Strategies of Environmental Organisations in the Netherlands regarding the Ozone Depletion Problem

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ABSTRACT: Strategies of environmental organisations in the Netherlands regarding the ozone depletion problem have been analysed both at the cognitive level and at the operational level. The first objective of this analysis was to describe their strategies over a period of time. Secondly, it aimed to increase understanding of the linkage between cognitive and operational aspects of the strategies. The third objective was to find out to what extent strategies are constant features of an organisation and how far they are defined by particular problems. The results indicate that each of the organisations concerned with the ozone depletion problem adopted several different strategies, that the strategies of the organisations did not change much over time, and that there was no one-to-one linking of different aspects of the strategy of the organisations. Strategies seem largely to be defined by the problem encountered.

KEYWORDS: Strategy, ecocentrism, anthropocentrism, environmental organisation, environmental movement, ozone depletion

1. INTRODUCTION

A feature of the present environmental movement, both in the Netherlands and in other countries is its diversity or – if you like – its fragmentation (see e.g. Dunlap and Mertig, 1992; Finger, 1992, for contrasting views). To describe this diverse movement, categorisations have often been based on characteristic aspects of their work. For example, distinctions can be made between conservationism, environmentalism, and ecologism (Rucht, 1989); or between lobbying organisations and nonlobbying organisations. Nonlobbying organisations may be involved in such activities as research, litigation, land purchase and maintenance programmes, education programmes and grassroots organising (Mitchell

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et al., 1992). Such categorisations assume that each organisation has a more or less constant character, concentrating on one characteristic strategy.

The question is posed here, whether such a constant character is actually observed, or whether actual strategies are also related to the specifics of the problem. If the latter is the case, it would imply that different strategies – for different environmental problems – might be seen in one and the same organisation. These strategies could perhaps coexist at the same time. An answer to this question would assist our insight into the way the strategies of environmental organisations are developed in practice, and refine presently available theories about the strategies of environmental organisations. Environmental organisations themselves could also profit from such new insights when developing future strategies.

In this paper, the strategies of environmental organisations in the Netherlands regarding the ozone depletion problem are analysed. Both the dynamics in strategies of these organisations and the relationships between different aspects of the strategies were investigated.

2. THE CONCEPTS 'APPROACH' AND 'METHOD'

The study focuses on two aspects of the strategy: one at the cognitive level (the 'approach'), and one at the operational level (the 'method'). An *approach* is defined as 'the vision of the relation between man and nature'. A *method* is defined as 'concerted, logically linked forms of action aimed at the achievement of ends'.

Approach

At the cognitive level, it has often been claimed that the way someone (or an organisation) looks at the world is a crucial element in the perception of a problem and the responses to it (e.g. Douglas and Wildavsky, 1983; Dryzek and Lester, 1989; Klandermans, 1992). In relation to environmental problems, it has been explicitly argued that these problems are caused by deep-rooted attitudes common to both socialist societies and the West (Attfield, 1983: 17) and that 'environmental reform ultimately depends on changing values' (Nash, 1983; cited in Callicott, 1986: 382).

Several authors have specified the values that are most important regarding environmental problems. For instance, Kockelkoren et al. (1994: 255) consider the rise of environmental problems to be inherent in modern western culture, since 'reality has been reduced to raw material for human manipulation'. Dobson (1990: 63) argued that 'concern for ourselves at the expense of concern for the non-human world is held to be a basic cause of environmental degradation and potential disaster'. Stortenbeker (1990: 330) held that the environmental crisis

is caused by the attitude of mankind to the environment; while according to Achterberg (1986: 9) solving the environmental problem requires a relationship between man and nature different from the dominating one in western cultural tradition. These authors all concentrate on the (vision of) the relation between man and nature – the approach, which can be seen as a reflection of the value attached to human beings compared to other entities[1] in nature.

Although different categorisations can be made, describing several fundamental approaches towards nature (see e.g. Naess, 1973; Passmore, 1974; Attfield, 1983; Rodman, 1983; Callicott, 1986; Zweers, 1992; Fox, 1994), the distinction I shall use is between a purely anthropocentric and a purely ecocentric approach. In practice, no organisation will probably ever meet the criteria for a purely anthropocentric or purely ecocentric approach, but a description of the two extremes can be helpful in an analysis.

An *anthropocentric* approach attributes intrinsic value only to human beings and judges the value of all other beings by their contribution to the realisation of the interests of human beings (e.g. Passmore, 1974; Taylor, 1986).

An *ecocentric* approach attributes intrinsic value to (some) natural entities, such as organisms, species and ecosystems. A problem in the elaboration of this approach is that the allocation of values is a human affair and, in this way, anthropocentric. This point will not be worked out here (see e.g. Taylor, 1981).

A simple but usable interpretation is that an *anthropocentric* approach concentrates on human interests, while an *ecocentric* approach considers all nature (including humans).

A typical anthropocentric approach to environmental problems

An anthropocentric approach may be deduced from the way an organisation defines an environmental problem. The problem can for instance be framed as a change in the environment harmful to human well-being (Zweers, 1984: 107). A typical anthropocentric assessment of the danger of an environmental problem concentrates on impacts on human beings: so, an estimation of the risk of a problem affecting nature might be expressed simply in terms of human mortality. Regarding the abatement of environmental problems, a typical anthropocentric approach would concentrate on target levels that safeguard human health, or propose measures that are primarily intended to decrease the effects for human beings or crops (e.g. wearing sun-glasses to counter increased UV-levels caused by stratospheric ozone depletion).

A typical ecocentric approach to environmental problems

A typical ecocentric approach to an environmental problem interprets it as a problem for nature itself, not only for human beings. A typical ecocentric assessment of the danger of an environmental problem concentrates on impacts on ecosystems that are highly sensitive to the changes in environment, e.g., in the case of stratospheric ozone depletion, plants sensitive to increased UV-levels.

