Martin Jänicke:

GLOBALISATION AND ENVIRONMENTAL POLICY: IS THERE A FUTURE FOR NATIONAL AND REGIONAL PIONEERS?

• "The increasing globalism of social and economic interaction can be counter-acted only by a growing globalism of governance" (Zürn 1996: 23).

1. Introduction

Current prevalent globalisation theories contain much that is either not new or is untrue. What does stand out as new and significant to me is the globalisation of environmental policy in the last ten years. There is a widespread perception that the current phase of economic globalisation will lead to a 'race to the bottom' in environmental policy. Closer attention to this international development, however, casts doubt on the accuracy of this perception. Therefore, I wish to examine this question here.

At first glance, the 'race to the bottom' thesis seems indeed plausible. Why should the world market not exert the same pressure on advanced nations' regulatory systems for environmental policy as it does on their tax systems, social systems and levels of income?

These questions are worth investigating, then: Can the world market be ecologically steered? Are pioneering achievements in the ecological area no longer possible at the national and regional level? Do they stand in the way of economic competition? Or is perhaps the opposite true: Has ecological modernisation become an important part of the general process of economic modernisation? Has the global spread of environmental policy altered the determining conditions of the world market?

Pessimistic as well as optimistic perspectives can be taken on these questions. As the pessimistic view is quite well-known (see Altvater/Mahnkopf 1996; Martin/Schumann 1996; Narr/Schubert 1994), I would like to examine the optimistic view more closely. The point here is not to play down the global environmental problem; in this matter there is little room for optimism. Rather, the question is whether globalisation is really the main problem, and whether it does not also present significant opportunities. There may be good reason to see the national and regional innovation systems as important factors of global environmental policy development.

In this connection, I will make a series of thesis-like statements. They concern:

- the globalisation of environmental policy,
- the significance of national and regional pioneers in environmental protection, and
- the significance of ecological modernisation in international competition.

2. The globalisation of environmental policy

The global expansion of environmental policy has been underway for roughly thirty years. In the 1970s and 1980s the industrialised nations created institutions and laws for the purpose of environmental protection. Since the end of the eighties there has been a globalisation of environmental policy. The world-wide expansion of environmental policy institutions in countries of every shade is an important fact today.

The first national environmental agencies and ministries were established by pioneering countries at the end of the 1960s. All industrial nations have by now introduced an institution of this kind. Spain, which did so in 1996, was the last to take this step. In most Third World countries this process of diffusion typically took place later. Today almost all of the 35 countries we studied (Jänicke/Weidner 1997) publish a regular environmental report. Two-thirds of them have incorporated principles of environmental protection in their constitutions, and an equivalent number have a basic law for this policy area. The impact of those institutions is often rather limited and depends on national capacities. But the degree and speed of global diffusion is a remarkable.

The most important **mechanisms in the globalization of environmental policy** are:

1) At the **international level**:

- the growing significance of governmental and non-governmental institutions and organisations which pursue goals of environmental protection,
- the tendency toward 'ecologisation' of existing international institutions and organisations.

2) At the **national level**:

- the spread of national environmental policy institutions into other countries,
- the increasing global interconnection of these national institutions.

3) At both levels:

• the direct ('horizontal') and indirect ('vertical') diffusion of environmental policy innovations through these international organisations and networks.

Thesis: There is strong evidence that environmental policy is strengthened more than it is weakened at the national (as well as the regional) level through globalisation.

This position is explained in the following.

2.1. The growing significance of international environmental policy institutions and organisations

The increased importance of *international* environmental policy is, first, a result of the creation of new institutions for environmental protection (e.g., UN Environmental Programme

1972, Commission on Sustainable Development 1992) and 'environmental regulatory regimes' (e.g., Basle Convention). Many of these institutions are regional in scope (e.g., North Sea Ministers Conference).

