arrangements are usually laid out in covenants and other forms of guidelines, incorporating targets to be realised by the various sectors of industry within a certain time limit. This approach is not only aimed at achieving more

broadly-based support for government policy, but also recognises that the expertise necessary to reduce environmental pollution can be gained in large part from the polluters themselves.

One consequence of target group consultation, therefore, is that an increasing number of companies are setting up their own internal systems to make care for the environment an integral part of their business procedures. The industrial organisations can promote this process by developing model environmental management systems, which companies can use to create their own internal systems and procedures.

Although the industrial organisations are generally playing a positive role, this does not mean that all sectors of Dutch industry are interested in reducing the pollution they cause. Far from it: many individual companies are still stand-offish, even obstructive, while employers' and employees' organisations also tend to keep their distance. In 1994, however, the latter surprisingly issued a joint declaration affirming their commitment to a sustainable society and calling upon government to pursue a more vigorous policy. However, as soon as concrete measures are proposed, the employers' organisations are generally the first to raise objections.

Experience over the past few years has shown that target groups consisting of large numbers of small units (such as households, farmers, car drivers, retailers and other small firms) are far more difficult to reach by means of a target group policy (Staten Generaal, 1993).

The media and others. In the late 1960s and early 1970s, alarming scientific and more populist publications dramatically highlighted environmental problems, thus vastly increasing environmental awareness among the Dutch public and making the environment an acute political issue. The mass media were also instrumental in mobilising popular support for the up-and-coming environmental movement.

As in the early 1970s, the media still have the power to influence public opinion by devoting more or less of their time to environmental issues. Research by Gutteling and Caljé (1993) confirms that strong media attention to the environment results in greater concern among the population. Ester (1979: 141) asserts that the more threatening the information is, the more likely the (negative) message is to stick in people's minds.

Gutteling and Caljé showed in the same study (1993: 14-19) that reports on the environment in Dutch newspapers differ widely in terms of the quantity and type of information (pollution, risks, incidents, miscellaneous) published. This results in people's views on the environment being largely determined by the paper they read (Wiegman et al., 1989: 846-852). The reason for focusing on newspapers is that these are still an important source of information in the Netherlands, despite the rise of other important media like TV (Galetzka et al., 1994: 7; Gutteling et al., 1991)

4.2 Resources For Environmental Protection

Institutional and legal. In section 3.3 we discussed the government's most important instruments for pursuing environmental policy. This section looks at the means available to other relevant actors for influencing environmental policy.

One such instrument is the EIS (environment impact statement), which came into force in the Netherlands in 1987. The EIS must describe the relevant activity, alternatives for that activity and the possible environmental consequences of these alternatives, while also giving a comparative analysis (Barendse and Udo de Haes, 1989: 127). The inclusion of the most environmentally friendly alternative is required by law. The other alternatives that may be incorporated depend on the outcome of the negotiations between the initiator of the EIS (the private entrepreneur or government body seeking to undertake the activity) and the authority empowered to take a decision on the proposed activity. One noteworthy aspect of the Dutch EIS procedure is the existence of an independent committee of experts which advises the competent authorities on the guidelines that the report must satisfy. This committee also subsequently evaluates the quality of the report in the light of these guidelines (Evaluation Committee, 1990). Moreover, the EIS procedure also provides for extensive participation opportunities for all interested parties.

The Environmental Management Act, which came into effect in March 1993, has widened the opportunities for participation as well as for lodging objections and appeals. First of all, it requires the authorities to draw up a draft decision (concerning e.g. a licence) before the actual decision can become law, thus permitting private individuals and organisations to lodge an objection to the proposed decision at an early stage. If need be, the authorities can also be required to organise a public hearing. Secondly, parties need not be directly involved to be admitted to the participation, objection and appeal procedures. The reasoning here is that the environment is perceived to be an issue of general public concern.

Nevertheless, these extensive procedures have become a bone of contention in the Netherlands.

Information. The National Institute of Public Health and Environmental Protection (RIVM) is a scientific institute belonging to the national government. Its task is to provide government with the information required for its health and environmental policies, in order to promote public health. In this connection, the RIVM keeps records and makes predictions of the current and future quality of the environment on the basis of models. So far the RIVM, working in cooperation with other institutes like the CPB (Central Planning Bureau), has published three national environment surveys, in 1988, 1991 and 1993. These surveys support national environmental policy planning. With the aid of the surveys, forecasts can be made of the environmental quality that can be expected in the future if the existing policy is carried out. Furthermore, additional policy alternatives are presented in the light of the expected effectiveness of the proposed government policy.