Regarding the abatement of environmental problems, a typical ecocentric approach would concentrate on target levels that safeguard sensitive ecosystems, or propose measures that are primarily intended to decrease the effects for these ecosystems.

Method

Different methods can be used by environmental organisations to achieve their ends. The 'method' in this sense is related to the concept of 'political strategy'. Cramer (1989) defined political strategy as 'the specific forms of political actions advocated by a certain group to achieve its political ends'.[2] She assumed that there are three important political strategies for the national environmentally-oriented organisations in the Netherlands. These political strategies are: influencing governmental policy; mobilising the public; and developing and practising environmentally friendly exemplary alternatives. Because of the more general character of my definition of method (concentrating on 'ends' instead of 'political ends'), these three categories could be generalised to describe three important methods for all environmental organisations (including both nature-oriented and environmentally-oriented organisations). These are: (1) influencing governmental policy; (2) influencing public opinion or public behaviour; and (3) offering alternatives. In their responses to environmental problems, organisations adopting the first method concentrate on such activities as lobbying, participating in advisory committees, and writing letters to politicians. The second group concentrate on reaching their goals through information and education, actions, starting local groups, etc. Instead of reacting to specific environmental problems, representatives of the third group primarily engage in alternative environmentally friendly activities. These alternatives might involve organic farming or purchasing nature reserves. The public is confronted with these alternatives mainly through information and education by the organisations.

It is an empirical question which methods were used by the organisations studied. The possibility remains that other methods were employed beside those presented here.

3. BACKGROUND

Research design

To define the strategies of the organisations towards the ozone depletion problem, their approaches and methods adopted were deduced for the period 1975-1992. On the basis of these data, the existence of linkages between approaches and methods was investigated, i.e. are certain methods linked to certain approaches (or reverse)?

To deduce the approach and method, five aspects of the decision-making process of the organisations relative to ozone depletion were analysed. These five parts were:

1) Issue Framing – how the problem was defined and framed in relation to and in connection with other problems and issues;
2) Risk Assessment – the understanding about the nature, causes, and impacts of the problem;
3) Target Setting – statements of objectives, or of conditions put forward in relation to the problem;
4) Response Formulation – responses put forward for achieving the targets; and,
5) Implementation – actions actually taken regarding the problem.

These five aspects can be related to the typical anthropocentric and ecocentric approaches as shown in Table 1.

	Anthropocentric	**Ecocentric**
Issue Framing	problem defined as a problem for human interests	problem defined as a problem for nature
Risk Assessment for Impacts	assessment concentrates on impacts for human interests	assessment concentrates on impacts for sensitive ecosystems
Target Setting	target levels are set to safeguard human interests	target levels are set to safeguard sensitive ecosystems
Response Formulation/ Implementation	measures proposed/ implemented are meant to decrease the effects for human interests	measures proposed/ implemented are meant to decrease the effects for sensitive ecosystems

TABLE 1. Typical approaches in relation to parts of the decision-making process

As the method of an organisation regarding environmental problems is its considered and actual response to those problems, the method mainly relates to the parts *Response Formulation* and *Implementation*. In Response Formulation the intended actions are given, while Implementation describes the actions

actually pursued. Also, the way a problem is defined (*Issue Framing*) can sometimes tell something about the method adopted. When a problem is defined, for instance, as a 'problem of capitalism, which cannot be seen separately from the general class struggle in society', this may hint at a method which concentrates on influencing the public (see also Jamison et al., 1990).

The above has been summarised in Table 2.

Relevance of parts of the decision-making process	Approach	Method
1. Issue Framing	X	X
2. Risk Assessment	X	
3. Target Setting	X	
4. Response Formulation	X	X
5. Implementation	X	X

TABLE 2. Relevance of parts of the decision-making process for the approach and the method. The parts that are especially relevant for the description of the approach or the method have been marked by an ' X'.

Selection of organisations

The five environmental organisations investigated were:

* SNM: Stichting Natuur en Milieu (The Netherlands Society for Nature and Environment);
* IVN: Vereniging voor Natuur- en Milieueducatie (Society for Environmental Education);
* VMD: Vereniging Milieudefensie (Dutch branch of Friends of the Earth);
* VBN: Vereniging tot Behoud van Natuurmonumenten (Society for the Preservation of Nature in the Netherlands) and
* DKA: De Kleine Aarde (The Small Earth).

These organisations were chosen because they represent a wide variety both in their main orientation (on nature or on the environment) and in their main methods. It should be emphasised that the concept of 'orientation' is not identical to the concept of 'approach'. An orientation merely shows the area of attention, while the approach reveals the value connected to that area.[3] While only two orientations were considered, it was not clear in advance how many and what

methods might be adopted by environmental organisations. Therefore – as a means of selection – the methods were classified into the three categories described in Section 2. The classification of the five[4] organisations according to the two main orientations and three main methods is given in Table 3.

Main orientation	Nature-oriented	Environmentally-oriented
Main method		
1. Influencers of governmental policy	SNM (CNL)[4]	SNM (NVWBL)[4]
2. Influencers of public opinion or public behaviour	IVN	VMD
3. Offerers of alternatives	VBN	DKA

TABLE 3. Classification of organisations used in this study

Ozone depletion in the Netherlands: some general trends

For the ozone depletion problem, three distinct periods can be observed in the Netherlands: two periods of high attention, interrupted by a period of low attention.

The first period is from 1975 to 1981, following the publication of the article by Rowland and Molina in 1974. In the second period, between 1981 and 1985, there is a relative lack of concern. The third period starts in 1985, triggered by the discovery of the antarctic ozone hole at the end of 1984.