Second, the importance of international environmental policy has grown as a result of the 'ecologisation' of existing international institutions. Almost all existing international organisations have extended the scope of their activities in the environment. Since the 1970s, the OECD has played an especially active role in the diffusion of progressive experience gained by individual pioneering countries. The World Bank assumed this role at the end of the 1980s following sharp public criticism of its disregard of ecological principles. It has, for example, moved a large number of Third World and Eastern European countries to draft national environmental action plans and has made this a condition for receiving loans. In many cases, it has drafted these plans itself. In addition to the World Bank, various new and existing regional organisations such as EU, ECE, ASEAN and NAFTA have become active in environmental policy.

The *co-operation of decentralised institutions* plays an important role in the globalisation of environmental policy. This is exemplified in Europe by associations such as the Assembly of European Regions and the Council of Municipalities and Regions in Europe. The best-known form of co-operation in environmental policy is between cities (ICLEI). This type of co-operation is especially important given the simultaneous intensification of economic competition between regions.

The globalisation of environmental policy is not limited to governmental institutions. The spread and international networking *of environmental groups and other private organisations and institutions* has been carried out at an equally rapid pace, positioning them to play an important role at international environmental regulatory regimes.

This is true also of 'green' business organisations the likes of the World Business Council for Sustainable Development, the Social Venture Network (800 members world-wide), the European Partners for the Environment, or the Greening of Industry Network. 'Green' business activities -- including, but not limited to, 'green washing' -- are being undertaken in developing nations as well.

This globalisation of environmental policy has been accompanied by the emergence of *press coverage of environmental issues*. International in its reach, it draws attention to the strengths and weaknesses of individual countries, thus creating a kind of environmental policy competition. The campaign against Shell Nigeria is an example of the globalisation of environmental protection through communications. In an earlier and similar case, Union Carbide learned a similar lesson in the aftermath of the Bhopal catastrophe: flagrant environmental negligence in a country far from a corporation's base of operations and chief markets can lead to serious financial losses.

Especially significant today is the *globalisation of environmental science*. Scientific organisations -- such as the ICSU (International Council of Scientific Unions), IGBP (International Geosphere-Biosphere Program), WCRP (World Climate Research Programme) or, of late, the IHDP (International Human Dimensions of Global Environmental Change

Programme -- and special research networks in many cases exert considerable influence on environmental policy.

2.2. The global diffusion of environmental policy innovations

Up to now, the growing significance of international environmental policy has been attributed primarily to the international organisations. However, the direct and indirect diffusion of environmental policy innovations in pioneering countries is of similar importance. It could even account for the larger part of the globalisation of environmental policy, as suggested by the importance of national and regional pioneering achievements to the environmental policy of international organisations.

The direct spread ('horizontal diffusion') of environmental policy innovations on the part of individual regions and countries occurs by imitation. Indirect spread takes place via the diffusion mechanism of higher institutions. The imitation of pioneering environmental policy achievements by, for example, California in the United States, and the subsequent imitation of the US by countries such as Germany in the early 1970s, is an example of this (Kern 1997). At work here was the transmission of ideas both by direct pioneering example, as well as the international announcement and recommendation of models at the UN Stockholm Conference of 1972.

In the 1990s, the spread of new environmental institutions has presumably accelerated. More than 80 per cent of the industrial nations have already adopted the national environmental planning or sustainability strategy recommended at the 1992 Rio Conference (Agenda 21) (Jänicke/Carius/Jörgens 1997). In accordance with a 1997 resolution of the UN General Assembly, by the year 2002 all countries are to have drafted a formal sustainability strategy which includes some form of national environmental planning.

World-wide, approximately 1,800 cities have begun or completed a local Agenda 21 on the model initiated at the Rio Conference (Zimmermann 1997). In Sweden all cities have, or are in the process of implementing, a local Agenda 21. Even in Great Britain 70% of all cities have begun or completed such a plan (Jänicke/Weidner 1997). In the Netherlands roughly a third of all municipalities have implemented Agenda 21. Admittedly, these figures are only an indication of the pace of the spread of these institutions, not of their effectiveness so far.

