

Environmental Policy Capacity Building in 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. The international fame of Dutch environmental policy rests partly on moralistic finger-wagging at international forums. Back home, however, this high moral stance is taken with a large pinch of salt. But recent signs suggest 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 covenants and other voluntary agreements. This renewal has also been a source of inspiration for the fifth environmental action programme of the EU.

At international forums the Netherlands frequently advocates stringent standards. This is the natural consequence of the country's population density and intense economic activity per square kilometre, which explain why the objectives of Dutch environmental policy have always been fairly ambitious ever since the publication of the first environmental policy memorandum (States General, 1972). This is not to imply that these policy objectives have remained more or less unchanged in this period. Over the past twenty years Dutch environmental policy has undergone a radical reassessment: the original and, with hindsight, rather naive belief that the pollution problem could be resolved within a single decade 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 surpassed the government's resources to realise it. The difference, however, is that we are now far more aware of this.

In the highly developed western world, government and society are more closely intertwined than ever. Their diverse strands have become inextricably interwoven. It is no longer possible to make a distinction between what society would do of its own accord, i.e. without government intervention, and what is contributed by government. Government too has become extremely

fragmented. There is a wide array of government bodies which each in turn break down into diverse organisational parts. In addition, the multitude of different interests experienced within society are virtually all represented in one or more of these organisations.

Therefore, the 'battle' to accelerate the pace of change in the direction of a sustainable society must also be fought out within the government's own ranks and within other organisations in society, such as companies.

It is from this perspective that the present article deals with the Dutch environmental policy capacity. The next section describes the development and perception of the environmental problems. Section 3 looks at various aspects of Dutch environmental policies, while section 4 discusses the 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 first deals with the most important environmental problems occurring in the Netherlands, and then moves on to discuss the various 'themes' surrounding Dutch environmental policy. For Dutch environmental policy is not compartmentalised into sectors (water, soil or air) but is formulated and implemented according to an integral thematic approach. The use of environmental themes provides clearer insight into the causes and effects of complex, interrelated environmental problems. The development of environmental quality over the past 10 years and the accompanying objectives for the year 2000 are represented per theme in graphs. For each individual theme, the indicators applied bring the environmental impact of emissions of different substances under a single denominator. These figures all come from the National Environment Programme 1995-1998 (Ministry for Housing, Regional Development and the Environment, 1994).

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 use of manure and, since this is becoming progressively forbidden, a 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. Already

more than 100,000 sites have been found to be so severely polluted that soil clean-up operations are necessary. In a densely populated country like the Netherlands, noise is inevitably a serious nuisance factor while the processing of large quantities of solid substances also constitutes a major problem. The national production of household refuse incidentally is clearly higher than in the rest of Europe, not only per square kilometre but also per inhabitant. Though the water quality of the large rivers has clearly improved, the many years of poor quality has caused severe pollution in 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 nature 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*

Change in climate

The theme "change in climate" has two indicators, namely one for the subtheme "change in climate due to greenhouse gas emissions" and one for the subtheme "depletion of the ozone layer".

INDICATOR CHANGE IN CLIMATE)

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, p. 22), only to fall back again in 1993 to the 1990 level of 182 billion kg (OECD, 1995, 72).

DEPLETION OF THE OZONE LAYER

CFCs and halons are seen as the most important contributors to ozone depletion. The environmental impact of the Dutch use of ozone-depleting substances decreased between 1980 and 1993 by 68% (Ministry for Housing, Regional Development and the Environment), 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, p. 187).

Acidification

ACIDIFICATION

The decrease in the average deposit of acidifying substances on the Netherlands in the period 1980-1990 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 in 1970, via 372 in 1980, to 135 million kilogrammes in 1991. The reduction in the 70s was primarily caused by the increased use of natural gas, while the decrease in the 80s was mainly due to the use of low-sulphur coal and flue gas desulphurisation in the power generation sector. Shifts from oil to natural gas in the industrial sector and from high-sulphur crude oil to residual chemical gas in refineries also contributed (OECD, 1995, p. 57). In 1990 65% of SO₂ emissions were caused by incineration processes (CBS, 1992, p. 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 road traffic NO_x emissions jumped from 147 to 269 million kilogrammes.

