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Corporate Environmental Strategy and Responsiveness to External Stakeholders

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Corporate Environmental Management and Responsiveness to External Stakeholders

Dr. Geerten J.I. Schrama

Abstract

In this paper corporate environmental management is perceived in terms of reaction on or anticipation of incentives emitted by external stakeholders. Corporate responsiveness is the extent to which a company is willing to reconcile the requirements made by external stakeholders with its own purposes and to integrate them in their environmental strategy. Some building stones for a theoretical framework for analysing the relationships between companies and external stakeholders are brought up. The dependent variable is corporate responsiveness, and four parameters are discussed:

- the specific aspects of corporate environmental management that affects the interests of particular stakeholders: environmental impacts, internal environmental management, and various side-effects:
- the nature of the incentives to the company enacted by the external stakeholders, in particular the type of motivational driving force to which they are appealing: economic rationality, legal compliance, or social responsibility;
- the extent of the company's environmental consciousness corresponding to the type of driving force addressed by the external stakeholders;
- the mutual dependencies in the relationship between the company and its external stakeholders.

Keywords: environmental management, sustainable development, stakeholders, environmental strategy.

1. Introduction

Almost all authors on corporate environmental management and strategy recognise the need for sustainable development, usually by endorsing the analysis of the Brundtland report "Our Common Future" (WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT 1987). Most of these authors, not only the academics among them, but also those with an industrial background, acknowledge the indispensable contribution of industry to this purpose.

With respect to the nature of the required changes, the visions are not homogeneous. Focusing on the main dimension, they diverge from the "eco-efficiency" to the "system change imperative" (SCHOT, BRAND & FISCHER 1997). Eco-efficiency means that industry should adapt to changing ecological circumstances and societal responses to it. Successful adaptations will be rewarded with relative cost savings, competitive advantages for seizing market opportunities, and smooth relationships with government and environmental agencies. These changes may be rather profound, but the basic mechanisms and rationalities of doing business remain unaffected. An exponent of the eco-efficiency view is SCHMIDHEINY (1992), the spokesman of the (World) Business Council for Sustainable Development who coined the term "eco-efficiency". Another prominent author, SHRIVASTAVA (1994; 1995; 1996) has an open eye for the "win-win-situations" stemming from an eco-efficiency view too, while stressing the ongoing institutional transformation towards a post-industrial or risk society.

According to the system chance imperative, the pursuit of eco-efficiency is an obstruction to real sustainable development. As long as the economy is dominated by corporations who's main objective is making (short term) profits or returns on investments, sustainable development will remain an illusion. In stead, the economy must be integrated into larger systems which are guided by the rationalities of ecology, equity, and futurity. An exponent of this view is Gladwin (e.g. GLADWIN ET AL 1995).

The opposite views are often presented in terms of contrasting paradigms. The eco-efficiency view is associated with the maintenance of the established managerial paradigm, while the system change view involves a paradigm shift from "antropocentrism" to "ecocentrism" (e.g. PURSER ET AL 1995). KIVISAARI & LOVIO (1996) distinguish two dimensions in the paradigm debate: different visions of the human-nature-relationship and a societal dimension.

The present paper concentrates on the small steps which are feasible in the short run. In this sense it comes close to the eco-efficiency view, but without the implication that more radical system changes can be avoided in the long run. The basic theme of this paper is a view on corporate environmental management - activities aimed at environmentally related purposes - as reaction on or anticipation of incentives from external stakeholders, third parties who's interests are affected by environmentally related behaviour of companies.

This paper concerns a theoretical framework with several examples taken from practise. However, this is work in progress and much remains to be done.

2. Corporate environmental management

2.1 Working definitions

The central subject of this paper is corporate environmental management. Although there is some general understanding of the meaning of this term, much conceptual confusion is left. First, this paper abstains from the discussion whether a company acts as a consistent organisational actor, and whether it should be studied as such (perhaps not!). With this restriction mentioned, the most generic term is corporate behaviour. When analysing environmentally related behaviour, the first distinction is whether the company is aware of the relevance for environmental issues, or not. It is assumed that companies are exercising some kind of control over behaviour that is perceived as environmentally related, and this control is called corporate environmental management. Another distinction is between external and internal oriented environmental management, which is addressed below. To the extent that corporate environmental management is based on a consistent vision and involves a consistent set of measures, the term corporate environmental policy applies, which is used here as an "ex-ante" concept. The concept of corporate environmental strategy is used here as an "ex post" concept - "a pattern in a stream of decisions and/or actions" - in the sense it is used by Mintzberg (MINTZBERG 1987; MINTZBERG & WATERS 1990).

So, the following working definitions are used in this paper. They allow conceptual distinctions, but the actual application of these terms and concepts in the following text is still somewhat arbitrary.

- *Environmentally related behaviour* encompasses all corporate activity (or refraining from it) that has direct or indirect effects on sustainable development, irrespective of the fact whether the company is aware of these effects or not.
- *Corporate environmental management* is the exercising of control over environmentally related behaviour, which implies recognition of it as such.
- *Corporate environmental policy* is used as an ex ante concept for the whole package of measures taken by a company in the context of its environmental management.
- *Corporate environmental strategy* is used as an ex post concept for the more or less constant patterns within the company's environmentally related behaviour.

2.2 Aspects of corporate environmental management

Corporate environmental management is studied here from an external stakeholder perspective. The following classification of aspects of environmental management with three main categories is used: (1) direct environmental impacts; (2) internal environmental care; (3) side-effects on other management objectives.

Many classifications of corporate environmental management are presented in the literature. Some are sub-classifications of the categories mentioned here (as will be demonstrated below), while others are conceptualised from a different angle, such as a classification according to managerial functions, like manufacturing, marketing, R&D, and purchase (cf. Bansal 1993, cited in BHARGAVA & WELFORD 1996).

2.2.1 Environmental impacts

From an external stakeholder perspective corporate environmental management involves activities which are either directly aimed at control or reduction of environmental impacts, or activities that contribute to it in an indirect way. The former still includes a large variety of activities, which are subject of further classification. Current sub-classifications are based on the distinction between processes and products, or on input - throughput - output - models.

In the processes-products distinction (e.g. Beaumont et al 1993, cited in BHARGAVA & WELFORD 1996) the process side is focused on production technology: the emissions and energy use by the company itself. The product side is focused on the product design: the use of scarce natural resources, the environmental burden of the product in its use stage, and the possibilities of sustainable removal of the product in the disposal stage.