The speed at which environmental policy innovations spread appears to be a good indicator of whether a certain policy measure is an easy or a difficult matter in national environmental politics. Environmental labelling, for example, has spread throughout the world extremely rapidly. In contrast, the international spread of soil protection laws faces great obstacles, as is to be expected in an area so subject to constraints.

Overall, however, the pace of diffusion of environmental policy innovations over the globe is faster than that of, in their time, the institutions of the social state, or of parliamentary government, which after all is still spreading after three centuries (taking the Bill of Rights as starting point). Developments in environmental policy apparently do not take any longer to spread than do technological innovations. While technology often spreads, with long delays, by way of horizontal processes of diffusion and imitation, political innovation -- at least in

the environmental area -- takes advantage of vertical diffusion mechanisms (see Kern 1997) of the UN system, OECD, the EU and other international institutions.

Today, the direct diffusion of environmental policy improvements is reinforced through 'benchmarking', the systematic adoption of best practice. Here again, the demand for environmental innovations (and solution of problems) is an driving force. The concept of benchmarking has spread internationally, due in large part to the reform of the public sector in keeping with the principles of New Public Management.

2.3. The global network of governmental and non-governmental players in environmental protection

Thus, we must correct our picture of international environmental policy. It does not take place primarily from the top down. The globalisation of environmental policy is, first and foremost, a global policy-learning process that takes place in diverse ways, including through international institutions. Globalisation of environmental policy means, first, the increase in international environmental institutions. Second, it means the increase in environmental institutions and environmental protagonists in ever more countries. And third, it means the increasing global interconnection of these national proponents of environmental interests. *This interconnection at the international level strengthens environmental policy efforts at the national level as well.*

The national (and regional) level is no less important than the international environmental organisations and international regulatory regimes. Most striking about the developments of the last decade is the parallelism of the rapid global diffusion of environmental policy institutions *and* their networking at the national level.

This is true, for instance, of the global scientific communities in specialised areas of environmental protection. There is at this point considerable interconnection at the administrational level of environmental policy areas -- global networks of department managers, so to speak. One example is the Intergovernmental Panel for Climate Change. Another is the global Network of Green Planners, which is based in the Dutch environmental ministry and has supported the rapid international spread of policy planning concepts. New loyalties are formed, along with new, specialised networks which are not bound by the cumbersome consensus-building necessary to the national institutions. Where national pressure is limited or has waned, these network structures may compensate.

3. Effects of global environmental policy

3.1. Global convergence of national environmental policy patterns

The result of the globalisation of environmental policy is a rapid international *policy convergence* independent of differences in national policy styles. The countries we studied show an increasing similarity in environmental institutions, laws and strategies, and provide evidence of global policy-learning (Jänicke/Weidner 1997). Even the change in the predominant policy pattern is running parallel in the majority of countries. Initially, government-imposed, high-chimney and end-of-pipe policy have dominated. The transition to gentler instruments, such as environmental taxes or information-based forms of management, takes place at the

global scale in much the same way as, for example, the introduction of cooperative long-term strategies.

It need not be further emphasised that the density of *international environmental agreements* has continually increased and contributed to policy convergence (Choucri 1994). This is true of both international environmental regulatory regimes and international standards (ISO 14000, eco-audit). It is also true of international environmental labelling, as is to be found not only in Western and Northern European countries, but also in South Korea and other newcomers among the industrial nations.

Overall, countries today differ less in their environmental policy pattern than in their capacity to effectively implement them and in the results they achieve. China and Russia have comprehensive environmental regulatory systems; their problems lie in their ability to put them to work. The international dominance of technology-intensive patterns of action in the industrial nations is a problem in the globalisation of environmental policy.

3.2. Global limits to environmental policy regression

The globalisation of environmental policy has created a situation in which it is almost impossible for any individual country to break out of the international environmental consensus. Since the Reagan Administration, the United States has rejected many international environmental agreements, but then proceeded to adopt and implement them. After strongly opposing the Basle Convention, it had to accept it in the end.

