45 Environmental Security Deconstructed

Jaap H. de Wilde

45.1 Introduction

The basic logic of the environmental security discourse is that humankind is living beyond the carrying capacity of the earth's local, regional, and global ecosystems. Essence is how to evaluate environmental stress in relation to political stability: is this a matter of ordinary politics or a matter of exceptional politics, i.e. security politics? The debate is dominated by an intriguing paradox: in order to preserve the politicaleconomic and social-cultural structures of local, national, and world societies it is necessary to change them fundamentally, given their un-sustainability. The warning reads that either the structures are changed voluntarily and in a controlled manner, or structural change will be enforced violently and randomly by environmental crises. Much of the debate boils down to the question 'who is to pay a price today to avoid that others have to pay a higher price tomorrow?'

In order to understand this debate it is necessary to distinguish its main components: a) tracing securitizations of risks (45.2); b) tracing referent objects of environmental security (45.3); and c) tracing the development of the security discourse (45.4). It will be concluded that the agenda is too comprehensive, and involves too many clashes of interest to keep a comprehensive environmental security discourse alive. Instead, the concerns have fragmented into issue-specific securitizations (45.5).

45.2 From Risk Assessment to Securitization

Security analysis begins with risk assessment. Whether a risk will be securitized depends on its perception. Risks are hard to define in abstraction (Brauch 2005; Thywissen 2006). They range from being deadly to mere nuisances, can be perceived as exciting (alpinists climbing the Matterhorn), as fact of life (pedestrians crossing crowded streets) or as unacceptable (governments facing foreign invasions). In the unacceptable cases, a risk is perceived as a threat. Threat is securitized risk. It would be too simple, however, to treat 'risk' as the objective part of the equation, and its perception as the subjective part. Risk analysis itself may focus on 'material facts', like the chance of a natural hazard, but it is embedded in a wider social context (cultivated in Ulrich Beck's (1986, 1992) Risk Society). The simple logic of 'Risk = Chance x Damage' has an objective ring to it. Yet, it implies a negative chance for a referent object. Referent objects and (negative) perceptions of chances are socially constructed, i.e. intersubjective by nature. The issue of determining referent objects will be discussed below. This section looks at the importance in distinguishing risk assessment from its securitization.

Security is the absence of threat. In a security discourse, however, the word 'security' is used for exactly the opposite purpose: it points at the presence of a threat. A risk is securitized, i.e. turned into a security issue, rather than merely a political issue. Securitization theory has been launched by Ole Wæver (1993) and further developed in Buzan, Wæver and De Wilde (1998). The approach originates in social constructivist theories, and focuses on the social-political functions of labelling something a security issue. Using the word security dramatizes the risk, and presents it as a threat of supreme urgency. "In theory, any public issue can be located on the spectrum ranging from nonpoliticized (meaning the state does not deal with it and it is not in any other way made an issue of public debate and decision) through politicized (meaning the issue is part of public policy, requiring government decision and resource allocations or, more rarely, some other form of communal governance) to securitized (meaning the issue is presented as an existential threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure)" (Buzan/Wæver/De Wilde 1998: 23-24). If an issue becomes a security issue, dealing with it legitimates extra-ordinary measures. This makes it a

stronger form of politicization. Politicization merely means that a specific issue enters the political agenda – securitization gives it top priority on that agenda; it defines 'high politics' for the actors involved.

This political or even supra-political nature of securitization implies that the 'securitizing actor' (someone who pulls attention to specific risk assessments) also presents a security policy to answer the threat. Risks that are beyond grasp can hardly be securitized: there is simply nothing one can do. For understanding the fluctuations in the securitization of environmental issues this is quite crucial: Alarming reports about climate change will lose political relevance (and attraction) when they show that action to reverse the trend comes too late anyway. In that case only securitization of its effects makes sense. Securitization therefore triggers two debates: one about the underlying risk assessment, one about the strategic answer to it. These security policies may range from a plea for collective praying to the build-up of a standing army or from putting farmers and fishermen out of their traditional business to the drafting of international treaties. Their societal impact is enormous: state building and nation building - i.e. processes of organizing collective action and identity - is strongly focused on shared threat perceptions. So far, securitization of environmental risks has resulted in a fragmented community only, consisting of green parties, environmental social movements, and NGOs, academic environmentalists and ecologists, and civil servants in environmental organizations (ministries, IGOs).