Before the first period of high attention for the ozone problem, attention had already been paid to the subject in *Milieudefensie*, the magazine of VMD in 1973. In an article about changes in the world climate it was argued that supersonic aeroplanes could decrease the ozone concentration by a factor of two (van den Bogaardt, 1973).

In 1975, the initiative in reacting to the scientific data was not with environmental groups, but with a left wing political party, the PPR. In 1975 the PPR stated that the ozone layer, vital for life on earth, was being seriously threatened by some recent 'fruits' of progress. They noted that besides supersonic aeroplanes and nuclear explosions, American research now revealed that freon was an even more serious threat to the ozone layer (PPR, 1975).

In February 1975, fourteen national organisations and hundreds of local groups complied with a PPR request to join in a consumer boycott. The national organisations included political parties, trade unions, consumer organisations

and environmental organisations (including SNM and VMD). Consumers were enjoined not to buy spray cans any more. Letters were sent to the producers of spray cans requesting an end to the use of CFCs. The spray can was chosen as action target because it was also an illustration of the 'throw-away society' (Pleune, 1993). After the start of the boycott, the sale of spray cans decreased by 17% in 1975 and by 19% in 1976. The ozone depleting problem was at that time very clearly framed as a spray can problem. Industry and government acted only in reaction to the activities of other agents (van Eijndhoven et al., 1993).

In the post-1985 period, the initiative in getting attention back to the ozone depletion problem was with the environmental organisations. At the start of 1987, Reijnders (SNM) initiated the national Freon Platform, which consisted of eight organisations: four environmental organisations (SNM, VMD, IUCN-ledencontact and Aktie Strohalm), three consumer organisations, and one political party (PPR). This time, actions were directed against different CFC sources.

The spray can problem was now turned into an ozone hole problem. However, spray cans remained an important target of public actions until the end of 1987, when a new consumer boycott was organised by the Freon Platform together with about hundred local groups. Within two months of the start of the boycott, a covenant on the abolition of CFC-containing spray cans was signed by government and spray can producers. After 1988, the environmental organisations (mainly SNM and VMD) concentrated on exerting pressure on industries and the government to reduce the other applications of CFCs (e.g. in refrigerators and foams).

4. RESULTS

Descriptions of the approaches and methods for each of the five environmental organisations are given below. Where possible, these descriptions are illustrated by reference to some examples (given in small type).

SNM

Approach

The approach of SNM is a mix of anthropocentrism and ecocentrism. It seems that in general pronouncements or publications of SNM an ecocentric approach prevails. The ecocentric approach is evident, for instance, in the annual report for 1986 where the issue is presented as an 'illustration of the irreversibility of human interference in the thin skin of life that surrounds our planet' (SNM, 1987; comparable statements in SNM, 1988; and SNM, 1989); while in information devoted specifically to the ozone

depletion problem purely anthropocentric pronouncements can also be found, such as assessments of the risk of human beings getting cancer (e.g. Vonkeman, 1977; Reijnders, 1987), or of the potential impacts on crops (e.g. Reijnders, 1980; Reijnders and Kroeze, 1990).[5]

Method

The method of SNM combines of the influencing of (or pressure on) government and industries, and the influencing of public opinion. Regularly, government activities were criticised (e.g. Reijnders, 1980; SNM, 1991) and proposals were given for measures to be taken (e.g. Reijnders, 1980; SNM, 1989). Industry was pressurised both by direct communication (e.g. Reijnders, 1987; SNM, 1990) or via public opinion through the consumer boycotts of spray cans in 1975 and 1987. Public opinion was influenced by dissemination of information (e.g. SNM, 1988) or through the consumer actions. There does not seem to be much variation over time in the kinds of methods that were applied, although there was little direct pressure on industries before 1987.

IVN

Approach

Although not much material on ozone depletion is available for IVN, this material clearly represents an ecocentric approach. The issue has been framed as a 'collapse of the ecology' (IVN, 1990), while the impact assessment describes effects on sensitive species of animals (de Jongh, 1987).

Method

Until 1980 the method of the IVN regarding environmental problems like ozone depletion combined influencing public behaviour and offering alternatives by showing people the beauty of nature. After 1980 a gradual change in this strategy took place towards influencing public behaviour by confronting people with environmental problems.

VMD

Approach

Although it has made some statements about organisms sensitive to ozone depletion, VMD generally adopted an anthropocentric approach. A statement on sensitive ecosystems is the damage to organisms living in the upper sea (VMD, 1987), while the more general anthropocentric approach can be illustrated by, for example, the attention to 'our health and the environment' (VMD/DKA, 1975), skin cancer (e.g. Wams, 1987a), or ozone depletion above civilised parts of the earth (Wams and Buitenkamp, 1987).

Method
The method mainly applied by VMD was to put pressure on industries. VMD was also engaged in the influencing of public opinion, and – mostly with other organisations – the influencing of government policy. The pressure on industries was either direct (e.g. Wams, 1987a; pers. comm. VMD, 1993) or indirect, through the consumer actions of 1975 and 1987. The influencing of public opinion was both direct, through information dissemination (e.g. Wams, 1987b; VMD, 1988), and indirect, through the consumer actions. The influencing of government policy as a joint strategy with other organisations is shown e.g. in Wams (1987a) and SNM (1991).

VBN

Approach
The (limited amount of) material presented on ozone depletion by the VBN seems to show an ecocentric approach. This could be illustrated by the impact assessment that 'depletion of the ozone layer does no good for humans, for life in the world seas, for life on earth generally' (VBN, 1989).

Method
VBN chose not to be specifically involved with the ozone depletion problem because ozone depletion was assumed to have no impacts on their nature reserves. Therefore, VBN concentrated on their more general offering of alternatives via purchasing and maintenance of these nature areas. When impacts from ozone depletion occur such a strategy might change (pers. comm. van Tooren, 1992).