Twenty per cent of the research carried out by the RIVM within its wide-ranging terms of reference is undertaken on its own initiative. The remaining 80% consists of commissions from the government (RIVM, 1994: 4).

From 1995 onwards, the RIVM will bring out an annual Environment Report, containing the latest environmental data as well as indications of the expected effects of policy measures in the medium term (several years). An Environment Survey covering a period of at least 10 years is to be published every four years. In this way, the RIVM proposes to give concrete shape to its role as an environmental planning agency. Apart from the important part played by the RIVM, a great deal of policy-supporting research is performed at the universities. A special role is played by the extensive policy research that is conducted here (see section 5).

Money. Initially there were serious problems keeping the expenditure of the Environmental Management Directorate General in check, partly because the organisation did not have its own financial department - this was only set up in 1985. A further problem was that a lot of money was spent on research that was difficult to monitor and control. Finally, many of the employees were young and unaccustomed to working within a tight financial regime. It was only in the course of the 1980s, with the institutionalisation of a financial department, that the accountants started to play an important role (De Koning, 1994: 203).

The expenditure of the Directorate General increased from 289 million guilders in 1976, to 608 million in 1980, 998 million in 1985, 1,269 million in 1990, and totalled 1,583 million in 1993. Even after adjusting the figures to take account of inflation, the increase since 1977 remains substantial. Environmental expenditure is predominantly aimed at water pollution (37%), waste management (23%) and air pollution (17%). The total environmental expenditure of all sectors in the Netherlands amounted to 1.1% of GDP in 1980, 1.3% in 1985, 1.9% in 1990 and 2.7% in 1995 (OECD, 1995: 114-116). The total environmental costs for 1991 are estimated at almost 10 billion guilders. The largest part of the government's environmental expenditure is paid for out of specific duties and charges. Some of these duties have an additional regulatory effect. The water pollution duty is a good example of this.

Municipal and provincial environmental policy used to be financed without any contributions from national government. When the environment started to make increasing demands on the lower-level authorities, national government provided substantial special grants on a temporary basis. These individual transfer payments are to be phased out eventually (Brussaard et al., 1993: 47-48).

Public attitude, trust and prestige. Between 1967 and 1994 public opinion concerning important national problems has fluctuated considerably and the importance attached to environmental issues has not been stable over the years. During most of this period only a small percentage (1-5%) of the electorate has seen the environment as the most important national problem. But this proportion peaked in the early seventies (about 20%) and around 1990 (45%). This instability stands in stark contrast to the problem of unemployment which, except for a time in the early 1970s, has been regarded by the electorate as one of the

most important national problems throughout the period 1967-1994, although its "support" has alternated to some extent with that of the environment (c.f. Aarts, 1995: 4).

Over the past decades, interest in environmental problems has risen and fallen in a wave-like pattern. What this seems to suggest is that public interest in environmental problems in the Netherlands is subject to a cyclical change which is relatively unaffected by the gravity of the actual problems. One possible explanation could be the varying intensity in media coverage of environmental problems (see media). Another explanation for the cycle is that the main national problems "the environment" and "unemployment" take turns in commanding the public's attention. It would seem that many people still see the environment as a luxury problem. The fickleness of public attention to the environment, incidentally, discourages politicians from taking up strong standpoints and seeking public support for radical policy measures.

International context. In the Netherlands the international context is generally, and perhaps wrongly, regarded as a poor source of political power. The chapter on international environmental policy in the Dutch environmental programme 1995-1998 (Staten Generaal, 1994) tends to focus on what the Netherlands could do to promote environmental policy in the rest of the world, rather than on how international agreements could be translated into national policy. It is characterised by "a mixture of self-interest and a sense of being corresponsable" (see Kaakebeeke, 1994: 341). One clear instance of this was the Netherlands' active stance at the Rio conference.

Nevertheless, in certain cases the international context of environmental policy can most certainly be seen as a potential source of political power for parties seeking to further the environmental cause. The best example of this is still possibly the way in which the former environment minister cleverly used the report "Our Common Future" to lure the other ministers into accepting certain basic principles which eventually and inevitably resulted in the National Environmental Policy Plan. The likelihood is that the current content of the policy plan would never have been achieved in direct negotiations between the environment minister and the other ministers.