An input-throughput-output model (e.g. WILLIAMS, MEDHURST & DREW 1993) gives rise to another sub-classification. Input concerns raw materials, intermediate products, water, energy, and means of production; throughput concerns the eco-efficiency of the production processes; and output concerns the products in their use and disposal stages, as well as the emissions and the waste generated by the company.

2.2.2 Internal environmental management

Apart from the aspects directly aimed at the control of environmental impacts (external points of reference), corporate environmental management also involves aspects with internal points of reference, which are meant to facilitate the direct activities. Internal environmental management (in Dutch it is “environmental care”) is a generic term for organisational, administrative, technical, and informational measures taken in support of activities directly aimed at control or reduction of environmental impacts, including compliance with legal regulations (e.g. BRESSERS ET AL 1995). Environmental management systems are regular tools for effective and efficient environmental care, which minimise the probability of incidents and sheer fiasco’s (e.g. NETHERWOOD 1996). The Dutch Ministry of the Environment has introduced a scheme with the basic requirements of such a system, from an environmental policy statement to internal and external reporting and auditing (TWEEDE KAMER 1989). The popular environmental certificates, such as EMAS, ISO 14001, and BS 7750, are quality certificates of these environmental management systems (e.g. STARKEY 1996)

2.2.3 Side-effects

Finally, corporate environmental management involves some special aspects, which cannot be classified unequivocally as direct or indirect control of environmental impacts, because they contribute obviously to other various purposes. This heterogeneous class of corporate environmental management aspects, of which an incomplete listing is presented below, is indicated here as “side-effects”.

- The **financial costs and benefits** of measures of environmental protection - the issue of the balance sheet - are obvious points of reference. A common experience is that short term expenditures are always clear, while benefits are hard to quantify, uncertain, and only to be effected in the long run. The indirect costs of not taking particular measures are also uncertain and hard to quantify. As a result, measures yielding short term financial gains, such as waste minimisation and energy conservation, are often granted with priority in environmental action plans (e.g. BORPHY 1996).

- **Legal compliance** is another obvious point of reference for many environmentally related measures. Companies have to comply with many laws and regulations concerning their environmentally related behaviour, requirements in their environmental permits, and legally prescribed product characteristics. Legal requirements are often directed at reduction of environmental burdens, either through prescriptions of means, or prescriptions of ends. In the Netherlands, government has considered to impose the obligation to install environmental management systems to certain categories of companies (TWEEDE KAMER 1989). When companies take protective measures, it is not always possible to tell which is the primary aim and which is the side-effect: reduction of environmental burdens or legal compliance.
- **Market opportunities or competitive advantages**: sustainability as unique selling point for products and services. The literature contains many famous examples of companies prospering through their pro-active and well publicised environmental strategies, such as The Body Shop, 3M Company, Volvo Car Corporation, and Ben & Jerry's Homemade Ice Creams (e.g. SCHMIDHEINY 1992; SHRIVASTAVA 1996). There are several ways to appeal to environmentally conscious customers and consumers: (a) the product or service is a tool in support of sustainable behaviour, such as energy efficient machines and instruments; (b) the product (or service) can be called 'green' because of the low environmental burden in the production and disposal stage, such as chlorine free paper; (c) the producer's contribution to sustainable product chain management, from cradle to grave. An automobile, for instance, can fit all of these descriptions, for reason of its low fuel consumption, the raw materials used, its design for deconstruction, and the ISO 14001 requirements to which the manufacturer complies.
- The company's **public environmental image** is another point of reference for environmentally related measures. A positive public image may serve as a unique selling point, while a negative public image may repel (potential) customers. A good environmental image can result from sound environmental management. However, it may also be influenced by advertising of ones environmental performance, and even by window dressing, when a company is pushing an environmental image that is not justified by its actual performance. On the other hand, a company may spend much effort in preventing or mending a negative public image, for instance Shell after the Brent Spar affair or Exxon after the Exxon Valdez disaster. Legal compliance and publicity about it are major constituents of a company's environmental image, as compliance and non-compliance are easy to communicate to the public.

Other aspects are often derived from the ones mentioned here. Environmental problems and a negative environmental image are complications or barriers for contacts with the world outside (government, residents, environmental movement), because it generates distrust. Other parties must be convinced of the company's sincerity over and over again. A chemical company in the Netherlands has suffered for many years from the aftermath of a number of environmental incidents and the resulting negative image, even with respect to its position on the labour market (SCHRAMA 1997A).

3. Driving forces of corporate environmental management

3.1 Three basic driving forces

The theoretical framework outlined in this paper is based on the “bounded rational actor model” for understanding the behaviour of social actors - companies in this case - including the perceived requirements for self maintenance within a given societal context. The word “understanding” is used here in the sense of “verstehen” as introduced by Max Weber. For this purpose three basic types of driving forces or motivations are distinguished, corresponding with general classifications of social steering mechanisms, notably the theory of policy instruments (BRESSERS & KLOK 1988; KLOK 1991): (1) economic rationality; (2) legal compliance; (3) social responsibility.

Of these three types of driving forces, economic rationality is easy to understand. It is generally accepted to explain corporate behaviour in terms of the economic rationality of profit maximisation or returns on investments. One can make a distinction between the short term pursuit of profits and the long term goal of maintenance, which involves different attitudes towards investing in sustainable development.

Different views are possible with respect to the issue whether social responsibility and legal compliance are autonomous driving forces for corporate behaviour, or that these motivations are derived from economic rationality, as such behaviour is based on well understood self interest. According to a strict rational actor model, the motive of legal compliance should be explained principally in terms of avoiding sanctions for non-compliance and the liability to harm caused by the disturbance of possible legal prosecution, plus the accompanying negative publicity and the damage to the public image. So, the integration of legal compliance as an aim that fits in with the corporate environmental strategy - common practice at least in the western world - can be ascribed to these considerations to some extent. However, there is no evidence that legal compliance in itself - the ethics of respecting the law - is no regular driving force in many companies. A statement by an manager, quoted by SCHOT (1995:33), can be used to illustrate the point: *“Just because we are keeping regulations, it does not mean that we agree with it or like it.”*

The same can be said of social responsibility. Many companies claim that this is an important driving force for their environmental policy. According to a strict rational actor model, all environmentally related behaviour must be reduced to the material or economic consequences for the firm, including the need for a stable relationship with the social environment in order to survive as a company and to flourish. This would imply the denial of any ethical base for corporate environmental management, which would do no justice to the sincere dedication of many companies and in particular of many individual employees and managers, who are truly dedicated to some way of sustainable development. On the other hand, one should have no illusions about the priorities when business and environmental considerations are not compatible.