DKA

Approach
The material presented on ozone depletion by DKA clearly represents an anthropocentric approach. Impact assessments at different moments all concentrate on health effects for human beings (e.g. DKA, 1977; DKA, 1992).

Method
DKA did not want to concentrate on the ozone depletion problem but rather to work out and present solutions for environmental problems generally. Thus, the method of DKA can be characterised as the offering of alternatives.

5. SUMMARY OF THE RESULTS

It appears that the approaches and methods regarding the ozone depletion problem generally do not change much over time. But, it should be kept in mind that there is a clear 'quiet' period from 1981 to 1985. SNM and VMD were much more involved with the problem than the other three organisations.

Approaches

The approaches of the nature-oriented organisations IVN and VBN are generally ecocentric, while the approaches of the environmentally-oriented organisations VMD and DKA generally turn out to be anthropocentric. SNM – the organisation with a mixed orientation – adopted a mix of anthropocentric and ecocentric approaches regarding the ozone depletion problem.[6]

Methods

The methods used by VBN and DKA involved the offering of alternatives. They chose not to be specifically involved with the ozone depletion problem. VBN decided this, because ozone depletion was considered not to have impacts in their nature reserves. DKA did not want to concentrate on one problem, but rather to follow an integrated policy regarding environmental problems. The IVN practised the offering of alternatives together with the influencing of public behaviour until 1980, but from 1980 they mainly concentrated on the latter. This influencing of the public was mainly carried out through educational activities at the local level.

SNM and VMD both influenced industries, government and public opinion. In general, there was a sequence in the use of these methods: initially, they informed public, industries and government about the problem and its solutions; next, they put pressure on the different groups to change their policy. The adoption of influencing industry and the common ranges of strategies are striking features here. Influencing industry was less important for SNM before 1987, but was the most important method for VMD during the whole period. When they acted separately, SNM usually adopted the method of influencing government, while VMD laid emphasis on influencing public opinion.

The approaches and methods of the different organisations with respect to the ozone depletion problem are summarised in Table 4.

	Approach	Method*
SNM	Anthropocentric/ Ecocentric	1975-1981: G,P,I 1985-1986: G,P 1987-1992: G,P,I
IVN	Ecocentric	1975-1979: O 1987-1992: P
VMD	Anthropocentric	I,P,G
VBN	Ecocentric	O
DKA	Anthropocentric	O

TABLE 4. Methods and approaches regarding ozone depletion for five environmental organisations in the Netherlands.

*G stands for the influencing of governments, I for the influencing of industries, P for the influencing of the public and O for the offering of alternatives. Underlining indicates that there are clear indications, that these performances are more important.

6. DISCUSSION

Quiet period

The existence of a quiet period from 1981 until 1985 does not seem to be specific to the Netherlands, because the same quiet period was also found in Germany and in the USA (Jäger et al., 1992; Dickson et al., 1992). This suggests that the existence of the period cannot be explained by country-specific political preconditions. An alternative explanation could be the degree of attention to other environmental problems. Analyses of attention to the acidification problem in the Netherlands based on a yearly publication of the CRMH (National Council for Environmental Policy) and on a daily newspaper 'De Volkskrant' show peaks in 1984 (van Eijndhoven et al., 1994; see Figure 1; Galetzka, 1994). This indicates that acidification was an important issue in Dutch society at that time. For environmental organisations in the Netherlands, the main period of attention was 1984-1989 (Pleune, 1994). From 1981 to 1984 however, environmental organisations in the Netherlands were 'heavily involved' (van der Heijden et al., 1992, 26) in the Broad Societal Debate on Energy (e.g. SNM, 1983; VMD, 1983). Thus, it seems that, at least in the Netherlands, the low attention for ozone depletion in 1981-1985 can be explained by the attention beimng paid to other environmental problems, together with the absence of new dramatic scientific data on the ozone layer depletion. The importance of the latter was shown at the end of 1984, when the discovery of the antarctic ozone hole sharply increased again the attention for ozone depletion (see Figure 1).

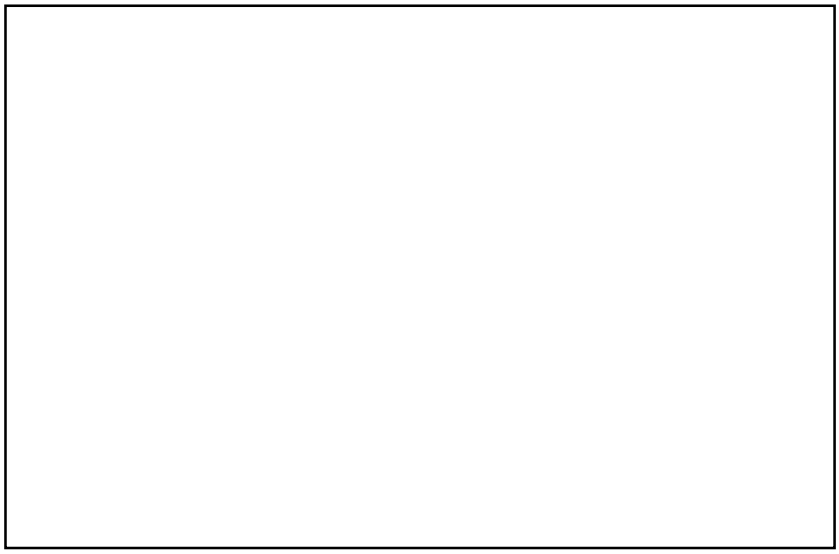

FIGURE 1. Attention cycles based on *Milieu van jaar tot jaar*.*

*'The environment from year to year' – a yearly Dutch publication about the state of the environment published by the National Council for Environmental Policy. Source: van der Sluijs, pers. comm., 1995.