If a security discourse persists it will result in community-building and institutionalization, often involving enmity/amity patterns with dissenting or competing groups and organizations. A paradox of security discourses is that, in time, they come to dominate politics and social life so strongly that they develop into ordinary politics. Communities and societies are built on security discourses. To add to the complexity: Non-governmental institutionalization intensifies the security discourse as long as they are not hospitalized by elitist pliability, whereas governmental and intergovernmental institutionalization moves 'the environment' into the realm of ordinary politics – a process of desecuritization.

Security discourse begins with a securitizing actor. Other participants in the discourse are irrelevant for detecting the discourse even though they are crucial for understanding its proceedings and political consequences. Securitizing actors can be found anywhere, but it is useful to follow the classic divide into public actors (state governments, their departments and representatives, intergovernmental organizations, and local level governments) and private actors (political parties, national and transnational NGOs, movements, firms and corporations, scientists, the media, and unorganized individual activists).

Securitizing moves (i.e. attempts to turn something into a security issue) by private actors differ from those by public actors. The actions by private actors are attempts to pull public attention to the perceived threats – which generally requires media attention. The aim is to change societal and governmental priorities. Securitizing moves by public actors are either legitimizing extra-ordinary measures, for example to cope with specific crises such as droughts or floods, or they are setting priorities among competing issues on the agenda, for example debates about the 'national interest' (Deudney 1990).

Public actors have an advantage over private ones – even if the latter profit from transnational mobility. Taxation and societal dominance allow them to set the political agenda and to determine 'emergency situations'. Public actors can be dominant securitizing actors (e.g., the US government in the early 21st century in its 'war against terror'), but in general they simply, reflect, and reproduce institutionalized security discourses: the national interest begins and ends in military security, law, and order. 'Sustainability' in environmental terms at best functions as a national interest in developing countries to secure foreign funding. In the absence of a public legacy, environmental concerns have to fight for their prominence against vested economic and cultural practices.

Given the lack of direct access for private actors to governmental resources and policy-making, securitizing environmental issues can be a strategy to achieve politicization. The actions by Greenpeace are a good example of getting issues, like whaling, politicized in public discourse. These securitizing moves of activists are directed against Japanese and Norwegian fishing industries, defined by Greenpeace as an existential threat to the future of a species. Whether it is really the whales or the underlying economic and cultural logic that is at stake is not clear from the securitizing move as such. The search for real and symbolic referent objects requires separate attention.

The securitizing actors are also called *lead actors*, since they trigger the discourse. *Lead actors* take the initiative to put environmental issues on the policy agendas of governments, international organizations, the media, and firms. In addition, other actors who are socially linked to the issues at stake construct the security discourse. These are *functional actors*, i.e. ac-



tors whose behaviour is involved in the issues raised by the securitizing actors. If they directly oppose them, they contribute to the environmental security discourse by adding to its polemic nature: attracting media attention, which intensifies the salience of the issues. Often they cannot escape this role: they have their own existential worries. If they (can afford to) acquiesce in, evade, circumvent or indirectly oppose securitizing moves they are *desecuritizing actors*. Emphasizing competing threats can also be a strategy to counter securitizing moves. In case of a lasting stalemate among securitizing moves a second paradox in security discourses appears: the battle about extra-ordinary measures becomes ordinary politics. Manifest crises may help to tilt the balance, but in the case of long-term disaster scenarios environmentalists have a hard time to show the urgency of their concerns. And when they are proven right, it is too late (figure 45.1).

If successful, securitization leads to security policies (e.g., emergency measures). Security policies aim to eliminate threats by reducing risks or managing their effects. An existential threat can be defined as an event that would create an emergency situation for or even destroy the referent object of the securitization. Securitization spells out the emergency situation; the subsequent security policy aims at *desecuritization*. This can be defined as an attempt to preserve the status quo or to go back to normal (restore the status quo ante) as soon as possible. Note, however, that desecuritization can occur also independent of a security policy, due to shifts in the security discourse: even when risk assessments remain unchanged, priorities may change. This seems to be the case in the environmental security discourse.