Established institutional capacities of environmental protection have been restricted only in a few cases (in the US under Reagan, in Britain under Margaret Thatcher, in Germany in the wake of reunification). However, such regressive measures again seem to be limited by international environmental policy mechanisms such as political competition in the global policy arena, international environmental reporting, or the technological image of the country.

Another consequence of the global environmental policy convergence is the drop in the number of countries which can be considered 'pollution havens'. Nigeria, generally viewed in environmental policy terms as among the worst cases, is just an interesting example. In 1988 the illegal import of toxic waste triggered a domestic media campaign which marked the beginning of the country's national environmental policy and motivated the military government to take an active role in the international prohibition of toxic waste exports from OECD nations (Jänicke/Weidner 1997).

4. The role of national and regional environmental pioneers

4.1. Pioneering national environmental policy

Innovative and pro-active national policy in the area of environmental protection is thus not only possible, rather its significance has presumably increased. Britain played an early, if somewhat low-profile, pioneering role in the 1960s with its air-quality policy (induced by London's smog problem) and relatively progressive water-protection measures. The US and Sweden set a more prominent international standard in the lead-up to the 1972 UN Stockholm Conference. In the 1970s and the early 1980s Japan assumed the role of standard-bearer in

conjunction with its leading position in the global environmental technology market. In the 1980s, following a deep recession, West Germany unexpectedly stepped to the forefront, this move coinciding with its lead as exporter of environmental protection products. The Netherlands and Denmark followed at the end of the 1980s. Both countries are viewed as models for their successful economic and employment policies as well. Meanwhile, Sweden has developed into an especially ambitious player in the area of environmental protection.

Future pioneers in environmental policy are likely to emerge from among the newly industrialised countries, particularly countries in which the environmental consequences of high economic growth coincide with the transition to innovation-oriented export strategies and with political democratisation (e.g., South Korea, Thailand). In its environmental plan of 1995, South Korea explicitly sets forth its goal of developing "from a model country of economic growth to a model country of ecologic preservation" (Ministry of Environment 1995). Here too, ambitious environmental protection efforts are intended to open an important field of export activity.

4.2. Global market integration of environmental pioneers

Smaller countries which are strongly integrated in the world market are demonstrating that the global market does not have an immobilising effect on environmental policy. Taking the introduction of national environmental planning and ecological tax reform as indicators of environmental policy innovation, the above-mentioned countries, the Netherlands, Denmark and Sweden, must currently be regarded as environmental policy pioneers. In the midst of the 1993 recession, Denmark introduced a comprehensive ecological tax reform, while Holland ratified and put into law its second National Environmental Plan (NEPP II). These actions have in no way prevented positive economic development. Unemployment in both countries has dropped by about one-third since 1993. Denmark has even achieved a budget surplus. Sweden introduced an ecological tax reform as early as 1991, followed two years later by the ambitious plan, 'Enviro 93'. Of particular note, these nations have tended since then to accelerate their ecological reform policies (Holland and Sweden announced farther-reaching measures in 1997). Finland has also introduced an ecological tax reform and a national sustainability strategy (Ministry of the Environment 1997; EEA 1996; OECD 1997a; Jänicke et al. 1997; Jänicke/Carius/Jörgens 1997). Such countries as Austria, Switzerland and, more recently, South Korea (with its detailed environmental policy and numerous environmental taxes) must be counted among the world's more proactive nations in environmental policy. All are highly integrated in the global market and dependent on export.

These small, economically open countries (see Katzenstein 1985; McCann 1995) usually also exemplify a certain parallelism between environmental and employment policy achievements (Jänicke 1990; Binder 1996).