Reporting from a study among 592 German firms, STEGER (1993:156) gives the following ranking of "... reasons or motives (...) for the importance attached to environmental protection...":

1. ecological/social responsibility;
2. legislation/government regulation;
3. safeguarding of corporate viability/risk aspects;
4. image/public relations;
5. employee protection;
6. market pressure/market potentials/sales possibilities;
7. protection of the environment/quality of life;
8. value-adding potentials/revenue.

The items used by Steger can be conceived as specifications of the three basic driving forces. Steger is a bit sceptical with respect to the ranking of ecological and social responsibility as first, and mentions social desirable answers.

3.2 Corporate culture

A comprehensive discussion of the concept of corporate culture and the relation with corporate environmental management is beyond the scope of this paper. Here corporate culture is conceived in terms of environmental awareness. This involves aspects such as sensitivity to requirements made by external stakeholders, shared perceptions and values, and openness of decisionmaking procedures for environmental considerations. CRANE (1995) describes "green cultures" in terms of managerial rethorics versus truly shared perceptions and values, and argues that the latter is hard to enact.

It is suggested here, that environmental awareness is not simply a unidimensional concept of high versus low, but that at least three dimensions should be distinguished, according to the three types of driving forces. With respect to economic rationality, low environmental awareness means that a company is inclined to perceive environmental issues as short term costs in stead of potential gains, while high environmental awareness means that it is sensitive to market opportunities and possible competitive advantages and is able to grasp them. With respect to legal compliance the opposites can be characterised in terms of sensitivity to what environmental agencies require from them, what to do to keep good relationships with them, how to use the leeway for negotiating, and - perhaps most relevant - good anticipating on future legal requirements. Social responsibility and environmental awareness is a somewhat more complicated issue, although some indicators can be mentioned here. Low environmental awareness means, for instance, that a company is not able to assess the legitimacy of claims from external stakeholders in the eyes of the general public, and is inclined to downplay requirements by environmental organisations at the risk of considerable backlash, while high environmental awareness means that it is able to create a positive and credible public image, to be innovative and to benefit from it in economic respect. This issue is summarised in the table below:

ENVIRONMENTAL AWARENESS	low level	high level
economic rationality	costs of measures	market opportunities and competitive advantages
legal compliance	low sensibility to requirements and available leeway	high sensitivity to requirements and available leeway, and anticipation to future demands
social responsibility	bad assessment of legitimacy of claims, downplaying requirements, and liable to backlash	sensitive, good public image, innovative, and able to benefit from it

Table 1: Levels of environmental awareness and the three types of driving forces

3.3 Corporate responsiveness, environmental awareness and driving forces

Corporate responsiveness is the extent to which a company is willing to reconcile the requirements made by external stakeholders with its own purposes and to integrate them in their environmental strategy. At this point is can be assumed that corporate responsiveness to external stakeholders is dependent on two parameters: (1) the level of environmental awareness, and (2) the type of driving force to which incentives emitted by stakeholders are appealing. With respect to the former it is assumed that there is a positive correlation between the level of environmental awareness and corporate responsiveness. With respect to the latter, it is assumed that firms are likely to develop a high level of environmental awareness with respect to economic rationality, which is the primary driving force to nearly all companies. Next comes legal compliance, and finally social responsibility (c.f. ARENTSEN, KLOK & SCHRAMA 1994).

This may be the regular, but it is not the necessary development path. One of the companies studied by ARENTSEN, KLOK & SCHRAMA (1994) demonstrated a remarkable combination of relatively high levels of environmental awareness with respect to economic rationality and social responsibility and a rather low level of environmental awareness with respect to legal compliance. The company had a confrontation with the local environmental agency over non-compliance with a number of rather insignificant requirements in its environmental permit, and was treated with legal prosecution. The managers didn’t understand why they were pictured as black sheep, while they lived up to high self-imposed standards with respect to clean technologies and environmentally related market demands.

4. External stakeholders

In this paper corporate environmental management is perceived in terms of reactions on or anticipation of incentives from external stakeholders. The number of external stakeholders to any company is large and diverse. In principle, a single individual can act as external stakeholder, however, it often concerns formal organisations, organised groupings, or associations. An external stakeholder is a third party, or its representative, who's interests are affected by specific aspects of the focal company's environmentally related behaviour, and who is able to transmit an incentive to this company to protect this particular interest. Any party can be an external stakeholder to a company regardless of the means and resources available to increase the weight or the convincing power of this incentive. In contrary to other definitions (e.g. VAN RIEMSDIJK 1994) an external stakeholder doesn't need to be interested in the continuity of the company, which is the case for a labour union, but not for an environmental organisation.

Usually each external stakeholder has only interests in a limited number of corporate environmental management aspects as discussed in the previous section. In this section the most important types of external stakeholders are reviewed.

4.1 Government and environmental agencies

Government is not a single coherent organisational actor. It has many faces, and it consists of many departments, institutions and agencies. Government is a collective noun for a group of external stakeholders with slightly different interests at stake. One perspective on government as stakeholder concerns its general responsibility for environmental protection and sustainable development. In principle, each body of government is charged with this responsibility for its own (territorial) jurisdiction. Nevertheless, the formulation of general environmental policies is mainly the competence of national governments and the European Union. Within public environmental policies, an important place is taken by industry, as a major cause of environmental problems and as an indispensable link in effective solutions. From this perspective, government is concerned with direct environmental impacts as aspects of corporate environmental management. The present European and national environmental policies stress the need for industry to "internalise" the policy goals and to contribute to the solution of environmental problems. For the European Union this is formulated in the Fifth Environmental Action Plan "Towards Sustainability", notably chapter 4 on selected target groups and section 4.1 on industry (EUROPEAN COMMISSION 1993a).

Individual companies come across government through the implementation of legal regulation. As legislator, government has enacted a range of environmental laws in which many demands are placed on companies. This involves: (1) direct regulation of all kinds of environmentally related behaviour, such as the disposal of hazardous waste; (2) certain activities are subject to environmental permits and these permits contain additional legal requirements; (3) many products are subject to legal regulation concerning its properties (automobiles are a notable example).