Static character

The approaches and the methods of the organisations did not change much over time, despite developments in the scientific and political field[7] that might have led one to expect otherwise. This is probably connected with the way environmental organisations framed the issue in similar terms throughout the period (i.e. mainly as a spray can problem); and the way they generally described its impacts in terms of the effects on human beings (skin cancer). The emphasis on spray cans is understandable, especially during the first period, when the environmental organisations generally considered it important to fight against the capitalistic consumer society.[8] The spray can was a good example of the 'throw-away character' of products. Additionally, the actions led to clear results (an important decrease in the sale of spray cans in the first period and an acceleration of the process leading to the signing of a covenant between the government and spray can producers in the second period). More specific explanations of the static character of the approaches and methods will also be discussed in the next paragraphs.

Approach

There is a clear correspondence between the orientation of the organisations and their approach to the ozone depletion problem. An orientation towards nature is connected with an ecocentric approach, while an orientation towards the environment is connected with an anthropocentric approach. This result is not at all trivial, as in the acid rain case no such simple relationship was found (see Pleune, 1994). An explanation for the finding could be that the main attention to the ozone depletion problem in the Netherlands has always been human-oriented and not nature-oriented. As a result, the nature-oriented organisations have never been much involved in the problem. Not much (cognitive) influence has thus taken place. In this respect the – static – situation in the ozone case is similar to the situation in the acid rain case before 1984, when both VMD and DKA were, contrary to the other organisations, pronouncedly anthropocentric; this changed dramatically, however, after 1984 when the acid rain problem gained the attention of all five organisations (see Pleune, 1994).

The finding of an ecocentric approach of nature-oriented organisations for the ozone depletion problem is consistent with the position on their main approach given by Jamison et al. (1990), who assume that conservation organisations have an ecocentric approach; however, it contradicts the viewpoint of van der Heijden et al. (1992), who assume they have an anthropocentric approach.

However, as stated earlier, the results for the ozone depletion case do not have a general character, as other results have been found for the acidification case. Therefore, a more general conclusion could be that approaches are not necessarily static features of an organisation, but can be part of a specific strategy allowing for different approaches (to different problems) at the same time. It seems that the framing of the issue and its impacts defines the involvement of the organisations. It could be that co-operation between the organisations influences the approach to a particular problem. This latter hypothesis should be tested for the acidification case.

Method

The organisations that were less involved in the problem (IVN, VBN and DKA) restricted their activities to one or two (IVN) methods. The reason for IVN and VBN not being directly involved can be linked to the persistent emphasis on human skin cancer as the most important impact. This consequence does not relate to the kind of nature (animals, plants, habitats) that IVN and VBN have affinity with. For DKA, there is another gap between the framing of the problem and their vision on environmental problems: DKA does not want to concentrate on one specific problem, but intends to follow an integrated policy regarding environmental problems. For these three organisations it can be concluded that the gap between their view and the framing of the issue was be too large to be bridged. Frame bridging (see Snow et al., 1986) did not occur.

The two organisations that were most involved in the problem (SNM and VMD), adopted a broad and almost identical spectrum of methods, including the influencing of industries, government and public opinion. An explanation for this result may be the close co-operation of the organisations in the context of the platforms of societal and environmental organisations that were formed during both periods of high attention for the problem. The organisations seem to be mutually influenced by each other's methods.

It seems also that the methods are not necessarily static features of an organisation, but that the way the ozone depletion problem and its impacts were framed, determined the involvement of the organisations. This involvement in turn, and the subsequent co-operation between the organisations, seems to a large extent to define the spectrum of methods being adopted.

When the methods adopted regarding the ozone depletion problem are compared to the main methods of the organisations described in section 3, it appears that these are quite similar for IVN, VBN and DKA, while SNM and VMD both adopted several other methods in addition to the usual methods mentioned in section 3. It could be argued that the similar strategies of SNM and VMD in the ozone case are perhaps reflected better by the positions taken by van der Loo et al. (1984) or – to a less extent – van der Heijden (1992), who both look upon SNM and VMD as representatives of one main strategic stream.[9]

Linking of approaches and methods

It appears that both anthropocentric and ecocentric approaches are linked with all the different methods defined here. No one-to-one linking seems to exist between the approach and the method. Looking at organisations using the same method and a different approach shows that both VMD and SNM pursued their methods in a similar way: first, information was disseminated to all three groups about the problem and its solutions; second, pressure was put on government and industry by writing letters; third, pressure was put on the public to participate in consumer actions, followed by pressure on industry through these actions. The influencing of the public by IVN also included informing, but was not directed towards consumer actions. Regarding the offerers of alternatives, the ecocentric organisations IVN and VBN were more inclined to concentrate on nature in a strict sense (animals, plants, nature areas) than the anthropocentric DKA which coupled alternatives to the daily life of humans. Thus, it appears that organisations with different approaches use the same methods, but there can be differences in emphasis within these methods.

The finding that no one-to-one linking seems to exist is interesting when it is compared to the assertions of Jamison et al. (1990), who state that political strategies are realised through the framework of their guiding knowledge interests. As explained in section 3, political strategies can be compared with methods, while the approach can be considered a substantial part of the

knowledge interests. On the other hand, the results of the present study are similar to the conclusions of Achterberg (1994: 162), who argues that there is no univocal correlation between the fundamental attitude[10] and the policy adopted by actors in society.

It seems that for the ozone depletion problem, the adoption of both approaches and methods was related more to to the problem than to a mutual linking of approaches and methods.