Institutionalization of security discourses makes these discourses subjects of ordinary politics. Governments and societies develop rules that allocate the means allowed to master emergency situations. Fire brigades, ambulances, police forces, intelligence services, and armies are standard examples of institutions with specific extra-ordinary rights to prevent threats to various referent objects or to limit their effects. But as long as the sirens do not howl, the debates about their place in society (about budgets, personnel, working hours, etc.) are part of ordinary politics. Hence, security organizations and security policies function mainly in the realm of politicization rather than securitization – even though their reports and budgetary claims will be cast in securitizing words.

45.3 Referent Objects of Environmental Security

Whose security and what kind of threats are we talking about? Environmental security is a catchall for a wide variety of issues. In the literature several overlapping key issues reappear.¹ The reason to talk about environmental security is that the process of human civilization involves a manipulation of the rest of nature that in several respects has achieved self-defeating proportions. This is mainly the result of two developments: the explosive growth of the world population and the explosive growth of economic activity, both in the second half of the twentieth century. It is not a problem of humankind's struggle with nature, but a problem of humankind's struggle with the dynamics of its own culture(s) – a civilizational issue, which expresses itself mainly in economic and demographic dimensions, and potentially affects the level of anarchy in world politics.

The basic logic of environmental security is that, in a global perspective, humankind is living beyond the carrying capacity of the earth. The exact meaning of this is disputed, but carrying capacity can be defined as the total patterns of consumption that the earth's natural systems can support without undergoing degradation (Ehrlich 1994). These patterns of consumption involve several variables, such as total population, production modes, and gross per capita consumption levels. In short, carrying capacity depends on numbers, technology, and lifestyle. Compare the famous IPAT equation (environmental Impact = Population x Affluence x type of Technology) designed by Paul Ehrlich and John Holdren (1971), which, despite the criticism about its operational value, still catches the three main elements of the environmental security agenda (Chertow 2000). One billion Westerners is enough to tilt the system; some five billion people in low-income economies will do the same. This culminates in the following widest formulation of the environmental agenda:

- *Disruption of ecosystems.* This includes climate change; loss of biodiversity; deforestation, desertification, and other forms of erosion; depletion of the ozone layer; and various forms of pollution.
- *Energy-related problems.* These include the depletion of natural resources, especially fuel wood; various forms of pollution, including management disasters (related in particular to nuclear energy,

oil transportation, and chemical industries); scarcities and uneven distribution.

- *Population-related problems.* These include: population growth and consumption beyond the earth's carrying capacity; epidemics and poor health conditions in general; and social-political uncontrollable migrations, including unmanageable urbanization.
- Food-related problems. These include poverty, famines, over-consumption, and diseases related to these extremes; loss of fertile soils and water resources; epidemics and poor health conditions in general; and scarcities and uneven distribution.
- *Economic problems.* These include the protection of unsustainable production modes, societal instability inherent in the growth imperative (which leads to cyclical and hegemonic breakdowns), structural asymmetries and inequity.
- *Violent conflict-related problems.* This includes war-related environmental damage on the one hand and violence related to environmental degradation on the other.

A first feature of this list is that it shows a distinction between threats *to* the environment, leading to securitization of the environment itself, and threats *from* the environment, leading to securitization of the people and societies that depend on it (see for a similar distinction the "Survival hexagon of six resources and social factors" in Brauch 2005: 15). In all cases the environment as such is the explicit referent object in 'environmental security', but in a large part of the debate also another concern figures prominently: the preservation of existing levels of civilization.

Useful in this respect is Barry Buzan's definition, saying that "environmental security concerns the maintenance of the local and the planetary biosphere as the essential support system on which all other human enterprises depend" (Buzan 1991: 19–20). Implicitly, this concern forms also the deeper motive behind many of the 'purely' environmental debates - be it not behind all of them. In particular debates about endangered species, like whales and rhinos, or the protection of the natural beauty, as well as some of the Gaiaideologies are purely inspired by concern about the environment. Hence, strictly speaking, there are two different referent objects: environment and civilization. But in general, both are mixed-up, with an emphasis on the latter.