Implementation, monitoring, control and enforcement are governmental tasks performed by appointed legal authorities, such as lower levels of government or environmental agencies. Interaction between companies and legal authorities are concentrated on legal compliance as aspects of corporate environmental management, rather than on direct environmental impacts. Over the years a shift has occurred from prescription of means to prescription of goals; emission levels are mentioned in the permits, rather than detailed descriptions of the technical means to achieve them.

For dealing with the subject of public environmental policy with industry as target group, policy sciences have supplied us with some conceptual framework. First, there is the concept of **policy style**, which is an overall characterisation of the policy formulation and the way the target group is approached. Pure types do not occur in practise, but in a conceptual sense two dimensions are predominant: the consensus base and the extent of self-regulation. A consensual policy style (c.f. RICHARDSON 1982) means that the policy formulation is based on consensus with the target groups. The opposite is an impositional or hierarchical policy style, often referred to as "command and control". The other dimension refers to the steering models applied (e.g. VAN DER DOELEN 1989; PRÖPPER & HERWEIJER 1992; GLASBERGEN 1994). Regulation (a regulatory policy style) refers to the traditional **juridical steering model** based on legal regulation. The opposite of regulation is self-regulation - which is very much en vogue today. It does not mean that government remains passive and refrains from steering. It is based on the idea that the target group should show the desired behaviour without enforcement through legal regulation. Self-regulation can be based on two steering models: economic or communicative. The **economic steering model** is based on economic or market based policy instruments, which involve economic incentives. Target group members should base their desicions on their own calculations and there is no sanction on undesired behaviour. In its pure form the **communicative steering model** refers to social coordination or steering mechanisms, which do not require governmental interference, but can be activated or stimulated by so-called communicative policy instruments. On the other hand, communicative steering is often used to support other ways of steering, as steering requires communication with the target group.

A similar approach is used by ARENTSEN & KÜNNEKE (1996) in their study of the liberalisation of the electricity markets. The three allocation systems distinguished by them correspond with the three steering models mentioned in this section.

4.2 Customers, suppliers and other partners in the product chains

Sustainability of industry is not just a matter of individual firms. It is of little use to optimise sustainability within the firm without reference to the product chains: "from cradle to grave". Powerful actors in the chain, who strive for good environmental records, often pose demands on their partners within product chains, first of all to their suppliers. The best known example is perhaps the automotive industry, where much effort is being spend on making their own products as "green" as possible. Due to their huge market power, automobile manufacturers are more or less able to impose trading conditions on their suppliers. This does not only concern the mechanical parts, but for instance also the plastics used in automobiles. Plastics producers are not only urged to make sure that their products won't cause any problems in the disposal stage, but also to demonstrate that their own production processes are environmentally sound. The formal status of supplier to an automobile manufacturer is often conditional on the possession of official quality or environmental certificates. Plastics producers on their turn impose similar demands on their own suppliers (e.g. SCHRAMA 1997A; 1997B).

Most of the times, the customer is in a position to impose demands on the supplier, but sometimes it is the other way around. Automobile manufacturers impose demands on their retailers with respect to environmental management in their workshops, just as franchise chains, such as McDonalds', do to their contractors. This is to prevent careless dealers and restaurant managers from harming the precious corporate environmental images.

4.3 Consumers and end users

As external stakeholders, consumers and end users are part of the product chain, but they have no direct contacts with the focal company. Environmental properties, in the positive as well as the negative sense, are relevant selling points for products. Consumers and end users may be guided by sustainability features of the products, or by the health hazards involved in their use. For consumers the retail price is also an argument. Dutch (!) experience shows that consumers are not really willing to pay more for green products compared to conventional (less sustainable) alternatives. Green consumerism is no big deal, but health hazards are a different story, especially where it concerns food stuff. Meanwhile, budgetary neutral environmental improvements, such as packaging of grocery's or changes in detergents, have been readily accepted by consumers in the past few years. However the market for ecological products is still predominantly a niche market.

4.4 Financial institutions

Financial institutions, such as banks, insurance companies, and institutional investors, are very powerful economic actors. It is assumed that they will act as external stakeholders to corporate environmental management where their own interests are involved. In the past few years, practitioners and academics have attempted to make inventories of what is going on in the field of finance (e.g. THE ECONOMIST INTELLIGENCE UNIT 1993; SCHRAMA & VERSTEGEN 1995; SCHRAMA & SCHELLEMAN 1996; WHITE 1996; SCHMIDHEINY & ZORRAQUÍN 1996).

There are many indications that **banks** are getting more aware of the interests that are at stake, and are developing corporate environmental policies to deal with it. The international state of the art is presented in reports by THE ECONOMIST INTELLIGENCE UNIT (1993) and the United Nations Environment Programme (VAUGHAN 1995). The UNEP (1995) has commissioned a "global survey on environmental policies and practices of the financial services industry", among 90 banks from all over the world. Some remarkable findings of this survey are: (1) that seventy percent of the respondents believe that environmental issues have a material impact on their business; (2) that over 80% of the banks perform some degree of environmental risk management on the debt side of their business, while environmental issues appear to play little role when it comes to equity financing; (3) that lender liability is the greatest issue currently facing banks; and (4) that all respondents believe environmental issues will receive more attention and become increasingly integrated with their core business activities over the next fifteen years.

Although a defensive approach based on risk management prevails, some banks decide to make public statements and to commit themselves to more pro-active environmental policies. At the Rio conference in 1992 the UNEP has published "A Statement by Banks on the Environment and Sustainable Development". According to this statement banks recognise a collective responsibility for sustainable development and they accept the consequences for their own internal and external environmental policies. The UNEP-statement is endorsed by 66 banks from all continents (but none from the United States, and only one ethical bank from the Netherlands).

The Netherlands are the home of three large international operating banks: ABN-Amro, ING, and Rabo. The Dutch situation has been studied by SCHRAMA & SCHELLEMAN (1996), including a series of interviews with key informants. They distinguished three relevant fields: (1) environmental risk management, (2) environmental related market opportunities, and (3) environmental aspects of the mission and public image of banks.

With respect to risk management, Dutch banks clearly have developed a certain level of environmental awareness. There are no big financial risks at stake, as lender liability doesn't apply to the Dutch situation. Before granting loans, most banks only check upon clean soil certificates, environmental permits, and to the most obvious environmental risks. No formal requirements are imposed on corporate clients with respect to prevention of new environmental damage. More attention is paid to the quality of environmental management, as part of an overall management assessment. The approach chosen by the banks is pragmatically, aimed at the service of their own interests and to a certain extent those of their clients. Attention to aspects of environmental management is confined to the stage of decision making about applications for loans and investments. It is not a regular item in the ongoing client contacts. Moreover, attention to environmental aspects is predominantly related to industrial enterprises and more in particular to traditional issues such as soil, water, and air pollution.