5. CONCLUSIONS

An analysis of part of the strategy of environmental organisations in the Netherlands regarding the ozone depletion problem indicates that (1) each of the organisations concerned with the problem adopted several different strategies; (2) strategies of the organisations did not change much over time; (3) there is no one-to-one linking of different aspects of the strategy of the organisations: organisations with different (cognitive) approaches use the same operational strategies, although there can be differences in emphases being placed within these operational aspects.

Throughout most of the period studied, the ozone depletion issue was framed as a spray can problem causing human skin cancer. This framing probably determined the involvement of mainly human-oriented organisations. Besides environmental organisations, political parties, trade unions and consumer organisations were involved in a joint consumer actions in 1975-1976. Trade unions were no longer involved in a national platform coordinating (spray can) actions from 1987. These cooperative efforts resulted in a mutual influencing of operational methods, causing a similar set of different operational strategies for the environmental organisations involved.

The similar and human-oriented way the ozone depletion problem was framed throughout the period was probably responsible for the minor involvement of nature-oriented organisations with the problem. Because of this, (cognitive) influences of organisations with different cognitive strategies were almost absent, which could explain the static character of the strategies.

The study shows that the same operational methods were used by organisations with different cognitive approaches. When the emphases within these methods are also considered, it appears that only the two organisations most involved with the problem (and in co-operation) demonstrated similar emphases. It seems that the cooperation between the two organisations was more important in defining their operational strategy than the cognitive strategies of either of the organisations themselves.

Generally, it can be concluded that the organisations do not necessarily concentrate on one characteristic operational strategy, but that different strategies can be adopted by organisations involved with the problems. Strategy is not

necessarily a constant feature of an organisation, but can be defined by a specific problem. This also allows for different strategies (regarding different problems) at the same time. It seems that the construction of the issue and its impacts defines whether or not an organisation is going to be involved in the problem. Co-operation between organisations seems to define to a large extent the kind of strategies adopted. However, this latter hypothesis is still the subject of investigation.

NOTES

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[1] The classification 'entities' may include either only living entities (e.g. Taylor, 1986), or it may also comprise dead entities, like rivers and rocks (e.g. Stone, 1972).
[2] Dutch: 'de specifieke vormen van politieke acties die een bepaalde groep voorstaat om zijn politieke doelen te bereiken' (Cramer, 1989: 13)
[3] E.g. an orientation towards nature is not necessarily connected with an ecocentric approach: according to van der Heijden et al. (1992; and pers. comm. van der Heijden, 1993), nature-oriented conservation organisations adopt(ed) an anthropocentric approach.
[4] From the four organisations that formed SNM in 1972, one was a typical exponent of the nature-oriented organisations (CNL: Contactcommissie voor Natuur- en Landschapsbescherming, Contact Committee for the Protection of Nature and Landscape) and another a typical exponent of the environmentally-oriented organisations (NVWBL: Nederlandse Vereniging tegen Water-, Bodem-, en Luchtverontreiniging, Dutch Association Against the Pollution of Water, Soil and Air). These two precursors of SNM have been taken up into the study. They form the background for the 'ambivalent' character of SNM, being both nature-oriented and environmentally oriented. However, they did not play a role in the ozone depletion problem, because they no longer existed at the time the ozone depletion problem was taken up in society. The third precursor of SNM (the Stichting Centrum Milieuzorg: Center for Environmental Care) only existed for a few years and was mainly directed to education. The fourth organisation responsible for the funding of SNM was VBN.
[5] This difference in approach between general statements and information specific on the ozone depletion problem can perhaps be explained by the wide scope of SNM. While the staff-members active on the ozone depletion problem are part of the 'environmental' part of SNM, there is also a more nature-oriented part of SNM (see also section 3), that shows up in the material presented here in the general publications and statements.
[6] Whether there is a direct link of the two approaches with their precursors NVWBL and CNL cannot be answered, since the ozone depletion problem appeared in Dutch society (1975) after the absorption of these organisations by SNM.

[7] For an overview of developments in the scientific and political field see e.g. van Eijndhoven et al. (1993).
[8] This fighting of the capitalistic consumer society generally became less important in the 1980s, when a more pragmatic attitude was adopted by environmental organisations in the Netherlands and abroad (see e.g. Jamison et al., 1990). Part of this pragmatic attitude was generally that society no longer needs to be totally changed for the achievement of targets.
[9] Although van der Heijden (1992) classifies both SNM and VMD as part of the instrumental movement, he makes a subdivision within this movement, where SNM and VMD belong to different groups.
[10] Dutch: *grondhouding* (perspective on the place of human beings in nature).

REFERENCES

Achterberg, W. 1986 'Inleiding: milieufilosofie tussen theorie en praktijk', in *Milieufilosofie tussen theorie en praktijk*, edited by W. Achterberg and W. Zweers, Jan van Arkel, Utrecht, p. 9-18 Achterberg, W. 1994 *Samenleving, natuur en duurzaamheid: een inleiding in de milieufilosofie*, Van Gorcum, Assen, 229 pp.

Attfield, R. 1983 *The ethics of environmental concern*, Basil Blackwell, Oxford, 220 pp.

Bogaardt, P. van den 1973 'Verandering wereldklimaat', *MD*, Stichting Raad voor Milieudefensie, Amsterdam, **2**, 10, Nov/Dec, p. 5-7

Callicott, J. Baird 1986 'The search for an environmental ethic', in *Matters of life and death*, edited by T. Regan, Temple University Press, Philadelphia, p. 381-424

Cramer, J. 1989 *De groene golf : geschiedenis en toekomst van de Nederlandse milieubeweging*, Jan van Arkel, Utrecht, 144 pp.

