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Environmental policy in industrial countries: The German example. Seminar on problems of environmental protection in Pakistan, January 22-24 1989, held at the Centre for Applied Economic Studies, University of Peshawar

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Environmental Policy in Industrial Countries -
The German Example

by

Udo E. Simonis

SEMINAR ON
PROBLEMS OF ENVIRONMENTAL PROTECTION IN PAKISTAN
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HELD AT THE
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Environmental Policy in Industrial Countries -
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*"Dilution is
no solution
to pollution."*

Modern saying

1. Problems of Defining Environmental Policy

Environmental policy can be defined as the sum of objectives and measures designed to regulate society's interaction with the environment as a natural system; it comprises aspects of environmental conservation, restoration, and management. Since society's long-term existence ultimately depends on the natural environment and its resources, environmental policy in principle involves all societal rules governing the use of nature by human beings.

Practice, however, does not conform to such a broad definition. Generally, only selected parts of the relations between environment and society become the subject of environmental policy. So far, environmental policy has mostly been understood as a set of media-specific policies concerning air quality, water quality, noise abatement, and waste disposal. This conventional type of environmental policy was based on the simple recognition that a number of waste products resulting from production and consumption processes are detrimental to human health. Only in recent years it has been recognized that both the efficiency of the ecological and economic systems and, ultimately, the sustainability and the acceptability of the social system are threatened.

Political reaction to this realization brought about changes during the late 1960s and the 1970s to reduce the amount and degree of harmful waste products. Contrary to original assumptions, however, discrete policy areas that control the use of resources and the corresponding technical systems -- especially those policy areas governing industry, infrastructure, technology, raw materials, energy, and agriculture -- proved to be vital factors in the relationship between en-

vironment and society. Of course, conventional media-specific environmental regulation is useful and still necessary. However, it carries the inherent risk that the measures needed may not be coordinated, that problems may be spatially shifted and/or displaced from one environmental medium to another (problem shifting; problem displacement).

A discussion on the relationship between environment and society should thus not be solely confined to the questions of conventional environmental policies as described above. A broader, more comprehensive perspective on environmental problems is needed in which the political response of the various social actors, government, industry, environmentalists, and of society as a whole, to the issue of the use of nature and of harmful waste products should become the focus of discussion.

After a decade or so of applied environmental policy, the basic lines of response to environmental problems can be pointed out. Of primary importance is the question of political response or implementation of policy, namely: how rapidly and in what way or style does such response occur and how much freedom do the various societal actors have in actively selecting existing options to deal with environmental problems?

The actual or alleged tendency to remain on more or less curative, re-active stages of response has been viewed by many critics of environmental policy as a structural deficiency of industrial society. Whether, and to what extent, processes of ecological adaptation and structural change take place depends partly on the knowledge acquired about environmental damage itself, on the availability of low emission technologies, and on the relative strength of economic and political interest groups at the time when environmental damages are assessed and the costs of response are to be distributed. Successful environmental policy, then, results in part from improved information and technology; it is, how-

ever, also determined by structural economic and social change. It may be assumed that as knowledge about the state of the environment, its trends, and its determinants increases, responses can be expected that go beyond mere reaction. Environmental policy would then progress from its curative phase (react-and-cure strategy) to a preventive one (anticipate-and-prevent strategy). It would evolve from a policy of *ex post* environmental protection into an integrated *ex ante* environmental policy, devoted to an ecologically sound development of economic and technological systems.

The concept of preventive environmental policy could, in short, be described by several basic patterns of goals and means, i.e.:

- Prevention of the spread of all harmful emissions that exceed the assimilative capacities of ecosystems through more and improved recycling, introduction of low emission technologies, and pre-emptive substitution of environmentally harmful products and production processes.
- Conservation of non-renewable resources, encouragement of the use of highly efficient renewable resources, and drastic reduction of combustion processes.
- Active management of the natural environment allowing for greater participation of hitherto underrepresented public interests in all relevant planning procedures, and aiming for a strong institutionalization of the prevention principle throughout society.