All banks are involved in environmental related market opportunities, with a large differentiation of activities. Three types can be distinguished. The first type concerns additional financial services provided by banks to regular corporate clients. Financing environmental investments means no additional business for banks. Around 1990 the large banks have explored the area of supporting corporate environmental management, but they consider this not as part of their business anymore. The second type concerns the financing of environmental sectors. The large banks are involved in the development and production of environmental technologies. They consider this as regular business which has nothing to do with environmental policy. The smaller banks and one of the ethical banks have specialised in certain sectors that can be characterised as application of environmental technology. The third type is constituted by the green investment funds. Thanks to the 1995 fiscal measure, this is a booming business in the Netherlands. These funds are important financial sources for ecological projects, but no indications have been found that they have any effect on environmental management practices in companies.

As banks are spending large sums to create favourable public images and goodwill of potential customers and employees, the question is raised whether involvement in environmental affairs and the resulting positive or negative publicity may constitute an important aspect of the environmental policies of Dutch banks. No indications have been found that - at this moment - much significance is attached by banks to this issue, nor that banks are liable to client backlash with respect to environmental affairs.

Insurance companies are external stakeholders to corporate environmental management because they offer insurance coverage for environmental liabilities and other kinds of damage related to environmental issues (c.f. SCHRAMA & VERSTEGEN 1995). Two main types are first party and third party liability. From a stakeholders perspective third party environmental liabilities are the most relevant; damage to others for which the policy holder is liable according to civil law. Environmental damage may be damage *to* the environment (ecological damage), or damage *through* the environment, which is material damage (to persons, goods or property, and loss of income or profit) or immaterial damage (HAFKAMP ET AL 1994). Insurance coverage for third party liability is not available for all environmental damage. General restrictions concern negligence and offence of legal regulations. Moreover, the event that has lead to the damage must have taken place after the insurance policy had taken force, even if the damage has manifested or the claim is made afterwards. Most Western European countries have a special insurance policy for third party environmental liabilities, which is aimed at SME's. These policies are restricted to gradual environmental deterioration, and cover only economic damage (material damage to companies). The most important application is soil contamination (BOS 1994). Actually, the most important types of environmental insurance are the general corporate liability policies and the fire policies, which cover environmental damage caused by specific events. Liabilities for employees, such as exposure to asbestos or organic solvents, are also covered by general corporate liability policies, but these are not considered to be environmental liabilities, nor are the various types of product liability.

In the United States Superfund has caused much commotion, as many companies have been held liable for clean-up costs of soil contamination, in particular caused by waste disposal in landfills. These liabilities concerned not only landowners, but also companies who have shipped their waste to these landfills, and also the financiers of these companies (e.g. THE ECONOMIST INTELLIGENCE UNIT 1993;).

In Europe the European Union has the intention of strict application of the polluter pays principle to environmental damage, either through application of civil law, or through special funds for which the potential perpetrators should supply the means (EUROPEAN COMMISSION 1993b). Until now, fear of Superfund situations expressed by large corporations and financial institutions has hold up the final policy formulation. Nevertheless with respect to environmental damage, an overall trend in national legislation has been observed towards risk liability. This means that the burden of proof is shifted from the injured party to the defendant (c.f. HAFKAMP ET AL 1994).

First party liability concerns damage to the policy holder himself. With respect to first party liabilities insurance companies are only external stakeholders to corporate environmental management to the extent that their environmentally related behaviour makes a difference. The big issue with respect to first party liability are the effects of climate change, in particular the soaring claims for damage caused by natural disasters. Although the connection with environmental issues is obvious, this concerns no environmental insurance in the strict sense, nor does it make insurance companies external stakeholders to individual firms. The insurance industry has manifested itself after the 1995 UN Climate Conference in Berlin with a plea for more effective measures against the greenhouse effect, while later that year the UNEP Statement of Environmental Commitment was signed initially by 22 insurance companies from all over the world. However, first party insurance coverage for environmental damage in the strict sense is not generally available. In the Netherlands the possibility of limited coverage of first party liability for soil contamination is under preparation (c.f. WELWEZEN 1995).

Insurance companies as external stakeholders are faced with relatively large uncertainties with respect to environmental liabilities. All regular means for uncertainty reduction are applied: limited coverage, insurance pools (risk sharing) and reinsurance (wholesale insurance). Nevertheless, insurance companies have obvious interests in proper internal environmental care by their corporate clients in order to minimise the changes of environmental damage. Compared to banks, insurance companies are more inclined to impose preconditions with respect to environmental management to their corporate clients. The Dutch environmental liability policy, aimed at SME's, includes the possibility of imposing annual environmental audits, while environmental management systems are considered by the branch. With respect to large companies there is no hard information available, but informal communications indicate that impose very rigorous preconditions, including extensive annual audits, notably in high risk branches as the chemical industry and oil refineries.

4.5 Owners and shareholders

The involvement of owners and shareholders in companies is usually based on economic rationality. As external stakeholders to corporate environmental management it is assumed that they are primarily interested in the economic and financial consequences. This doesn't necessarily imply a short term perspective. Sound environmental performance is more and more recognised as indicator of economic performance (c.f. Johnson, cited in WHITE 1996). Notably in the case of long term investments, which is the business of pension funds, there is a trend of using environmental indicators for long term economic performance (Keijzer in SPRENGERS 1996).

Of course, owners and shareholders may also be guided by the driving forces of legal compliance and social responsibility. This goes for natural persons, who choose not to be ignorant about the destination of their savings, and for the so-called ethical or green investment funds, which control large capitals (see e.g. for the UK RYALL & RILEY 1996). Other large institutional investors, such as pension funds, who are certainly no charities, often endorse ethical and sustainable principles (e.g. Simpson as well as Keijzer in SPRENGERS 1996). Big companies, such as the Royal Dutch Shell, are confronted with shareholder activism, often on the occasion of environmental issues, since many years. For such activities the trend is away from ad hoc actions towards a more institutionalised approach. Apart from activities by green investment funds, this trend is supported in the UK by organisations such as the Pension Investment Research Consultants (PIRC) and in the Netherlands by the recently established Association of Investors for Sustainable Development (VBDO) (SPRENGERS 1996).