The discharge of NH₃ fell by 32% between 1980 and 1993, thanks to the increasing use of low-emission manure and the covered storage of manure from 1992 (Ministry of Housing, Regional Development and the Environment, 1994, p. 73).

The manure problem

Between 1985 and 1990 the infiltration of nitrogen into surface water fell from 266 million kg in 1985 to 258 million kg in 1990 (RIVM, 1993, pp. 88-95). Industrial discharges into surface water were reduced by 25% in this period. This improvement was partly cancelled out by increased pollution from agriculture.

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

Since 1980 the annual accumulation of phosphor in Dutch soil (and ground water) has gradually fallen from 166 million kg to 88 million kg in 1990. The annual accumulation in agricultural land (including ground water) was reduced in that period from over 88 million kg to over 67 million kg of phosphate per year. This decrease was brought about by the declining use of manure, a reduction in phosphor levels in concentrates and the declining use of concentrates. However, the total phosphor stocks in the soil are continuing to grow.

DISPERSION

The dispersion indicator is made up of four groups of substances weighted by toxicity and length of time in the environment. The groups are: agricultural pesticides, non-agricultural pesticides, priority substances (e.g. lead, cadmium, mercury, copper, zinc) and radioactive substances (Ministry for Housing, Regional Development and the Environment 1994, p. 79). In view of the dissimilarity of these substances, the graph is not presented here.

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 spread of other pesticides between 1984 and 1992 is estimated at 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 80s, the level had fallen to about 0.39 million kg (Adriaanse, 1990, p. 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 exceed water quality objectives, to a greater or lesser extent, at most sampling sites: in 1992, at 45 per cent of sites for cadmium, 86 per cent for mercury, 93 per cent for copper, 30 per cent for nickel, 12 per cent for lead, 64 per cent for zinc and 5 per cent for chromium (OECD, 1995, pp. 39-40).

The risks arising out of the dispersion of radioactive substances increased by an estimated 12% between 1980 and 1993. This was the result of the growing housing stock (emission of radon) and the use of coal by electricity power stations (Ministry for Housing, Regional Development and the Environment,

1994, p. 79).

Removal

REMOVAL

The objective of the Dutch government in this connection is to minimise the quantity of waste that needs to be incinerated or dumped and to stimulate prevention and the re-use of waste materials.

A total of 52 million tonnes of waste was generated in the Netherlands in 1990, consisting of household, commercial, agricultural, power plant, manufacturing, construction/demolition waste and contaminated soil. The amount of household refuse increased during the 1970s and 1980s. In the early 70s about 3 million tonnes of household refuse was produced. By the early 90s the figure had risen to 4.5 million tonnes. Hazardous waste increased from 287,000 tonnes in 1986 to 1,193,000 tonnes in 1992. This is partly due to improved waste separation practices and changes in hazardous waste definition, and partly due to economic growth (OECD, 1995, p. 77).

Compared with 1980 the amount of dumped solid waste had fallen by 19% in 1993, while the level of dumped household refuse also decreased in the same period. This can be explained by the increase in the separate collection of Vegetable, Fruit and Garden waste. The separate collection of biowaste for composting started in the late 1980s, became obligatory for municipalities in 1994 and now covers 61 per cent of households. The amount of biowaste 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 per cent of glass and more than 65 per cent 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 per cent was recycled, 28 per cent incinerated and 33 per cent landfilled (OECD, 1995, pp. 84-87).

Disturbance

Disturbance

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

In the period 1980-1993 total nuisance levels rose by 17% (Ministry for Housing, Regional Development and the Environment, 1994/95). The number of people suffering from smells, for instance, increased between 1980 and 1989 from 18 to 22% of the Dutch population (RIVM, 1993, p. 120). Noise nuisance from road, rail and air traffic also increased slightly between 1985 and 1990 (RIVM, 1991, p. 406).