The emphasis on 'human enterprise' as the referent object of environmental security is of crucial importance: those of us able to perceive and be concerned about threats (for many a luxury) want to

¹ See, e.g., the agenda presented in MacNeill/Winsemius/Yakushiji (1991: 131), Böge (1992); Brauch (2005: 64), and on websites of organizations like *Earth System Science Partnership*, <http://www.essp.org>; Global Environmental Change, <http://www.gecko.ac.uk>; and the Worldwatch Institute, http://www.worldwatch. org)

continue and improve life as we know it. Despite its appearance, most environmental security debates are *not* about threats to nature, as such - and with good reason so. From a geological point of view there is not even a problem: the earth has been in its place for billions of years, and what is happening on its crust since, say the Industrial Revolution, is rather unimportant. Also for the crust itself a nuclear winter, global warming, a hole in the ozone layer, the disappearance of dinosaurs or the future marginalization of human beings are relatively meaningless events. The ultimate referent object of environmental security is the risk of losing achieved levels of civilization - a return to 'raw anarchy' and forms of societal barbarism - while being able (or having the illusion so) to prevent this.

This focus implies a paradox for primarily the 'West', but also for the 'less developed' world. The paradox is that in order to guarantee future reproduction of the present levels of civilization in terms of wealth, power, and culture, it is necessary to fundamentally change much of the present global structures, in terms of world economy, international system, and cosmopolitan values. How much change and how to achieve it, is at the centre of the politicization and securitization of environmental issues.

At first sight, this debate involves a powerful agenda for the South against the West, and many studies treat it as such.² But on closer look it is far from clear how the poverty-affluence dichotomy can be broken in such a way that this will help to solve environmental problems. Despite all the rhetoric about sustainability much of the debate is still about giving 'developing' countries the chance to copy the 'developed' ones. Third World elites show the way. Making the poor more affluent in the Western sense of the word (by promoting industrialization, oversupply and over-consumption) will merely aggravate the environmental problems caused by affluence. In a world consisting of only the present affluent people (roughly twenty per cent of the world population), most of the ongoing and expected ecological problems would remain the same, both in nature and in scale (Amalric/ Banuri 1994).

The economic growth of China is indicative of the environmental problems that result from successful economic development. In the 1990's, the Worldwatch Institute has warned against the enthusiasm over China's economic growth (L. Brown 1995; Smil 1993: 190-194). Rising incomes generally lead to changes in the diet, meaning more consumption of meat, milk and eggs, meaning that more grain is used for animal feed. Meanwhile China's food production capacity is eroding (due to soil exhaustion and land clearance for industrial purposes) and its population is growing (up to 1.6 billion in 2030). Even if new types of 'super rice', leading to a harvest increase of some 20 per cent, are introduced successfully this demand will put tremendous pressure on the international grain and rice markets. Additionally, it is expected that Africa's need for importing grain will rise from 25 million tons now to 250 million tons in 2030. "It will probably not be in the devastation of Somalia, Haiti or Rwanda, but in the booming economy of China that we will see the inevitable collision between expanding human demand for food and the limits of some of Earth's basic systems," Brown concludes. This might be too pessimistic; in many parts of Africa grain production is not yet profitable due to low world market prices. Nevertheless, looking at environmental costs, one line of reasoning argues that "the poor are not the problem, they are the solution" (Adams 1990: 201, quoting R. Chambers).

Yet, making the affluent more poor is, within the existing economic parameters, meaningless too. Its immediate effect would be an even faster deterioration of conditions in the Third World, enhancing the likelihood of negative spill over to political and military conflicts: politically weak states will grow even weaker, and the number of failed states will grow. The causes of population growth will go unsolved, and more people may get trapped in them. The necessity of reducing Western consumption patterns to sustainable proportions is evident according to virtually all specialists, but this involves adjustments of production, supply and demand structures, rather than an impoverishment of lifestyles.