4.3 Policy Integration: Inter-Policy Cooperation as an Objective

It has been argued in the Netherlands that the best environmental policy would be to put an end to all environmentally-unfriendly policies (Drees, 1992). This is a pointed reference to, among other things, the policy aimed at stimulating intensive agriculture and livestock farming, which involves the construction of large infrastructural works to increase the mobility of people and goods, land reorganisation and a lowering of the ground water level to facilitate agricultural mechanisation at the expense of the natural environment.

A further factor is that many environment-related tasks have been entrusted to other ministries. The Ministry of Economic Affairs, for instance, is responsible

for energy-saving. The tasks of the Ministry of Agriculture include nature management, prevention of overfishing and - together with the environment department - the elimination of excessive use of manure and pesticides. The Ministry of Transport and Public Works is responsible for water quality management and also for limiting the growth in (car) mobility. The National Environmental Policy Plan (1989) and its successors were therefore signed by all four ministers involved. The realisation of the National Environmental Policy Plan, incidentally, can be seen as a successful attempt by the Ministry of the Environment to take advantage of the wave of sympathy for and attention to environmental issues in the late 1980s, in order to secure the commitment of the other relevant ministries to environmental objectives. This process was certainly not free of tension. Shortly after the publication of the first National Environmental Policy Plan, the government fell, because the Minister of Transport and Public Works and the Environment Minister lost the backing of their Conservative Liberal Party after seeking to abolish tax relief for commuting in an effort to slow down the growth in mobility. Within the framework of the National Environmental Policy Plan, municipalities and provinces have been entrusted with all sorts of tasks designed to make the environment an integral concern in other policy fields. Their environmental policy plans have still to reveal how this aim is to be given concrete form. In the meantime, this approach has resulted in the creation of "bridgeheads" at other ministries or departments, in the form of individual officials or entire departments which put the environmental point of view within their own organisations.

One particular way of achieving policy integration is the so-called "field-oriented policy". In this connection, government and non-government organisations with importance for the quality of the environment are brought together as far as is possible. The idea is that these groups work together, while retaining their individual powers, to define the problems for the entire field and formulate a joint approach for tackling the problem. It is hoped that this approach will facilitate the recognition of "win-win" situations and prevent conflicting interests from leading the various parties to become entrenched in their respective positions. Experience with this form of network management has so far been mixed.

The environment issue has also had far-reaching consequences for the nature of some policy networks. The agricultural world was traditionally seen as "the green front" in the Netherlands, a close-knit and closed network which not only consisted of ties between farmers, their organisations and the Ministry, but even had its own university and bank. The excessive use of manure and pesticides, in addition to overproduction, has seriously tainted the image of the agricultural sector and impaired the strength of the policy network. As a consequence, the sector is gradually opening up to the outside world. Similarly, in the fields of drinking-water production and water management in general, the era of "pumping and billing" has come to an end. The new (environmental) challenges mean that all organisations, both government and non-governmental, must abandon their strictly technocratic orientation and become more focused on consulting with other relevant parties (Bressers and O'Toole, 1994).

4.4 The Policy Paradigm

The objectives of a policy are linked to a wider pattern of values surrounding the policy field (Fischer, 1985; Hoogerwerf, 1990). The value patterns in respect of the environment which helped to determine the policy objectives can be subdivided into the following "policy paradigms": "human health", "nature" and "sustainability". In addition, "ecological modernisation" can also be regarded as an emerging paradigm.

Human health. The earliest general government memorandum on environmental policy (Staten Generaal, 1972) centred on public health, which was defined as physical, mental and social well-being. It did not go so far as to assign intrinsic value to the well-being of non-human organisms (Bressers, 1979: 80). This limitation was debated in Parliament.

Nature. The debate marked the start of a period in which, at least in official policy documents, the demands made on the quality of the various environmental sectors were based on the "general ecological function". It was added that "additional demands with a view to human uses" will be made wherever necessary (e.g. Ministerie van Verkeer en Waterstaat, 1975). Naturally it is questionable to what extent this far-seeing standpoint, where ecological considerations prevail over anthropocentric concerns, ever had a sufficiently broad base of support. In all likelihood, it is at least partly the expression of a naïve optimism regarding the manageability of environmental problems and the "malleability of society" in general. In the second half of the 1980s, however, it became clear that policy effects were repeatedly falling short of expectations. At the same time, recognised environmental problems turned out to be more serious than initially assumed, and the general public became aware of a growing number of environmental problems. As a result of these developments, the environmental focus shifted away from "the intrinsic value of nature" towards "care for tomorrow".