Dickson, N., W. Clark, E. Bennett, J. Ebenhoh, D. Hart, E. Haxthausen, C. Nielsen, R. Resney, R. Scheer, J. Taylor and J. Wright 1992 *Stratospheric ozone depletion in the United States: a historical perspective of risk management*, Kennedy School of Government, Harvard University, Cambridge, MA, USA, 72 pp.

DKA (De Kleine Aarde) 1977 'Berichten: Landbouw', *De Kleine Aarde*, De Kleine Aarde, Boxtel, winter 1977

DKA (De Kleine Aarde) 1992 'S.O.S.: ozonvreters', *Gepubliceerd in Huis-aan-huis bladen in Nederland*

Dobson, A. 1990 *Green political thought: an introduction*, Routledge, London and New York, 224 pp.

Douglas, M. and A. Wildavsky 1983 *Risk and Culture: an essay on the selection of technical and environmental dangers*, University of California Press, Berkeley and Los Angeles, 221 pp.

Dryzek, J. and J. Lester 1989 'Alternative views of the environmental problematic', in *Environmental politics and policy - theories and evidence*, edited by J. Lester, Duke University Press, Durham and London, p. 314-330

Dunlap, R. and A. Mertig 1992 'The evolution of the U.S. environmental movement from 1970 to 1990: an overview', in *American Environmentalism - The U.S. environmental movement, 1970-1990*, edited by R. Dunlap and A. Mertig, Taylor & Francis, Washington, London, p. 1-10

Eijndhoven, J. van, C. Worrell and R. Pleune 1993 *The development of ozone risk management in the Netherlands - version 2*, Department of Science, Technology and Society, Utrecht, NL, 33 pp.

Eijndhoven, J. van, G. Dinkelman, J. van der Sluijs, R. Pleune and C. Worrell, 1994 *Finding your place: a history of the management of global environmental risks in the Netherlands*, Manuscript, To be published

Finger, M. 1992 'The changing green movement - a clarification', in *Research in Social Movements, Conflicts and Change , Supplement 2 - The green movement worldwide*, edited by M. Finger, Jai Press inc., Greenwich, London, p. 229-246

Fox, W. 1994 'Ecophilosophy and Science', *The Environmentalist*, **14**, 207-213

Galetzka, M. 1994 'De pers en mondiale milieuvraagstukken: zure regen in de Nederlandse pers', *Vijfde marktdag sociaal-wetenschappelijk onderzoek milieu en energie, 29 maart*, SISWO, Amsterdam, p. 11-12

Heijden, H.-A. van der 1992 'Van kleinschalig utopisme naar postgiro-activisme? De milieubeweging 1970-1990', in *Tussen verbeelding en macht - 25 jaar nieuwe sociale bewegingen in Nederland*, edited by J. Duyvendak, H.-A. van der Heijden, R. Koopman and L. Wijmans, Sua, Amsterdam, p. 77-98

Heijden, H.-A. van der , R. Koopmans and M. Giugni 1992 'The west european environmental movement', in *Research in Social Movements, Conflicts and Change*, *Supplement 2 - The green movement worldwide*, edited by M. Finger, Jai Press inc., Greenwich, London, p. 1-40

IVN (Vereniging voor Natuur- en Milieueducatie) 1990 'Van de redactie', *Mens en Natuur*, IVN, Amsterdam, **41**, 1, Spring, p. 3

Jäger, J., U. Klins and R. Ell 1992 *The issue of stratospheric ozone depletion in Germany*, Jäger International, Vagen, Germany, 22 pp.

Jamison, A., R. Eyerman, J. Cramer and J. Læssoee 1990 *The Making of the New Environmental Consciousness : A comparative study of the environmental movements in Sweden, Denmark and the Netherlands*, Edinburgh University Press, 216 pp.

Jongh, M. de 1987 'De toestand van de ozonlaag', *Mens en Natuur*, IVN, Amsterdam, **38**, 4, Autumn, p. 125-126

Klandermans, B. 1992 'The social construction of protest and multiorganizational fields', in *Frontiers in social movement theory*, edited by A. Morris and C. McClurg Mueller, Yale University Press, New Haven and London, p. 77-103

Kockelkoren, P., W. Achterberg, H. Achterhuis and G. van der Wal 1994 'Environmental policy in transformation: a philosophical approach', in *The environment: towards a sustainable future*, edited by Dutch Committee for Long-Term Environmental Policy, Kluwer Academic Publishers, Dordrecht/Boston/London, p. 253-272

Loo, H. van der, E. Snel and B. van Steenbergen 1984 *Een wenkend perspectief? Nieuwe sociale bewegingen en culturele veranderingen*, De Horstink, Amersfoort, NL, 247 pp.

Mitchell, R., A. Mertig and R. Dunlap 1992 'Twenty years of environmental mobilization: trends among national environmental organizations', in *American Environmentalism - The U.S. environmental movement, 1970-1990*, edited by R. Dunlap and A. Mertig, Taylor & Francis, Washington, London, p. 11-26

Naess, A. 1973 'The shallow and the deep, long-range ecology movement. A summary', *Inquiry*, **16**, 95-100

Nash, R. 1983 *The environmental studies program, 1983-1984*, University of California, Santa Barbara, California

Passmore, J. 1974 *Man's responsibility for nature: ecological problems and western traditions*, Charles Scribner's Sons, New York, 213 pp.

Pleune, R. 1993 *Environmental organizations in the Netherlands facing ozone depletion*, Department of Science, Technology and Society, Utrecht, NL, 38 pp.

Pleune, R. 1994 *Environmental organizations in the Netherlands and acidification*, Department of Science, Technology and Society, Utrecht, NL, 66 pp.

Politieke Partij Radicalen (PPR) 1975 *Spuitbussen bedreigen ozonlaag*, PPR, 2 pp.