In concepts like sustainable development (WCED 1987) part of this dilemma has been politicized: structural change of both affluent and poor lifestyles is advocated. But what this means is treated rather superficially. Also the report of the Club of Rome by Wouter van Dieren (1995, 1995a) triggers the proper debate without solving it: how to redefine GDP calculations in such a way that environmental degradation is not mistaken for economic growth? 'Human security' is the latest buzz word repeating the same diagnosis without offering the cure (De Wilde 2008). In absence of answers this means that, as long as the North-South polarity in the world economy is in place, concepts like 'global burden sharing', 'common

See: WCED 1987; Adams 1990; MacNeill/Winsemius/ Yakushiji 1991; Myers 1993, 1993a, 1993b; Williams 1993; Smith/Okoye/de Wilde/Deshingkar 1994; Najam 2003.

security', 'global challenges', and 'human security' are hollow rhetoric in the worst case, and idle attempts to bridge asymmetrical interdependence in the best case.

Environmental problems will bear unevenly across the world: some regions are affected more directly and severely than others. Environmental disaster scenarios boil down to quite different priorities, depending on the geopolitical and social conditions one is in. This is aggravated by the fact that the distribution of 'causes' follows a different pattern than that of the 'effects'. The controversies about the Kyoto protocol, e.g. show the discrepancy between those who will suffer from global warming and those who will suffer from preventive policies. Ultimately the whole international system and the entire world economy may be disrupted, but in the short run the long list of environmental problems is more likely to sharpen the structural cleavage between haves and have-nots, both on a regional basis and within societies, with structural conflict at its territorial and its societal edges.

This shows the importance of paying central attention to the various referent objects in environmental security. The securitizing moves point at an entity that is threatened (referent object I) but also at an entity that is causing the threat (referent object 2). To preserve the quality of referent object I, referent object 2 is requested to pay a price. This results in conflict. The environmental security discourse therefore always implies a struggle between groups in society.

This is even so in the case of natural hazards, when it seems to be humankind against nature. Many societies are structurally exposed to recurring extreme natural events, like earthquakes, volcano outbursts, cyclones, floods, droughts, and epidemics. They are vulnerable to them, and much of their history is about this continuous struggle with nature. The risks involved are often explicitly securitized. In the Netherlands 'protection against the sea' is a high-ranking national interest; the same goes for protection against earthquakes and tsunamis in Japan. But, as soon as some form of securitization occurs - when some measure of human responsibility replaces 'fate' or the 'hand of God' - even this group of conflicts tends to develop a human versus human character: following the river floods in the Low Countries in 1995, the debate was about political responsibilities for the dykes: who's to blame, and what to do? In Japan, following the Kobe earthquake early 1995, designers of seismological early warning systems, house building construction techniques, and contingency plans were under fire. In 2005, the flooding of New Orleans stirred opposition against the failing environmental policies in the Mississippi delta. Moreover, the distinction between natural and man-made hazards is getting blurred.

Therefore, except for cases where people undergo natural hazards without questioning, the logic that environmental security is about 'threats without enemies' (Prins 1993) is misleading. Though it is not about good versus bad guys (as in the cartoon series Captain Planet) the political debate does ultimately focus on specific groups (humans in certain professions and industries) who have to change their behaviour. Not everyone in every society is expected to pay the same price, and enforcement of specific measures is clearly needed. This explains why environmentalists count few captains of industry among their members (retired ones excluded, of course).

The contradiction within environmental security is that in order to secure civilization from environmental threats, much of civilization has to be reformed drastically or even be pulled down. Environmental protection goes far beyond the technological challenge of finding the right solution and implementing it in time; but one can hardly blame specific interest groups for desperately hanging onto the hopes of a techno-fix: their jobs and lives are involved.³

45.4 Development of the Discourse

There are two ways in which the environmental security agenda is being constructed. Roughly speaking they resemble the divide between a traditional natural science approach and a social science approach. The first agenda is a natural science one. The academic discourse is about risk assessments and scenarios (see, e.g. the first two volumes of Munn 2002). The reports are at the basis of the political discourse. Hence there is a tendency to treat scientific facts as material facts rather social ones. It is important to point this out, since other security discourses, most notably the military security discourse, show a reverse order: there is political anxiety about perceived threats, and the academic world responds to this by investigating the grounds for this perception. In the environmental realm alarming reports often preceded the actual hazards. Partly this is the result of the time dimension involved in environmental threats: hazards can occur immediately, but their causes will be located way in the

³ About the fallacy of the techno-fix see: Porter/Brown (1991: 28-*29*); Myers (1993: 227, 245); Williams (1993: 15); Okoye/Smith (1994: 5-6) and Homer-Dixon (1999).

past. The academic agenda offers a list of environmental problems which already or potentially hamper the evolution of present civilizations and societies.