Sustainability. "Care for Tomorrow", which in Dutch also means "worries about tomorrow", was the title of a ground-breaking collection of studies published by the RIVM (State Institute for Public Health and Environmental Protection) in 1988. In these studies, the gravity of all environmental problems in the Netherlands and the outlook for the future if policy remained unchanged were presented for the first time as an interrelated whole. Almost immediately after the publication of "Our common future", the Dutch government designated "sustainable development" as the general guideline for overall Dutch government policy. It was evident from the RIVM report that this would have to have far-reaching consequences. These were translated into the first National Environmental Policy Plan (NMP), entitled "To Choose or to Lose" (Staten Generaal, 1989).

Subsequently, the concept of sustainability was developed further in the term "ecological user space", which sought to define permissible environmental impact and permissible use of raw materials given the capacity of the global environment and the needs of future generations and other countries. Please note, incidentally, that this still concerns exclusively the needs of human beings.

Ecological modernisation: The definition of sustainability in terms of "ecological user space" was criticised by the Nederlandse Wetenschappelijke Raad voor het Regeringsbeleid (a scientific advisory council for government policy) in 1994. It was pointed out that the interpretation of sustainability involves, implicitly or explicitly, political choices in which different interests have to be weighed against one another. Consequently, various lines of action could be defended from different perspectives. The people who had conceived the NMP were accused of having opted too glibly for a particular far-reaching interpretation, without addressing the economic consequences of the policy until the actual implementation took place. The Ministry of the Environment, incidentally, denies that the economic consequences were ignored when the NMP was drawn up. It is also curious that, according to the analysis in their own report, the objectives of the NMP would eventually have to be tightened up even if the least far-reaching line of action recommended by the scientific council was followed.

This debate does show how, now that the renewed environmental policy has reached the implementation phase, the opponents within society are beginning to stir themselves. The achievement of a synthesis and reconciliation of ecological and economic interests, both at micro-level ("pollution prevention pays") and at macro-level ("ecological modernisation"), is becoming increasingly indispensable in order to arrive at a strong environmental policy.

5 Evaluation

The previous sections illustrated the development of Dutch environmental policy. In this closing section, an attempt is made to assess this policy and its development.

Effectiveness. The Dutch situation regarding environmental policy is exceptional, not so much for the environmental policy itself, but because of the enormous number of studies devoted to its implementation and effects in all its different aspects.

More than one hundred policy evaluation studies have taught us a lot about the actual effects of permits and other policy instruments (cf. Schuddeboom, 1994). Until recently many firms operated without a licence and control visits were often rare.

From 1970 to 1980 organic pollution from industrial effluents nevertheless fell by two-thirds. But research (Bressers, 1983a, 1983b, 1988; Schuurman, 1988) has showed that almost all the credit for this reduction goes to the introduction of charges. The licences introduced at the same time had had little effect.

The results of Dutch environmental policy during the 1970s and 1980s, the period before the reformulation of Dutch policy in the first National Environment Plan 1990-1994, were, all in all, not particularly impressive. The dominant policy instrument - i.e. licensing - was bedevilled by implementation problems in practice, and as a result, largely ineffective. One might sum up the results of Dutch environmental policy in the 1970s and the 1980s in the following

sentence: About half of the policy objectives formulated in, and with the available knowledge of the 1970s have been achieved, but the information we have now tells us that we need to achieve objectives that are at least twice as far-reaching.

So it was inevitable that a complete rethink of environmental policy strategy took place. Although it is rather early to assess the results of the new policies, recent goal-attainment in various - though not all - aspects of the environment appears as a fairly positive sign (see section 2).

Efficiency. In the 1980s (1980-1989) total environmental costs rose from less than four billion guilders to 7.3 billion guilders. The direct environmental expenditure of companies ran to 1,757 million guilders in 1989. 800 Million guilders were spent in 1989 on "executive tasks": i.e. drafting laws, norms and regulations and the licence-issuing system. Arentsen, Klok and Maarse (1993: 224) conclude that in the 1980s a significant proportion of the government's environmental expenditure was spent on policy development. They also note a tendency to pass responsibility for part of these "executive tasks" on to companies. In practice this often involves the services of consultants, who help with the preparation of license applications and negotiations with government. To make the system more efficient, general rules have been drawn up for specific sectors so that large numbers of companies no longer need to apply for individual licences.