CERES - the Coalition for Environmentally Responsible Economies - is an initiative developed by ethical investment funds and environmental groupings in the wake of the Exxon Valdez disaster in 1989. They have developed the “Ceres Principles” a code of good practice, which is said to be the most progressive and demanding of its kind. In 1996, 81 companies, mainly from the US, had become signatories. Among them are several from the Fortune 500 list, including General Motors (BORPHY 1996). Ten cases are reported of companies who have been proposed by shareholder resolutions to endorse these principles, with on the average 10% of the shareholder votes in favour of these proposals (Simpson in SPRENGERS 1996).

4.6 Peer companies and trade associations

Peer companies and trade associations are no obvious external stakeholders, but nevertheless they often act as such through branch activities in support of environmental management within companies. This can be explained from reasons of efficiency, when cooperation at the branch level may prevent individual companies from inventing the wheel over and over again, while there is also a silent code of banning competition on environmental issues. In the Netherlands, trade associations are important intermediaries for the proliferation of environmental management systems, especially among SME’s. Government is constructing networks around them for this purpose (cf. DE BRUIJN & LULOFS 1996; RADERSMA & SCHRAMA 1996). Another consideration is that a single “black sheep” may harm the public image of the whole branch. Notably the chemical and oil refinery industries have been under public scrutiny quite often and have spend much money for improvement of their environmental images (apart from investments in tangible environmental improvements). In the UK, the Chemical Industries Association has developed the Responsible Care Programme, which is not only aimed at high levels of protection of health, safety and environment, but also at regaining trust and credibility for the industry (e.g. SIMMONS & WYNNE 1993). Finally, the advantage of cooperation is that frontrunners are kept in check, and are protected from too large risks, while free riders are not rewarded.

Cooperation of companies within branches or wider frameworks can be conceived in terms of individual firms with mutual interests, but this is not the whole story. Much developments towards greening of industry taken place at collective levels, not only the branches of industry, but also international business fora and international (semi-governmental) organisations that are very active in the fields of sustainable development, such as UNEP, OECD, or World Bank (e.g. SCHOT 1995). Well known initiatives, apart from CERES and the Responsible Care Programme, are for instance the Business Charter for Sustainable Development developed by the International Chamber of Commerce (ICC) (e.g. BORPHY 1996), and the Declaration of the Business Council for Sustainable development (SCHMIDHEINY 1992). Companies are invited to join these initiatives by undersigning a declaration. By doing this the commit themselves publicly to a code of conduct in which they acknowledge a certain responsibility for sustainable development and certain implications for their environmentally related behaviour. Critics say - not without reason - that these declarations contain no real obligations; some involve a commitment to public reporting, but only the Ceres Principles involve submission to independent audits.

4.7 Environmental organisations

No's are organisations who act in the general interest. Environmental organisations stand up for environmental protection and sustainable development, while concentrating on specific issues or particular geographical areas. In this quality they are external stakeholders for certain companies. In principle they address companies on the driving force of social responsibility. The establishing and sustaining of contacts with companies is supported by the spreading of information, preferably through mass media, and the acting upon public opinion. Environmental organisations can have much power over companies, as they may cause big economic harm to them through their actions, in extreme cases by organising consumer boycotts, in general by affecting the company's public image. The big problem is that environmental organisation have hardly any control over their own weapons, and are unable to deploy them proportionally. The events around the oil platform the Brent Spar in 1995 have surprised Greenpeace almost as much as Shell. Companies on their turn don't know exactly how to deal with socially sensitive issues. It is obvious that the real big issues must be recognised in an early stage; disregarding or downplaying can easily become fatal. But how should a company know which of those numerous potentially relevant issues must be treated seriously? It seems that some companies are more sensitive to make the right choices than others. Certain companies - such as Shell - are compromised quite often, and this is not just a matter of performing such harmful activities. It might as well be a matter of corporate culture.

In the past few years, more multinationals have come under public scrutiny because of ethical issues. This is often explained as the result of the changing role of government (steering at distance), or the reduced governmental ability for social control. Previously government was more often addressed for solving the problems caused by the external effects of corporate behaviour, now social groupings rather address the company involved directly. Previously government used to provide social structures for dimming the problems, now the chances of escalation, in the sense of attention in mass media and public response, are greater. As a result, companies have a growing need for structural contacts with environmental organisations, and environmental multinationals, such as Greenpeace are increasingly willing to meet these wishes (such as the recent agreement reached by Greenpeace with Shell and Texaco). Last year, HERKSTRÖTER (1996), president of Shell, has admitted in a remarkable speech, that Shell has made certain misjudgements with respect to providing public information about environmental issues, and that they did not recognise in time important transformations in social structures, a shift of authority from government to environmental and consumer organisations.

The question remains, how to judge these developments. Environmental organisations are treated more or less as representatives of society, but they lack the time honoured democratic control structures of (western) governments. Established environmental organisations risk to loose public support when they commit themselves to the environmental policies of multinationals (c.f. VAN RIEMSDIJK 1994; 1996).

4.8 Employees and trade unions

Employees - and trade unions or workers committees as their representatives - are stakeholders foremost with respect to labour conditions, notably safety and health hazards. Usually the safeguarding of health, safety and environment are mutually compatible. The relevant staff functions are often integrated into so-called HSE departments. Labour conditions are important issues to industrial labour unions, and most companies are well aware of the importance of keeping employees satisfied in this respect.

4.9 Local residents

Local residents are obvious external stakeholders to corporate environmental management, because of the nuisance caused by the regular operations, and because of the safety and health hazards stemming from the presence of these companies in their surroundings. Their big problem is to find sufficient power in support of their interests, which is often a matter of building a strong organisation. When problems arise, local residents usually have the sympathy and support of environmental organisations and local authorities. Serious complaints by local residents are often occasions for enforcement of compliance to legal standards in cases where offences were tolerated by environmental agencies before (e.g. two cases in ARENTSEN, KLOK & SCHRAMA 1994).