5. The importance of ecological modernisation for international competition

5.1. Competitive advantage through proactive environmental protection -- a spreading doctrine

The thesis of the environmental policy globalization trap has been challenged by an empirically based, by now well-established, opposing thesis: proactive environmental policy gives a country first-mover advantage and functions as a kind of technological fitness training. "How an industry responds to environmental problems may, in fact, be a leading indicator of its overall competitiveness" (Porter/van der Linde 1995). Or, "...tough regulations will stimulate innovation, making firms generally fitter and more competitive" (Wallace 1995). The World Bank, too, emphasises the "market value of environmental protection" (Hettige et al. 1996: 1901). However, in the opinion of these authors, a condition for this is an intelligent, flexible and innovation-friendly pattern of environmental policy.

The rise and widespread impact of this new doctrine is an empirical fact. Many governments have incorporated this position in their official sustainability strategies, as has become usual since the UNCED Conference in Rio (1992). In many countries, sustainable development has become an important issue in innovation-oriented technology policies (OECD 1997). Some national sustainability strategies (e.g., Ireland, New Zealand) seek to use a country's 'green image' to competitive advantage in the global market.

Presumably, not all countries hold equal potential for competitive advantage through ecological modernisation. Such advantage is plausible above all for technologically highly developed national economies for which competition in the area of innovation -- in contrast to price competition -- is of great importance. An overwhelming body of empirical evidence at least suggests that an active national environmental policy has yet to be proved a serious competitive disadvantage to any country. On the contrary, there are unmistakable examples of environmental policy stimulating export success (Wallace 1995; Helm 1997; Paye 1996; OECD 1996). The problem lies in what is accessible to the process of ecological innovation and modernisation (Faucheux/O'Connor/Nicolai 1997). Not all environmental problems can be solved through a standardised technical approach. The constantly increasing rate of land use around the globe vividly illustrates this.

5.2. The role of environmental protection in international regulatory competition

Competition takes place not just in economic markets, but in the political arena as well. Similarly, pioneering achievements are to be found equally among companies as among national states, regions or cities. Accordingly, there exists a regulatory competition between countries in which environmental protection plays an important role. The claim of being a pioneering nation in environmental policy is made surprisingly often. As a rule, such a claim serves a government's domestic political agenda. Pioneering countries, however, also develop international activities which propagate their regulatory innovations, as in the cases of the United States and Sweden in the early 1970s. Under Minister Töpfer the Federal Republic of Germany was just such a dynamic force in the international environmental policy debate. Among others, Holland, Denmark and Sweden play this role today. This is not just a result of

competitive behaviour in the political arena; the pioneer has an economic interest in his stricter standards being applied across the board (Heritier et al. 1994).

Since Maastricht (1992) and Amsterdam (1997), we find in the European Union an interesting institutional support both of environmental policy innovations and their rapid dissemination. Under certain conditions it is possible to set more stringent national requirements than those of the Community (Art. 2 and 100a of the Treaty). A pioneering country in the area of environmental policy can strive for "a high level of protection and improvement of the quality of the environment," and it can expect that its pioneering solution will subsequently influence the EU policy. This can boost the nation's domestic economy, as its technology already meets the higher standards of the 'first movers'. Unfortunately, a veto right still exists in important areas such as energy, water resources, land use, and taxation.

5.3. Strongly regulated markets as environmental pace-setters

The pace of global environmental policy is determined more by highly regulated national (pioneer) markets than by countries with low standards. This is true both of the export industries in the newly industrialising nation and of the Eastern European countries, in particular those seeking admission to the EU. It is even said that the ecologically innovative position of Japan's important export industries (automobiles, electronics, machinery) "was not directly brought about by either political or societal pressure, but rather by the need to adjust to changed world market conditions and, especially, the fear of decreased competitiveness in the European market" (Foljanty-Jost 1997: 327). The fear of ecologically motivated export barriers is indeed well-founded. Examples of this include regulations on used automobiles, electronic scrap and, recently, 5-litre automobiles (which from the moment of their introduction were favoured by the German vehicle tax). South Korea views the situation thus: "Imposing regulations on technology, which are guised as measures for environmental protection yet act as trade barrier, will be the international trend. Thus, domestic environmental technologies will be enhanced in order to counteract it...Korea will...strengthen environmental policy measures...to improve the quality of the environment and competitiveness of Korean companies" (Ministry of Environment 1995: 331f).