After the 1980s, there was substantial additional expenditure on the environment. In the second National Environmental Policy Plan (Staten Generaal, 1993), the growth in total environmental costs was estimated (in 1994 prices) at 17.5 billion for 1995 (almost 2.5 times 1989 levels), 22.8 billion in 2000 and 26.5 billion guilders in 2010. For the year 2000 the government expects that 3.25% to 3.5% of GDP will be spent annually on environmental measures.

To evaluate the efficiency of a policy, it is necessary to know its effects. Unfortunately, this knowledge is not always available. In broad terms, it can be said that soon after the National Environmental Policy Plan had resulted in an intensification of policy efforts, attention was devoted to safeguarding efficiency and preventing dissipation of resources in this "booming sector".

On the other hand, it would have been a virtual miracle if such rapid growth had resulted exclusively in efficient measures. While overall support for environmental policy remains as strong as ever, there are also complaints about overly stringent norms (incineration installations, soil clean-ups), lack of flexibility (noise nuisance) and inconsistencies between the target group policy and the issuing of licences.

Integrative solutions. From the late 1970s and early 1980s onwards, people became increasingly aware of the disadvantages and limitations of the sectoral environmental policy pursued up to then (Leroy, 1994: 42). As a consequence, efforts were made in various ways to integrate the policy. Environmental policy was no longer reviewed according to environmental compartments - such as air, water and soil - but according to themes (e.g. acidification, the manure problem and desiccation), geographical areas (e.g. vulnerable sandy areas), material flows (e.g. cadmium) and target groups (e.g. traffic, industrial sectors and agriculture). The new approach was later called the "internal" integration of environmental

policy. This internal integration has taken on concrete form in plans, laws and institutions so that, thanks to these efforts, major progress has been achieved.

Since the National Environmental Policy Plan was published, far more attention has been devoted to the "external integration of environmental policy" (interpolicy cooperation - see section 4.3). What this entails is that such matters as transport policy, physical planning, agricultural policy, economic structure policy, water management, building regulations, energy policy and educational policy are fine-tuned with an eye to the national environmental policy (Staten Generaal, 1990). This fine-tuning should take place not only at national level, but also at provincial and local level. Despite excellent initiatives in this respect, this form of integration is still making slow progress, because traditional policy objectives remain an overriding concern. Over the past few years this has become abundantly clear in important government decisions on infrastructure. In these cases economic interests have always, either implicitly or explicitly, taken precedence over environmental considerations.

Redefining the policy mix. The challenge of environmental policy has shifted from winning corporate cooperation to harnessing corporate creativity. Creativity cannot be squeezed out of companies by a regulatory stranglehold, at least not now that so many competing aspects are involved. For this reason the Netherlands is now emphasising consultation between government and target groups while encouraging self-regulation among businesses. Such a policy calls for delicate handling, because consultation can only succeed if realisation of the environmental objectives is ultimately perceived by all participants to be "inevitable", and this perception can only be achieved by means of sufficient social and political pressure. In such a twin-track policy, therefore, it is vital to achieve an optimal fine-tuning of, on the one hand, legislation and enforcement and, on the other, consultation and self-regulation.

Clearly, we believe that consultation and self-regulation form an indispensable track of environmental policy. However, this track soon comes into collision with direct regulations which stipulate requirements concerning e.g. equipment or technology, and even with those that set specific targets. Irritation among the business community provoked by such "twin-track control" can easily undermine precisely the goodwill and commitment which are the key benefits of target-group consultation.

The only way out of this dilemma is to make a distinction, in terms of both the application and the nature of the legal instruments, between positive and active companies, law-abiding but passive companies, and non-cooperative companies. In other words, legal instruments, which will certainly continue to be based on licensing requirements for some time, must be applied more flexibly. Companies with an environmental management system - one which is recognised by the authorities and preferably also certified by an external body - can qualify for an integral licence on the basis of that system and an approved environmental business plan. In such cases, policy enforcement can take place partly through audited progress reports. With other companies, however, government must

retain the option of issuing instructions, and even, where necessary, of demanding the use of certain clean-up technologies.

Target-group consultation is playing an increasingly central role in the Netherlands and various other European countries. In this light, it is time to look for ways to institutionalise the consultative process in order to protect the legal and democratic integrity of government.

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