Reijnders, L. 1980 'Chloorfluorkoolwaterstoffen moeten snel de wereld uit', *Natuur en milieu*, Stichting Natuur en Milieu, Utrecht, NL, **4**, 9, Sep, p 3-7

Reijnders, L. 1987 'Ozonlaag in atmosfeer ernstig aangetast', *Natuur en milieu*, Stichting Natuur en Milieu, Utrecht, NL, **11**, 2, Feb, p. 4-7

Reijnders, L. and C. Kroeze 1990 'Aanscherping ozonverdrag ter discussie', *Natuur en milieu*, Stichting Natuur en Milieu, Utrecht, NL, **14**, 5, May, p. 14-17

Rodman, J. 1983 'Four forms of ecological consciousness reconsidered', in *Ethics and the environment*, edited by D. Scherer and T. Attig, Englewood Cliffs, New Jersey, p. 82-92

Rucht, D. 1989 'Environmental movement organizations in West Germany and France: Structure and interorganizational relation', in *Organizing for change*, edited by B. Klandermans, JAI Press, Greenwich, CT

SNM (Stichting Natuur en Milieu) 1983 *Natuur en Milieu 1981-1982; Verslag van de werkzaamheden van de Stichting Natuur en Milieu over de jaren 1981 - 1982*, Stichting Natuur en Milieu, Utrecht, NL, 24 pp.

SNM (Stichting Natuur en Milieu) 1987 *Natuur en Milieu 1986; Verslag van de werkzaamheden van de Stichting Natuur en Milieu over het jaar 1986*, Stichting Natuur en Milieu, Utrecht, NL, 20 pp.

SNM (Stichting Natuur en Milieu) 1988 'Twee convenanten', *Natuur en milieu*, Stichting Natuur en Milieu, Utrecht, NL, **12**, 1, Jan, p. 2

SNM (Stichting Natuur en Milieu) 1989 *Natuur en Milieu 1988; Verslag van de werkzaamheden van de Stichting Natuur en Milieu over het jaar 1988*, Stichting Natuur en Milieu, Utrecht, NL, 24 pp.

SNM (Stichting Natuur en Milieu) 1990 *Jaarverslag 1989; Verslag van de werkzaamheden van de Stichting Natuur en Milieu over het jaar 1989*, Stichting Natuur en Milieu, Utrecht, NL, 28 pp.

SNM (Stichting Natuur en Milieu) 1991 *Jaarverslag 1990; Verslag van de werkzaamheden van de Stichting Natuur en Milieu over het jaar 1990*, Stichting Natuur en Milieu, Utrecht, NL, 30 pp.

Snow, D., E. J. Burke Rochford, S. Worden and R. Benford 1986 'Frame alignment processes, micromobilization, and movement participation', *American Sociological Review*, **51**, Aug., 464-481

Stone, C. 1972 'Should trees have standing? Toward legal rights for natural objects', *Southern California Law Review*, **45**, 450-501

Stortenbeker, C. 1990 'Op weg naar het Paaseiland? De mens en zijn natuurlijk milieu', in *Het milieu: denkbeelden voor de 21ste eeuw*, edited by Commissie Lange Termijn Milieubeleid, Kerckebosch BV, Zeist, NL, p. 309-333

Taylor, P. 1981 'The ethics of respect for nature', *Environmental Ethics*, **3**, 3, 197-218

Taylor, P. 1986 'Respect for Nature: a Theory of Environmental Ethics', Princeton University Press, Princeton, New Jersey, 330 pp.

VBN (Vereniging tot Behoud van Natuurmonumenten) 1989 'Koelkasten', *Natuurbehoud*, Vereniging tot Behoud van Natuurmonumenten, Amsterdam, NL, **20**, 3, p. 82

VMD (Vereniging Milieudefensie) 1983 Untitled, *Milieudefensie*, Vereniging Milieudefensie, Amsterdam, **12**, 9, p. 7

VMD (Vereniging Milieudefensie) 1987 *Het gat in de ozonlaag - broeikaseffect - zure regen : wat hangt ons boven het hoofd?*, 6 pp.

VMD (Vereniging Milieudefensie) 1988 'Jaarverslag 1987 Vereniging Milieudefensie', *MD*, **17**, 1, Jan., p. 24-26

VMD/DKA (Vereniging Milieudefensie and De Kleine Aarde) 1975 'Spuitbussen', *md*, **4**, p. 42

Vonkeman, G. 1977 'Alarm voor de spuitbus - Verbod mag niet langer worden uitgesteld', *Natuur en milieu*, Stichting Natuur en Milieu, 's-Graveland, NL, **1**, 10, Oct., p. 3-12

Wams, T. 1987a 'Onwil Europa bedreigt ozonlaag', *Milieudefensie*, Vereniging Milieudefensie, Amsterdam, **16**, 3, Apr., p. 1,4-6

Wams, T. 1987b 'Themadag freons', *Milieudefensie*, Vereniging Milieudefensie, Amsterdam, **16**, 4, May, p. 15

Wams, T. and M. Buitenkamp 1987 'Actie tegen spuitbussen', *Milieudefensie*, Vereniging Milieudefensie, Amsterdam, **16**, 10, Dec., p. 28-30

Zweers, W. 1984 'Natuur en cultuur in ecologisch perspectief', in *Milieucrisis en filosofie - westers bewustzijn en vervreemde natuur*, edited by W. Achterberg and W. Zweers, Ekologische Uitgeverij, Amsterdam, p. 97-141

Zweers, W. 1992 'Radicalisme of historisch besef? - over breuken en continuiteit in de grondhoudingendiscussie', in *Op zoek naar een ecologische cultuur - Milieufilosofie in de jaren negentig*, edited by W. Zweers, Ambo, Baarn, NL, p. 63-69