4.10 erceptions of stakeholders' pressure

The external stakeholders perspective is a regular approach of the topic of corporate environmental management. Nevertheless there are not many comprehensive empirical studies available of the way pressure from external stakeholders is perceived by companies. One study with corporate respondents from 25 UK firms, performed in 1991, is reported by WILLIAMS, MEDHURST & DREW (1993). The following stakeholder pressures are mentioned, ranked by decreasing relevance:

- Government: environmental legislation is perceived as the most powerful pressure, although firms are only affected by it to the extent to which it is enforced.
- Local communities: a small number of companies is severely affected by pressure from the local community and has accommodated its behaviour.
- Customers are presently not perceived to be a source of environmental pressure, although in some case they are perceived to be a future pressure.
- Suppliers of raw materials are perceived to be an environmental pressure when they pass on price increases as a result of higher environmental costs.
- Employees and trade unions are not perceived to be exerting pressure for improvements in environmental performance.
- Investors are not perceived to be exerting pressure for improvements in environmental performance, and only a small number of firms are aware of this as a possible future issue, for instance with respect to possible soil contamination of their sites.

5. Corporate responsiveness

In this paper some building stones for a theoretical framework for analysing the relationships between companies and external stakeholders are brought up. The dependent variable is corporate responsiveness, and four parameters have been mentioned:

- the specific aspects of corporate environmental management that affects the interests of particular stakeholders;
- the nature of the incentives enacted by the external stakeholders, in particular the type of the company's motivational driving force to which they are appealing;
- the extent of the company's environmental consciousness corresponding to the type of driving force addressed by the external stakeholders;
- the mutual dependencies in the relationship between the company and its external stakeholders.

In this paper corporate environmental management is perceived in terms of reaction on or anticipation of incentives emitted by external stakeholders. Corporate responsiveness is the extent to which a company is willing to reconcile the requirements made by external stakeholders with its own purposes and to integrate them in their environmental strategy.

- Action undertaken by external stakeholders may be provoked by considerations of environmental protection and aimed at specific aspects of corporate environmental management which are directly related to environmental impacts, but they may as well be oriented at other considerations and aimed at aspects of internal environmental management, or at so-called “side-effects”.
- Incentives by external stakeholders are addressed at specific driving forces. Ceteris paribus, the odds of appealing at economic rationality are better than those of appealing at legal regulation, while the odds of appealing at social responsibility are the worst.
- Environmental awareness has three aspects, corresponding with the three types of driving forces. Ceteris paribus, the extent of corporate responsiveness varies with the levels of environmental awareness corresponding with the driving forces to which an appeal is made.
- The extent of corporate responsiveness varies with the company’s perceptions of their dependence on the external stakeholders concerned.

References

Arentsen, M.J., Klok, P.J., Schrama, G.J.I. (1994) *De milieuvergunning in bedrijf. Fase 2. Een onderzoek naar het effect van de milieuvergunning op het milieugedrag in vier bedrijven*. Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieuhygiene, Evaluatiecommissie Wet Milieubeheer. Published as *ECW-Achtergrondstudies, vol 21*.

Arentsen, M.J., Künneke, R.W. (1996) Economic organization and liberalization of the electricity industry. In search of conceptualization. *Energy Policy*, 24: 541-552.

Bhargava, S., Welford, R. (1996) Corporate strategy and the environment: the theory. In: R. Welford (ed.) *Corporate Environmental Management. Systems and Strategies*. London: Earthscan Publications.

Borphy, M. (1996) Environmental policies. In: R. Welford (ed.) *Corporate Environmental Management. Systems and Strategies.* London: Earthscan Publications.

Bos, W.N. (1994) *Milieu-aansprakelijkheidverzekeringen*. Amsterdam: Milieu Aansprakelijkheidsverzekeringen Samenwerkingsverband.

Bressers, J.Th.A., Bruijn, T.J.N.M. de, Kuks, S.M.M., Lulofs, K.R.D. (eds.) (1995) *Milieumanagement. Een systematische aanpak voor bedrijven en andere organisaties.* Alphen aan den Rijn: Samsom H.D. Tjeenk Willink.

Bressers, J.Th.A., Klok, P.J. (1988) Fundamentals for a theory of policy instruments. *International Journal of Social Economics*, 15 (issue 3/4): 22-41.

Bruijn, T.J.N.M. de, Lulofs, K.R.D. (1996) *Bevordering van milieumanagement in organisaties. Een kwantitatief onderzoek naar beleidsvoering met doelbewust gebruik van beleidsnetwerken*. Enschede: Twente University Press (PhD-thesis Universiteit Twente).

Crane, A. (1995) Rethoric and Reality in the Greening of Organisational Culture. *Greener Management International*, 12 (october 1995): 49-62.

Doelen, F.C.J. van der (1989) *Beleidsinstrumenten en energiebesparing. De toepassing en effectiviteit van voorlichting en subsidies gericht op energiebesparing in de industrie van 1977 tot 1987*. Enschede: PhD Thesis University of Twente.

European Commission (1993a) Fifth Environmental Action Plan. Towards Sustainability. *Publications of the European Communities*, C 138, 17-5-1993.

European Commission (1993b) Het Groenboek inzake herstel van milieuschade. COM(93) 47 def, 14-5-1993.

Gladwin, T.N., Kennelly, J.J., Krause, T.S. (1995) Shifting paradigms for sustainable development. Implications for management theory and practise. *Academy of Management Review*, 20 (4): 874-907.

Glasbergen, P. (ed.) (1994, 4th ed) *Milieubeleid. Een beleidswetenschappelijke inleiding*. 's Gravenhage: VUGA.

Hafkamp, W.A., Gilhuis, P.C., Hofland, J., Verschuuren, J.M., Putter, P.J. de (1994) *Een milieuschadefonds in Nederland; een onderzoek naar de mogelijkheden*. 's Gravenhage: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer, Directoraat-Generaal Milieubeheer, Directie Afvalstoffen (*Publicatiereeks Milieubeheer*).

Herkströter, C. (1996) *Dealing with contradictory expectations. The dilemmas facing multinationals. Address to Nederlands Genootschap voor Internationale Zaken in Amsterdam, 11 October 1996*. The Hague: Royal Dutch/Shell Group (available on http://www.shell.com).

Kivisaari, S., Lovio, R. (1996) Greening of management and technology studies. Do we need reconceptualization? In: S. Kivisaari, R. Lovio, R. (eds.) *Bright ideas? Environmental management in Finnish perspectives.* Helsinki: Helsinki School of Economics and Business Administration.

Klok, P.J. (1991) *Een instrumententheorie voor milieubeleid. De toepassing en effectiviteit van beleidsinstrumenten.* Enschede: PhD Thesis University of Twente.

Mintzberg, H. (1978) Patterns in strategy formation. *Management Science*, 24: 934-948.