The second agenda is a political one. At stake here is not whether specific threats to the environment (and thus to the people who depend on it) are real or imaginary, but whether their presumed urgency is a political issue or not. It shows the development of the *cognitive dimension* of environmental security. This dimension is about 'internalizing externalities'; a process of social learning. The political agenda is about: a) the awareness of the issues on the scientific agenda; b) the acceptance of responsibility for dealing with these issues; and c) the political management questions related to them: problems of international cooperation and institutionalization, the effectiveness of unilateral initiatives, distribution of costs and benefits, free-rider dilemmas, and problems of enforcement.⁴

45.4.1 Fatalistic Utopian Literature

Environmental concerns are age-old, but the environmental security discourse as we know it today originated in the late 1950's, in the scientific agenda. Much of the early literature on environmental security misses awareness of the political clashes of interests between the victims of 'business as usual' and the victims of structural change (see previous part). This makes them idealistic in political terms: they are based on the presumption that harmful practices are mainly the result of a lack of knowledge; an information gap. These early studies can be labelled the 'global challenges' literature: publications that deal with the problems humanity has in common. They bear holistic overtones, and emphasize the overarching nature of global problems. The message is that these problems ought to render obsolete the political, military, cultural, and economic conflicts that divide the 'members of the human race'. Book titles, like Spaceship Earth (Ward 1966), This Endangered Planet (Falk 1970), Living on the Third Planet (Alfvén/Alfvén 1972), Mankind at the Turning Point (Mesarovic/Pestel 1975), Securing Our Planet (Carlson/Comstock 1986), Making Peace with the Planet (Commoner 1990), Healing the Planet (Ehrlich/Ehrlich 1991), or Ultimate Security (Myers 1993) are illustrative. Most of the authors have their roots in natural sciences.

The essence of the global challenges literature is simple: because of the huge common challenges for humankind states have to cooperate and forget about their narrow, short-sighted, short-term egocentric interests. It is the automatic expectation of cooperation which turns this type of literature into utopianism. It would be wrong, however, to dismiss its analyses on this ground. The bulk of what the global challenge literature is about is far from utopian; it is closer to being fatalistic. 'Ecological conditions deteriorate seriously, unless ...' is the main message. It would be unfair to judge these warnings only by what is written in the 'unless ...' parts. The true purpose of this literature is to change politics, not to analyse it.

A remarkable aspect of this literature is its topdown nature. The environmental agenda was originally conceived as a global one. Its emergence is not the result of the globalization of local developments but of the discovery of global consequences of seemingly harmless individual or local practices. This contrasts with the development of other security agenda, which evolved out of the gradual globalization of problems that originally had a local character. It took military security, for example, centuries to develop on a global scale. The bulk of the literature argues that, to use the words of Hurrell and Kingsbury (1992: 2), "Humanity is now faced by a range of environmental problems that are global in the strong sense that they affect everyone and can only be effectively managed on the basis of cooperation between all, or at least a very high percentage, of the states of the world: controlling climate change and the emission of greenhouse gases, the protection of the ozone layer, safeguarding biodiversity, protecting special regions such as Antarctica or the Amazon, the management of the sea-bed, and the protection of the high seas are among the principal examples." This sounds good, but it is not true. The concern is global, but most pollution-related problems require first and foremost action by individual highly industrialized states only; protection of Antarctica, except for the hole in the ozone layer, could be left to the seven states that have legal rights there. The Amazon region would be protected best by leaving it alone, a decision that rests essentially with the Brazilian government and a few business enterprises. The global dimension is present, but not as overwhelmingly as is often suggested.