5.4. No "race to the bottom"

There is, however, a difference between product and process standards. Product standards in advanced countries and markets seem to diffuse more easily into other countries, or at least to influence the global export industries. The situation concerning process standards seems to be more complicated. But the "race to the bottom" may not be very probable even there. Globalization of environmental policy means also a global diffusion and convergence of environmental aspirations. This is important also for process standards. A more recent World Bank study of the environmental practices of companies in Bangladesh, India, Indonesia and Thailand led to the conclusion that these nations "are fast adopting industrial pollution control standards similar to those in developed countries" (Hettige et al. 1996: 1901). The researchers stress -- beyond the size and efficiency of the companies -- the significance of "community action, or informal regulation," which they found to be less dependent on the level of development of national environmental policy than on the educational and income level of the local population.

Due to the convergence also of environmental production standards, the migration of industries between OECD nations on environmental policy grounds is improbable. For a general migration of industries away from highly developed countries to occur due to environmental protection costs, a) environmental standards would have to differ significantly from country to country; and b) the significance of environmental protection as a cost factor would have to be very high. Both of these conditions are seldom present (Jaffe et al. 1995). It is less clear why energy- and pollution-intensive industries in the basic materials sector (e.g. steel or fertilisers) have been able to maintain operations in Western Europe despite sinking demand. The persistence of these industries indicates a resistance to the environmentally desirable pressure of the global structural change (Jänicke/Binder/Mönch 1997).

6. A few conclusions

There is no question that the scope of action of the individual national state in international competition is subject to considerable constraints. But its ability to act independently of the growing consensus on the imperative to protect the environment has also decreased. Weakened national states increasingly act within networks, and in so doing regain lost influence. An international community of experts provides governmental policy players often with additional capacity. National vironmental agencies today act not only as part of the national political system, but also as components of international regulatory regimes, networks and epistemic communities.

Consequently, the globaliysation of environmental policy is forming a counterweight to the global market. This is comprised of pioneering countries (and their markets), as well as the dense network of governmental and, above all, non-governmental proponents of environmental interests.

Global environmental policy has also taken on a dynamic of its own vis-à-vis national environmental policies. An indicator of this is that even advanced countries invoke international developments and discourses as grounds for domestic environmental protection measures. The effect of the Brundtland Report on the Dutch, Canadian and Scandinavian environmental policies provides an example (Jänicke/Weidner).

Why, then, does the 'race to the bottom' among the rich nations have less significance in environmental protection than it does in wage and tax policy (if we accept the diagnoses for this area)?

- One answer to this question is that the international difference in environmental standards is less important than the discrepancy in wages. Furthermore, eco-dumping is more effectively stigmatised by global environmental policy than is wage-dumping.
- Another reason for the special status of environmental protection is its increasing connection with industrial modernisation, new markets and improved productivity. Developed nations, which must assert themselves above all in the competition to innovate, face a greater challenge here than countries primarily engaged in price competition. In the latter countries, cost differences resulting from traditional environmental protection measures have a more critical significance.

- Finally, it has been demonstrated that innovations and pioneering achievements take place not only in companies, but also -- as policy innovation -- in countries and regions. Technical environmental innovations often go back to regulative innovations. Often, both work together in a tightly interactive structure: technical advances are supported by governmental measures. There exist diverse, often hidden opportunities to exploit environmental protection as a means of supporting and protecting national industries. Fiscal and income policy hardly offer competitive advantages of this kind.