Desiccation

The area of desiccated nature covers roughly 424,000 ha. Until recently the desiccated area in the Netherlands had been estimated at only 207,000 ha (RIVM, 1993, p. 132). In many places the relatively high-lying sandy soil areas have become seriously dried out. Particularly in the coastal dunes, desiccation is a serious problem, mainly due to the extraction of ground water for drinking purposes. The extraction of ground water for drinking and industrial purposes 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 decline in humid and wet nature by 17 to a maximum of 25% since 1950.

Dissipation

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

Overall, nationally and regionally, the biodiversity of fauna and flora is decreasing in the Netherlands. Many species, already uncommon, are becoming rarer, while common species have become more abundant or remained stable. There are no species where the situation is entirely satisfactory (OECD, 1995, pp. 93-97). One example is the development of the

number of seals in the Waddenzee. In 1960 the Waddenzee had a population of about 1,000 seals. By 1980 only half this number remained. The seal population returned to its former size of 1,000 in the course of the 80s, but by 1989 had dwindled again to 500 (CBS, 1990, p. 121).

Dramatic changes also occurred in the size of nature areas and forests. Since the 1920s, the total area covered by nature 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, 29 per cent had low vitality (compared with 8 per cent in 1984) and 6 per cent showed none at all (against 2 per cent in 1984).

While overall progress is being made with the extension of legal protection to nature areas and species and the creation of management structures to implement nature policy, these are not sufficient in themselves to safeguard the national resources involved (OECD, 1995, p. 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 to introduce a licensing system aimed at controlling the hazards, damage and nuisance caused by industry (De Koning, 1994, p. 13). In 1962 the term "environment" made its first official appearance in the Netherlands. In that year, the then 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 national government task in the Directorate General for Environmental Protection (DGEP). This occurred under the political responsibility of the then minister of the new Ministry of Public Health and Environmental Protection. The creation of the Ministry of Public Health and Environmental Protection led to a struggle between the environment minister and his colleagues to decide who was competent within what areas. At first the environment minister lost the battle as the DGEP was initially allocated very limited resources. No additional funding was made available for environmental policy. As the workload increased and environmental problems gained in urgency, the political will grew, notably in the Lower House, to provide the DGEP with further resources and powers. The allocation of financial and human resources showed a marked increase in the period from 1972 to 1982. The specific areas of authority also became more clearly demarcated. In 1982 the Ministry of Public Health and Environmental Protection was discontinued and its tasks were transferred to the new Ministry for Housing, Regional Development 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 was the Factory Act which had been in force since 1875.

As environmental awareness became much more widespread in the late 60s and early 70s, 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 conditions on products and behaviour. The sectoral laws introduced in the course of the 70s include the following:

sectoral law	year
Surface Water Pollution Act (Wvo)	1970
Air Pollution Act (Wlv)	1971
Chemical Waste Act (Wca)	1976
Waste Materials Act (Aw)	1977
Noise Nuisance Act (Wg)	1979

The sectoral 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, pp. 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 1993 in the incorporation of the General Provisions Act into a new Environmental Management Act. The name of the Act was deliberately changed to indicate that the amplification of the Act was designed to create an all-embracing

general law. The former name, so it was felt, might have created the impression that the scope was still limited to procedural integration, which was definitely not the case. For 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, the five licensing systems from five environmental acts - namely the Nuisance Act, the Air Pollution Act, the Noise Nuisance Act, the Waste Materials Act and the Chemical Waste Act - were transferred to the Environmental Management Act. This has made environmental legislation much more transparent and easier to enforce. A separate licence is however still required under the Surface Water Pollution Act, which falls within the responsibility of another ministry that was unwilling to transfer this task.

3.3 *Policy instruments*

The central instrument in Dutch environmental policy is the ban on performing any environmentally harmful activities without a licence. The various environmental laws put forward this ban as the cornerstone of the environmental policy instruments. For a long time, the licensing systems based on the ban were virtually the only available instruments for manipulating environmental behaviour. Recently licensing was replaced by general regulations for various sectors characterised by large numbers of small companies.