Environmental threats and vulnerabilities are issue specific and seldom universal. Global events seldom have the total character of a potential nuclear winter. Most global events, including climate change and massive migrations, can be compared to events such

⁴ The overlap between them is obvious: the community who draws up the scientific agenda is also a political actor, and politics and economics are clearly present in academic life.

as the two world wars and the Great Depression: Every corner of the earth is affected but not to the same degree. World War I, for instance, caused more Australian than Swiss casualties, even though Switzerland lies a few hundred kilometres from the main front. Most global environmental crises have similar uneven effects and involvements. This makes it very hard – and utopian – to unite people in face of fatal developments.

45.4.2 Limited Institutionalization

Nevertheless, the global take-off of the environmental security discourse was matched by an institutional response. Universal acceptance of the environment as a security concern was acknowledged at the United Nations Conference on the Human Environment (UNCHE or Stockholm Conference) in 1972. The Stockholm Conference was more than a symbolic turning point. Here, the 114 participating states adopted twenty-six broad principles on the management of the global environment, an Action Plan with 109 recommendations, and the United Nations Environmental Programme (UNEP) was initiated. Moreover, "over half of the 140 multilateral environmental treaties that have been adopted since 1921 were concluded since 1973," Keohane, Haas, and Levy (1993: 6) report. Many countries established ministries of environmental affairs in response to UNCHE.

Close to this event was the appearance, in 1972, of *Limits to Growth*, the first report of the Club of Rome. It signalled the progressive scarcity of natural resources, and the presumed political vulnerability of the North over against the South. Publications like Rachel Carson's *Silent Spring* (1962) formed another trace that made a public impact. Carson made a strong case against uncontrolled use of synthetic pesticides. Global non-governmental organizations were then also formed, such as *Friends of the Earth* (1969) and *Greenpeace* (1972).

Another trace comes from the debate on nuclear energy and nuclear weapons. The Limited Test Ban Treaty (1963) would have been unthinkable were it not for the clear disasters caused by above ground testing. Studies on a nuclear winter, and accidents in nuclear power stations made people think – including many ambitious nuclear physicists.

In this process of *politicization* and *securitization* it makes sense to distinguish *Silent Spring*-type and *Chernobyl*-type lessons – the first referring to rational risk assessments, the latter to dramatic disasters (De Wilde 1994). The dissemination of scientific insights

(Silent Spring lessons) and media coverage of manmade disasters (Chernobyl lessons) are the two main forces behind environmental awareness. There *are* Chernobyl's, Bhopal's and Exxon's *Valdez*, and there *are* scientific studies that spell out the risks.

Nevertheless, the obvious did not happen. One would expect that the environmental security discourse would gain strength over the years, culminating in a greening of politics and structural change in economic practices. This is not the case. After the initial excitement in the 1970's and the subsequent institutionalization of environmental concerns, public and political attention decreased. At the end of the Cold War and in the early 1990's there was a revival of the interest, but this was mainly due to concerns in military circles about their future mission. In the late 1990's and especially since 9/11, the military lost their interest. In the antiglobalist movements the original environmental concerns are very much alive, but mainly as an aspect of their overall aversion of the dominant power structures.

45.5 Conclusion

In theory, one explanation for the declining interest in the environmental security discourse could be successful treatment of the issues – which is the best route to *desecuritization*. But the scientific agenda has hardly changed since the 1970's. Some of the analyses proved wrong, but even if say 20 per cent of the present disaster scenarios come true, coming generations will be born in harsh circumstances worldwide.

A better explanation is that the overall agenda simply is unmanageable. The kind and scale of change necessary to alter the economic and demographical roots of environmental risks are probably beyond the world society's capacity – merely anarchical 'solutions' (catch as catch can) are to be expected. The immediate price of sophisticated action is too high to stand a chance in politics.

Instead and perhaps as a result, the environmental security discourse has fragmented into issue-specific concerns. The man-made contribution to natural hazards is discussed each time a hurricane hits the land or when an earthquake destroys the housing of millions. Accidents with oil tankers and in chemical industries lead to new Chernobyl-type lessons time and again. But comprehensive global programmes to deal with the risk scenarios and their structural underpinnings are unlikely to leave the drawing tables.