Mintzberg, H., Waters, J.A. (1990) Does decision get in the way? *Organization Studies*, 11: 1-16.

Netherwood, A. (1996) Environmental Management Systems. In: R. Welford (ed.) *Corporate Environmental Management. Systems and Strategies.* London: Earthscan Publications.

Pröpper, I.M.A.M., Herweijer, M. (eds.) (1992) *Effecten van plannen en convenanten.* Deventer: Kluwer.

Purser, R.E., Park, C., Montuori, A. (1995) Limits to antropocentrism. Towards an ecocentric organization paradigm? *Academy of Management Review*, 20 (4): 1053-1089.

Radersma, S., Schrama, G.J.I. (1996) *Indirecte sturing in beleidsnetwerken. De provinciale overheid en intermediaire organisaties in het regionale milieuzorgnetwerk in Overijssel.* Enschede: Centrum voor Schone Technologie en Milieubeleid. *CSTM Studies en Rapporten*, vol 47.

Richardson, J.J. (1982) *Policy styles in Western Europe.* London: Allen & Unwin.

Riemsdijk, M.J. van (1994) *Actie of dialoog. Over de betrekkingen tussen maatschappij en onderneming.* Enschede: PhD Thesis University of Twente.

Riemsdijk, M.J. van (1997) Company - action-group togetherness and the illusion of control. *Paper for the 13th EGOS Colloquium "Organisational Responses to Radical Environmental Changes", Budapest University of Economic Sciences, Budapest, July 3-5, 1997*. Enschede: University of Twente, Faculty of Management & Technology.

Ryall, C., Riley, S. (1996) Appraisal of the selection criteria used in green investment funds. *Business Strategy and the Environment*, 5 (4): 231-241.

Schmidheiny, S. (with the Business Council for Sustainable Development) (1992) *Changing course. A global business perspective on development and the environment.* Cambridge (Mass): Massachusetts Institute of Technology.

Schmidheiny, S. & Zorraquín, F.J.L. (with the World Business Council for Sustainable Development) (1996) *Financing change. The financial community, eco-efficiency, and sustainable development*. Cambridge (Mass): The MIT Press.

Schot, J.W. (1995) Strategie en milieu. In: F.L.M. Braakhuis, M. Gijtenbeek, W.A. Hafkamp (eds.) *Milieumanagement: van kosten naar baten.* Alphen aan den Rijn: Samsom H.D. Tjeenk Willink.

Schot, J.W., Brand, E.L.M., Fischer, K. (1997) *The greening of industry for a sustainable future. Building an international research agenda*. Rijswijk (NL): The Advisory Council for Research on Nature and Environment (RMNO) and The Greening of Industry Network (*RMNO report 123*).

Schrama, G.J.I. (1997a) The internalization of environmental management at GE Plastics Europe. In: J. Conrad (ed.) *Successful Environmental Management in European Companies*. London: Gordon and Breach.

Schrama, G.J.I. (1997b) The environmental factor in the designing of passenger cars by NedCar. In: J. Conrad (ed.) *Successful Environmental Management in European Companies*. London: Gordon and Breach.

Schrama, G.J.I., Schelleman, F. (1996) Banks as External Stakeholders to Corporate Environmental Management. Trends in the Netherlands. Paper presented at: *The Fifth International Conference of the Greening of Industry Network "Global Restructuring: A Place for Ecology"*, 24-27 November 1996, Heidelberg (Germany). Enschede: Center for Clean Technology and Environmental Policy, University of Twente. Also published as *CSTM Studies and Reports*, vol 45.

Schrama, G.J.I., Verstegen, P.H.T. (1995) Banks and insurance companies as external stakeholders to corporate environmental management. Paper presented at *the Fourth International Conference of the Greening of Industry Network."* in Toronto, Canada, November 12-14, 1995. Enschede: Center for Clean Technology and Environmental Policy, University of Twente.

Shrivastava, P. (1994) CASTRATED environment: GREENING organizational studies. *Organization Studies*, 15: 705-726.

Shrivastava, P. (1995) Ecocentric management for a risk society. *Academy of Management Review*, 20 (1):118-137.

Shrivastava, P. (1996) *Greening business. Profiting the corporation and the environment.* Cincinnati: Thompson Executive Press.

Simmons, P., Wynne, B. (1993) Responsible care. Trust, credibility, and environmental management. In: K. Fischer & J. Schot (eds.) *Environmental strategies for industy.*

International perspectives on research needs and policy implications. Washington D.C.: Island Press.

Sprengers, P. (1996) *Verslag symposium Beleggers en Duurzame Ontwikkeling.* Culemborg: Vereniging van Beleggers voor Duurzame Ontwikkeling.

Starkey, R. (1996) The Standardisation of Environmental Management Systems. In: R. Welford (ed.) *Corporate Environmental Management. Systems and Strategies.* London: Earthscan Publications.

Steger, U. (1993) The greening of the board room. How German companies are dealing with environmental issues. In: K. Fischer & J. Schot (eds.) *Environmental strategies for industy. International perspectives on research needs and policy implications*. Washington D.C.: Island Press.

The Economist Intelligence Unit (1993) *Environmental finance. Evaluating risk and exposure in the 1990s.* New York: The Economist Intelligence Unit.

Tweede Kamer (1989) *Notitie bedrijfsinterne milieuzorg.* Tweede Kamer der Staten-Generaal, vergaderjaar 1989-1990, 20 633, nr. 3. 's-Gravenhage: SDU.

UNEP (1995) *UNEP global survey on environmental policies and practices of the financial services industry*. New York: United Nations Environment Programme.

Vaughan, S. (ed.) (1995) *Greening financial markets. Report of the UNEP round-table meeting on commercial banks and the environment. 26-27th September 1994 Geneva.* Geneva: United Nations Environment Programme.

Welwezen (1995) Milieuschade kan binnenkort verzekerd worden. In: *Welwezen*, augustus 1995: 32-36.

White, M.A. (1996) Environmental finance: Value and risk in an age of ecology. *Business Strategy and the Environment,* 5: 198-206.

Williams, H.E., Medhurst, J., Drew, K. (1993) Corporate strategies for a sustainable future. In: K. Fischer & J. Schot (eds.) *Environmental strategies for industy. International perspectives on research needs and policy implications*. Washington D.C.: Island Press.

World Commission on Environment and Development (1987) *Our common future.* Oxford: Oxford University Press.