Financial instruments are less important, with the notable exceptions of the water effluent charges and the tax differentiation that was used to stimulate the introduction of cleaner cars. Various subsidy schemes are used, but have only limited influence (Bressers and Schuddeboom, 1994). Attempts to introduce an energy or carbon tax have failed so far, mostly due to strong resistance by industry and its representatives in parliament and government. An independent committee was commissioned to calculate the economic side effects on the basis of disputable scenario's. Some possibilities that nevertheless emerged as positive were swept under the carpet by the Minister for Economic Affairs (who is also responsible for energy-saving policies) even before the report was completed.

Since the reformulation of Dutch environmental policy in the first National Environmental Policy Plan, new instruments have either appeared or gained dramatically in importance. These are aimed at stimulating society and other governmental bodies to accept 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), etc. 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 much 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 implementors. 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 the 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 implementors, such as the license issuers, were understaffed. In addition, they often lacked motivation and also received too little support from the responsible administrators. As a result, they tended to respond to complaints rather than pursue an active and systematic licence-issuing policy. Systematic control was virtually non-existent.

The difficulties in providing concrete evidence of environmental infringements was a further reason to refrain from legal action and, instead, to 'talk, talk and talk again'. In other words: though the legislation was formally strict, in practice it was at best used as an informal bargaining counter in negotiations.

In the first half of the 80s, the then environment minister Winsemius (see Winsemius, 1986, pp. 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 much more regular. It was only thanks to these initiatives that at the end of the 80s 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 attention for environmental problems had also resulted in stronger administrative support for implementing the environmental laws. At the present moment, a clash is threatening between the implementors' regulation-oriented policy style and the policy-makers' emphasis on the companies' goodwill.

This problem has been recognised over the past few years and scope has been

created within the law to attach more weight to the companies' own environment plans in the licence-issuing process. Vice versa, frameworks have been created so that the temporary 'toleration' of infringements is now subject to clearer rules. However, there is still a long way to go before the problem of opposed policy styles has been definitely 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 into the vertical and horizontal distribution of powers between these policy institutions. Horizontal distribution entails that powers have been divided between different departments of higher or lower authorities. This is discussed at length in section 5 (integrative solutions). Vertical distribution relates 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, 1987, p. 241). Initially, environmental regulations were exclusively made at local level. The municipality long remained the only government body involved in the issuing and monitoring of licences (Boersema et al., 1991, pp. 65-66). As a result of the environmental laws introduced in the 70s, 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, technically complicated and potentially highly-polluting companies. National government concentrates primarily on national legislation and regulations as well as on the planning of national environmental policy, including targets and norms.

This, however, by no means entails 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 the plans made at the various government levels are not governed by any hierarchical order. Vertical fine-tuning must take place by means of, in principle, 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.

The attention devoted to the environment at the policy institutions varies over

time. Like the general public, policy institutions are inclined to show greater interest in the environment in times of economic prosperity. But once awareness has reached a certain level, it tends to be sustained for a while after the economy starts to slow down again (see below 'public attitude'). The graph below shows the level of attention devoted over the years to the environment in the Queen's annual budget day speeches.

Figure 8, The length of the environmental policy paragraphs in the Queen's speech and the annual changes in the national income

IN QUEEN'S BUDGET DAY SPEECHES

The line: annual changes (%) in the real national income (CBS). The bars: words devoted to the environment as a percentage of the total. The scale is reflected on the y-axis. Source: 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 from a recreational point of view. 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 nature movements. Until a few years ago, they did not concern themselves with general political objectives (Leroy and De Geest, 1985, pp. 94-97).