7. Restrictions

This is, of cource, a 'one-sided' counterargument to the claim of powerlessness by national environmental policymakers in the face of economic globalization. My interest lies in pointing out levers of environmental protection at the international level in particular. This is in no way the glad tidings of a solution to the environmental question through political globalization. At issue here is a type of environmental protection that has by and large proved successful only in the developed industrial nations, and there only partially; a type of environmental protection that has demonstrated severe deficits in the areas of land use, soil and groundwater pollution, biodiversity and climate protection. The growth in the capacity of global environmental policy as described here has not up to now provided a solution to the fundamental dilemma, in which the recognised environmental problems grow more rapidly than the abilities of policy to respond to them.

The question is whether the deficits and constraints of world-wide environmental protection are to be explained primarily through the global development of industrial capitalism. According to our studies, environmental protection is unsuccessful in exactly those areas which are little subject to international economic competition: energy, transportation, agriculture and the construction industry (Jänicke/Weidner 1997). The logic of national interest cartels offers the better explanation here. It is inherent to the logic of industrial power that it tends to be 'old', slowly developing, and able to survive the former phases of its innovative success -- not least with the help of the national state (1990a). Clearly, the restrictions to long-term environmental strategies continue to reside very significantly at the level of the national state. The problem here is a lack of strategic and innovative capacity.

In addition, there is an environmental protection problem faced specifically by rich countries. The most visible environmental problems and those which can be effectively politicised in the sense of the 'risk paradigm', from smog to the death of fish, have been solved to some degree. In the area of visible, direct environmental pressures, there is in the rich countries today the problem of the 'self-destroying success' of environmental policy. Successes often are interpreted as an all-clear signal. But the problems now facing us (soil, groundwater, climate, biodiversity) conform to another paradigm: *long-term degeneration*. They are not yet associated with perceivable negative experience that could be used as a policy resource. The new dangers are left much more to science to anticipate, making the setting of agendas clearly more difficult. This is a problem particularly of the rich countries.

Environmental protection's globalization trap is not so much a real danger as a suggestive formula. It is extremely attractive as an alibi for national inability to act. It seems to be the

formula of countries (and regions) that too strongly are influenced by traditional, environmental-intensive industries. And it may provide a particular competitive advantage for environmental pioneers - as far as their policies are flexible enough and compatible with the logic of market economy.

Compared with highly organised economic interests, the national state has always been a weak player. Much of what it lost through economic internationalisation it has recovered through the globalization of policy. There is no alternative to a strategy to improve global environmental governance by strengthening this tendency.

LITERATURE:

- Altvater, Elmar/Mahnkopf, Birgit 1996: Grenzen der Globalisierung. Ökonomie, Ökologie und Politik der Weltgesellschaft. Münster.
- Binder, Manfred 1996: "Mögliche Erfolgsbedingungen der Schwefeldioxidminderung im internationalen Vergleich", in: Jänicke, Martin (Hrsg.): Umweltpolitik der Industrieländer. Berlin, S. 153-201.
- Choucri, Nazli (Hrsg.) 1994: "Global Environmental Accords: Implications for Technology, Industry and International Relations", Special Issue of: Business and the Contemporary World, Vol. VI, No. 2.
- European Environmnt Agency (EEA) 1996: Environmental Taxes. Implementation and Environmental Effectiveness. Copenhagen.
- Faucheux, Sylvie/O'Connor, Martin/Nicolai, Isabelle 1997: Economic Globalisation, Competitiveness, and Environment, Paper prepared for the OECD Workshop on Economic Globalisation and Environment held at Vienne, January 30-31, 1997.
- Foljanty-Jost, Gesine 1997: Die Bedeutung Japans für die internationale Umweltpolitikforschung: vom Modell zum Auslaufmodell? In: Mez, Lutz / Weidner, Helmut (Hrsg.): Umweltpolitik und Staatsversagen. Die Berliner Schule der Umweltpolitikanalyse: Kritik, Anregungen und Perspektiven, Berlin (im Erscheinen).
- Jaffe, Adam B./Peterson, Steven/Portney, Paul R./Stavins, Robert (1995): "Environmental Regulation and the Competitiveness of U.S. Manufacturing". In: Journal of Economic Literature, Vol. 33, No. 1, 132-163.
- Hettige, Memamala/Huq, Mainul/Pargal, Sheoli/Wheeler, David 1996: Determinants of Pollution Abatement in Developing Countries: Evidence from South and Southeast Asia, in: World Development, Vo. 24, No. 12, 1891-1904.
- Jänicke, Martin 1990: "Erfolgsbedingungen von Umweltpolitik im internationalen Vergleich", Zeitschrift für Umweltpolitik und Umweltrecht, 13. Jg., S. 213-232.
- Jänicke, Martin: State Failure. Cambridge 1990.
- Jänicke, Martin/Weidner, Helmut (Hrsg.) 1997: National Environmental Policies A Comparative Study of Capacity-Building, Berlin, Heidelberg, New York etc.
- Jänicke, Martin/Mez, Lutz/Binder, Manfred/Wanke, Adreas 1997: Ökologische und wirtschaftliche Aspekte einer Energiebesteuerung im internationalen Vergleich, Forschungsstelle für Umweltpolitik/Freie Universität Berlin.
- Jänicke, Martin/Carius, Alexander/Jörgens, Helge 1997: Nationale Umweltpläne in ausgewählten Industrieländern, Berlin, Heidelberg etc.
- Jänicke, Martin/Binder, Manfred/Mönch, Harald (1997): "Dirty Industries": Patterns of Change in Industrial Countries, in: Environmental and Resource Economics. Vol. 9, No 4, 467-491.
- Katzenstein, Peter J. 1985: Small States in World Markets Industrial Policy in Europe. New York.

- Kern, Kristine 1997: Politikintegration und -innovation in der amerikanischen Umweltpolitik. Typen der Innovationsdiffusion in Mehrebenensystemen, Ms. Forschungsstelle für Umweltpolitik / Freie Universität Berlin.
- McCann, Dermont 1995: Small States, Open Markets and the Organization of Business Interests, Aldershot.
- Martin, Hans-Peter/Schumann, Harald 1996: Die Globalisierungfalle. Der Angriff auf Demokratie und Wohlstand, Reinbek bei Hamburg.
- Ministry of the Environment 1997: Environment-Based Energy Taxation in the Nordic Countries, Helsinki.
- Ministry of Environment 1995: Environmental Protection in Korea, Kwacheon.
- Narr, Wolf-Dieter/Schubert, Alexander 1994: Weltökonomie. Die Misere der Politik. Frankfurt/M.
- OECD 1996: Integrating Environment and Economy: Progress in the 1990s. Paris.
- OECD 1997: Sustainable Development. OECD Policy Approaches for the 21st. Century.
- OECD 1997a: Environmental Taxes and and Green Tax Reform, Paris.
- OECD 1997b: Globalisation and Environment. Preliminary Perspectives, Paris.
- Paye, J.-C. 1996: Investing in a Clean Environment, OECD-Observer No. 198, Februar/März 1996.
- Porter, Michael E. Porter 1991: America's Green Strategy, Scientific American, April 1991.
- Porter, Michael E. / van der Linde, C. 1995: Green and Competitive, Harvard Business Review, September-November 1995, 120-134.
- Simonis, Udo E. (Hrsg.) 1996: Weltumweltpolitik. Grundriß und Bausteine eines neuen Politikfeldes, Berlin.
- Wallace, David 1995: Environmental Policy and Industrial Innovation. Strategies in Europe, USA and Japan. London.
- Zimmermann, Monika 1997: Lokale Agenda 21, in: Aus Politik und Zeitgeschichte, Beilage zur Wochenzeitung Das Parlament v. 27. 6. 1997.
- Zürn, Michael 1996: "Globalisierung von Ökonomie und Gesellschaft", in: Fricke, Werner (Hrsg.): Jahrbuch Arbeit und Technik. Bonn.