In the period around 1968-1972 a series of environmental incidents prompted growing worries over the environment in the Netherlands. A new environmental 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, pp. 41-42). First of all, there was a thematic difference: unlike the nature conservation movement, the new environmental movement was not exclusively interested in the protection of ecologically valuable areas. It was also - and still is - interested in combatting pollution and the relentless depletion of natural resources. Secondly, the two types of movement had different strategies. Unlike the nature conservationists, the environmental movement 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 clashed much more regularly and violently with certain prevailing values and norms. Initially, many environmental groups lacked a formal internal structure. This meant that support had to be drummed up for each new action. The resulting expertise and skills in the mobilisation and organisation of social protest actions became important strategic weapons in their hands.

Towards the end of the 70s, as the popularity of "extra-parliamentary" actions was beginning to wane (Nelissen, 1987, p. 231), many environmental organisations and action groups changed their strategy and were now prepared to meet government around the negotiating table. The timing couldn't 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, this status was even laid down by law. To fulfil 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 largely developed 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 for committees and other consultative structures in and outside government. As noted, 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 and environmental movements are united through 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 jointly have roughly 50,000 *active* members. The number of non-active members is much 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 an explosive growth in membership

over the past years thanks to large-scale membership recruitment campaigns. It is, perhaps, worth noting that both are managed by former environment ministers who were immensely popular in the 80s.

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

nature/environmental organisation	Total membership around 1975	Total membership around 1985	Total membership in 1995
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 to achieve a more integral 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 a much stronger say in all further stages of the policy process. The cooperative - and sometimes even extremely positive - attitude of many industry organisations has been a great help in this connection.

In creating a consultative structure between the government and the industry 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. Usually these arrangements are laid down 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 know-how necessary to reduce environmental pollution can be largely found at 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 environmental care an integral part of their business processes. The industry organisations can promote this process by developing model environmental

management systems which companies can use to create their own internal systems and procedures.

Though the industry 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 or even obstructive, while employers' and employees' organisations also tend to keep their distance. In 1994, however, the latter surprisingly brought out 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 much more difficult to reach by means of target group policy (States General, National Environmental Policy Plan, 1993).

The media and others

In the late 60s and early 70s, alarming scientific as well as more popular publications dramatically highlighted the environmental problem, 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 new up-and-coming environmental movement.

As in the early 70s, the media still have the power to influence public opinion by devoting more or less time to environmental issues. Research by Gutteling and Caljé (1993) confirms that strong media attention for the environment results in greater concern among the population. Ester (1979, p. 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, pp. 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). This entails that people's views on the environment are largely determined by the paper they read (Wiegman et al., 1989, pp. 846-852). The figure below indicates the attention devoted to the environment in several Dutch newspapers over the period 1977 to 1984. This incidentally concerns a period between two peaks of media attention for the environment. 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, p.7). The attention devoted in these newspapers to the environment has been operationalised on the basis of the number of articles on environmental risks.

Source: 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 MER environment effect report, which came into force in the Netherlands in 1987. The MER 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, p. 127). The inclusion of the most environmentally friendly alternative is legally required. The other alternatives that may be incorporated depend on the outcome of the negotiations between the initiator of the MER (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 MER 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). The MER procedure furthermore provides for extensive participation opportunities for all interested parties.

The Environmental Management Act, which became effective 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 participation, objection and appeal procedures have become a bone of contention in the Netherlands. This emerged clearly in the debate on the need to strengthen the dykes which flared up after the recent threat of flooding in 1995. The fact that the dykes almost broke was blamed on the environmental organisations which had pursued lengthy objection and appeal procedures against the strengthening of the dykes on the grounds that the proposed plans inflicted unnecessary damage on the landscape. In actual fact, the need to strengthen the dykes had been known for decades and, during the greatest part of this period, the necessary improvements were not postponed because of the objection procedures but simply because of lack of funds.

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 support national public health inspection. In this connection, the RIVM keeps records and makes predictions of the current and future quality of the environment on the basis of model calculations. So far the RIVM, working in cooperation with other institutes like the CPB (Central Planning Bureau), has published three national environment surveys, namely 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 are undertaken on its own initiative. The remaining eighty per cent concerns commissions for the government (RIVM, 1994, p. 4). From 1995 the RIVM will bring out an annual Environment Report, containing the latest environmental data as well as indicating 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 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 fulfilled by the extensive policy research that is conducted (see section 5).

Money

Initially there were serious problems keeping the expenditures of the Environmental Management Directorate General in check, partly because the organisation did not have its own financial department which 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 80s, with the institutionalisation of a financial department, that the accountants started to play an important role (De Koning, p. 203).

The expenditures of the directorate general increased from 289 million guilders in 1976, via 608 million in 1980, 998 million in 1985 and 1,269 million in 1990, to 1,583 million in 1993. Even after adjusting the figures for inflation, the increase since 1977 remains substantial. Environmental expenditure is predominantly aimed at water pollution (37 per cent), waste management (23 per cent) and air pollution (17 per cent). The total environmental expenditures 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, pp. 114-116). The total environmental costs for 1991 are estimated at almost 10 billion guilders. The largest part of the government's environmental expenditures are paid from specific duties and charges. Some of these duties have an additional regulatory effect. The water pollution duty is a good example of this.

The 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 authorities, national governmental provided substantial special grants on a temporary basis. These individual transfer payments are to disappear eventually (Brussaard, pp. 47-48).

Public attitude, trust and prestige

Below a diagrammatic representation is given of public opinion concerning various national problems in the Netherlands between 1967 and 1994. The table shows that the importance attached to the environmental issue has not been stable over the years. This stands in contrast with the unemployment problem which, except for in the early 70s, has consistently been seen by the electorate as one of the most important problems throughout the period 1967-1994 (Aarts, 1995, p.4).

NETHERLANDS TO THE ELECTORATE

Over the past decades, attention for environmental problems has risen and receded in a wave-like pattern. The first wave of strong environmental concern took place in the first half of the 70s. As noted earlier, it was in this period that extensive media coverage first provoked widespread interest in the environment among the public at large. The oil crisis from 1973-1974 and the subsequent economic recession caused this interest to wane after 1974. At the end of the 80s (1989) the environment issue was clearly back on the public agenda. This is the period of the second environment wave. What this seems to suggest is that public attention for environmental problems in the Netherlands is subject to a cyclical movement 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 cyclical movement 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

instability of public attention for the environment, incidentally, discourages politicians from taking strong standpoints and seeking public support for radical policy measures.

International context

In the Netherlands the international context is generally, and perhaps wrongly, not seen as a possible source of power. The chapter on international environmental policy in the Dutch environmental programme 1995-1998 (States General, 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 mix of self-interest and a sense of being co-responsible' (see Kakebeeke, 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 power for parties seeking to further the environmental cause. The best example of this is possibly still 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

Environmental policy is as much a facet of overall government policy as it is an individual sector. Particularly when it comes to achieving sustainable development, virtually no sub-territory of government policy is irrelevant. 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 redivision and a lowering of the ground water level to facilitate agricultural mechanisation at the expense of nature.

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 of the Ministry of the Environment to take advantage of the wave of sympathy and attention for environmental issues in the late 80s in order to secure the commitment of the other relevant ministries to environmental objectives. This process was certainly not free of tensions. 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 home-work travel in an effort to slow down the growth in mobility. As soon as the new Minister of Transport and Public Works had been appointed, she publicly put the new Environment Minister in his place, stating: "there's only one minister of transport and that's me!" These kinds of tensions - though generally less openly expressed - are symptomatic of the relations between the various departments which formally have to work together to create a better environment. Similarly at other administrative levels, like provinces and municipalities, environmental policy plans are made which, at least in part, can be seen as efforts to enable 'other' policy fields to cooperate in the promotion of sustainable development. In 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. Provincial and municipal environmental policy plans must still reveal how this aim is given concrete shape. 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 stand up for the environment within their own organisation.

One special way of achieving policy integration is the so-called 'field-oriented policy'. In this connection, government organisations and non-government organisations which are relevant to the quality of the environment are brought together as far as 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 entrench themselves in their respective positions. The experiences with this form of network management so far have 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 and 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-government, must abandon their strictly 'engineering-based orientation' and become more focused on consultation 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

Prior to the publication of the earliest general government memorandum on environmental policy (States General, 1972), the explanatory memorandum to the bill for the Surface Water Pollution Act only referred to water pollution in terms of human use. Water, itself, was exclusively seen as a production factor (States General, 1964). The memorandum of 1972 centred on public health, which was defined as physical, mental and social well-being. This implied that attention was also devoted to e.g. the aesthetic aspect of water. On the other hand, the memorandum did not go so far as to assign intrinsic value to the well-being of non-human organisms. When the memorandum was discussed in parliament, the minister admitted that this point could 'suggest that the document contained a self-contradiction' (Bressers, 1979: 80). She hesitatingly confirmed that 'even where there was no direct threat to human well-being, mismanagement of the environment should be condemned'.

Nature

This 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. Ministry of Transport and Public Works, 1975). Naturally it is questionable to what extent this far-reaching standpoint, where ecological considerations prevail over anthropocentric concerns, ever had a sufficiently broad base of support. In all likelihood, it is at least partly an expression of naive optimism regarding the manageability of environmental problems and the 'makeability of society' in general. In the second half of the 80s, however, it became clear that policy effects repeatedly fell 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 '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 as an interrelated whole for the first time. 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' (States General, 1989).

Subsequently, the concept of sustainability was developed further in the term 'ecological user space' (RMNO, Opschoor), which sought to define the permissible environmental impact and the permissible use of raw materials given the capacity of the global environment and the needs of future generations and other countries. Note, incidentally, that this still exclusively concerns 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, implicitly or explicitly, involves political choices in which different interests are weighed up. Consequently, various lines of action could be defended from different perspectives. The people who had conceived the NMP were accused of having opted too easily for a specific 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 of the scientific council was followed.

This debate does show that, 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 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 primarily for this 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 effect of permits and other policy instruments (cf. Schuddeboom, 1994).

The first major studies of the effects of environmental policy centred on the Nuisance Act. The results of these initial studies came as a bombshell. It was estimated that in 1976 only 25% of the relevant businesses had valid licences. Hardly impressive, considering that the act had been in force since 1952 and had precursors dating back even further.

In 1972 the Air Pollution Act came into force. By 1 January 1976 about half of the businesses concerned had applied for licences and in 60% of the cases licences had indeed been issued (Twijnstra Gudde, 1976). So it is fair to say things got off to a rather slow start. One study in the early 1980s concluded that about eight years after the act became effective, three-quarters of the businesses concerned had been issued with licences. According to the provincial authorities themselves, two-thirds had 'adequate' licences (Twijnstra Gudde, 1981). A study of the Rijnmond area (where the refineries are concentrated) revealed that the levels of SO₂ emission had fallen between 1974 and 1980, but that this had little bearing on the licensing requirements. Far from it, in fact. For these requirements permitted pollution levels one-and-a-half times higher than those actually produced.

From 1970 to 1980 organic pollution from industrial effluents fell by two-thirds. Research (Bressers, 1983a, 1983b, 1988 and Schuurman, 1988) showed that almost all credit for this reduction went to the charges. The licences introduced at the same time as the charges had had little effect. This is a striking result, considering that it was the licences, not the charges, that were officially designed to manipulate the environmental behaviour of businesses.

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 very impressive. The dominating policy instrument - i.e. licences - was in practice bedevilled by implementation problems and, as a result, largely ineffective. One could summarise 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 insights of - the 1970s have been achieved, but our current insights tell us we need to achieve objectives that reach at least twice as far.

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

Efficiency

In the 80s (1980-1989) the total environmental costs rose from less than four billion guilders to 7.3 billion guilders. Of this amount, 800 million guilders were spent on 'executive tasks' in 1989: i.e. drafting laws, norms and regulations and the licence-issuing system. Arentsen, Klok and Maarse (1993: 224) conclude that in the 80s a large portion of the government's environmental expenditures were spent on policy development. They also note a tendency to pass on the responsibility for part of these 'executive tasks' to companies. The direct environmental expenditures of companies ran to 1,757 million guilders in 1989, of which 4% was destined for 'executive tasks' as opposed to 0% only a few years earlier. In practice these tasks often involve the services of consultants who help with the preparation of license applications and negotiations with government. Owing to the complexity of environmental legislation, the authorities are also increasingly engaging consultants. Basically the companies also pay for these consultants. After all, in addition to their direct environmental expenditures, companies must also pay license duties and other levies which are used to finance part of the government's environmental expenditures. Incidentally - 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 80s, substantial additional expenditures were made on the environment. In the second National Environmental Policy Plan (States General, 1993), the growth in total environmental costs was estimated (in prices of 1994) at 17.5 billion in 1995 (almost 2.5 x 1989!), via 22.8 billion in 2000 to 26.5 billion guilders in 2010. For the year 2000 the government expects that every year 3.25 to 3.5% of the gross domestic product will be spent on environmental measures.

However, giving an overview of actual and expected expenditures is less difficult than answering the question whether the same results could have been achieved with less resources or better results with the same resources. To evaluate the efficiency of a policy, it is necessary to know the effects of that policy. Unfortunately, this knowledge is not always available. Nor is there a reliable yardstick for making this evaluation. In general, it can be said that soon after the National Environmental Policy Plan resulted in an intensification of the 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 virtually a 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 70s and early 80s, people became increasingly aware of the disadvantages and limitations of the sectoral environmental policy pursued so far (Leroy, 1994: 42). As a consequence, efforts were made in various ways to integrate the policy. Environmental policy was no longer renewed 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), flows of materials (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 been given concrete shape in plans, laws and institutions so that, thanks to these efforts, major progress has been achieved.

Since the National Environmental Policy Plan, much 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 the national environmental policy (States General, 1990). This fine-tuning should not only take place 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. The aforementioned policy sectors are prepared to recognise that their policy is relevant to the environment, but the traditional policy objectives remain their overriding concern. Over the past years this has been particularly clear with important government decisions on infrastructure. In these cases economic interests always, either implicitly or explicitly, took precedence over environmental considerations. One clear example was the decision to go ahead with the major expansion of Schiphol airport into a European 'mainport'. Despite the importance ostensibly attached to the environment, this issue basically centred on the familiar power struggle between different vested interests in society and their representatives within the government.

Time perspective

The challenge of environmental policy has shifted from winning corporate cooperation to harnessing corporate creativity. Creativity cannot be squeezed out of the companies by a regulatory stranglehold, at least not now so many aspects are involved concurrently. 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 in environmental policy. However, this track soon clashes with direct regulations which stipulate requirements concerning e.g. equipment or technology and even with those that set specific targets. Irritation provoked among the business community by such "two-track control" can easily undermine the good will and commitment which are precisely the key benefits of target-group consultation.

The only way out of this dilemma is to make a differentiation, in terms of both the application and the nature of the legal instruments, between positive and active companies, law-abiding but passive companies, and uncooperative 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 -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 business environmental plan. In such cases, policy enforcement can partly take place through audited progress reports. With other companies, however, government must retain the possibility of issuing instructions, and even, where necessary, by demanding certain clean-up technologies.

Target-group consultation, therefore, 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. One model that could be followed in this context is the institutionalisation of the consultation between government, industry and the trade unions. Like collective labour agreements, covenants could be given retrospective binding force.

One advantage of this would be that companies which refuse to participate in the consultative process can no longer claim that this exempts them from the arrangements made. Naturally, institutional reforms create their own dynamics and the consequences of this must be carefully weighed up in advance. But the far-reaching aspirations for sustainable environmental development (in our view comparable with the social reform movement at the turn of the century) and the growing significance of various forms of consultation make it imperative, in our opinion, to find an appropriate institutional form.

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