By consequence, the successful application of preventive environmental policy requires structural changes of the existing political and administrative system because it must cover a scope broader than that of conventional, media-specific environmental policy. It may be expected that preventive environmental policy is going to encounter political opposition that will attempt to restrict the scope of the policy, to de-

institutionalize parts of it, and ultimately to force it back into the limited realm of regulating immissions (effects) instead of emissions (causes). If such a tendency prevails, the largely re-active, curative environmental policy of the past would be preprogrammed for the future.

2. A General Assessment of Environmental Policy in the Federal Republic of Germany

In the mid 1980s the environmental issue has a strong basis in the West German society. By the end of 1982, the Greens were already represented in six regional parliaments, the general election of March 1983 brought them into the national parliament. Some 1,500 environmental initiatives and associations with more than 5 million members are in existence. The press activities on environmental issues have increased dramatically, reaching far beyond experts and making the environment a concept known throughout the country and an issue of day-to-day politics.

The level of environmental awareness of the population has reached a new high. According to a recent representative survey by our institute some 80 % of the general public, 80 % of the industrial managers, 93 % of the politicians and some 99 % of the environmentalists declared the state of the natural environment to be a "serious problem".

These and other indications show that, within a decade or so, environmental issues in the FRG have become a major political theme. In the first official environmental programme of 1971, the promotion of environmental awareness had been declared a goal of environmental policy. One may say that this goal has been achieved, though not only because of environmental policy, but also despite environmental policy. With regard to other goals, especially those concerning some of the environmental sectors or media, an assessment does not produce such good results. (Four of the environmental media

shall shortly be assessed below.)

Of course, successes and failures of environmental policy are not that easy to assess. This is especially so for the FRG, where there is a specific division of labour between the national and the regional level when regarding goal setting and use of measures and instruments. Fairly early in the short period of official environmental policy, which started in 1971, the thesis of "implementation shortfalls" was put forward. A discrepancy was discovered between the pretentious legal regulations and goals of national environmental policy and its practical application at the regional and local level. Recent experience indicates that there may not only be implementation shortfalls but rather "structural programme deficits", which, in a way, condition the implementation shortfalls.

Therefore, an overall assessment of environmental policy in the FRG would have to look not only for the specific weaknesses originating from the institutional relationships in a federal political system (division of labour between the various governmental levels) but also for the structural factors conditioning goal setting, legal provisions, and use of instruments - among them the role and impact of the various sectoral interests, especially those of industry and environmentalists, the role of the media, of jurisdiction (of special relevance when comparing e.g. the FRG with Japan), of international and supra-national relationships (of special relevance when e.g. considering emission control of automobiles and power plants). Such a comprehensive assessment cannot be given here. It could only be provided on the basis of several empirical case studies. However, a short overview on the successes and failures of environmental policy can be presented with regard to certain environmental media, and to the West German policy style developed on the environmental issue, including the reaction to the challenge imposed on the referred policy style by the activities of certain "environmental groups" and by "environmentalism" in general.

Since the early 1970s, environmental policy has helped to reduce problems in some sectors, while in other sectors, the problems have been aggravated. Also the improvements in environmental research, especially in monitoring techniques, disclosed problems and cause-effect-chains that were unknown so far (dioxin being just a spectacular example). In the following, an overview is presented on some selected sectors of environmental policy.

2.1 Air Pollution Problems

Since the early 1970s air pollution in West Germany decreased with regard to certain pollutants; with respects to others, the growth rate remained stable. In the early 1980s, however, some new problems appeared in full force.

A decrease in air pollution was reached with regard to

- dust emissions which decreased from 1.8 million tons in 1966 to 0.7 million tons in 1982; dust emissions from coal energy plants were even reduced to about one-third in the same period;
- carbon monoxide emissions which were lowered by about one-third;
- the lead content in the air in urban areas which was reduced by some 65 % due to the law on lead in petrol (1971);
- SO₂ emissions which decreased slightly from 3.2 to 3.0 million tons per year.

In contrast, the development of the emissions of chlorofluoromethanes was rather dissatisfactory. Local immissions (deposition) of heavy metals in several cases exceeded the safety limits. A further increase in the NO_x emissions was registered from 2 million tons (1966) to more than 3 million

tons (1982). In the early 1980s, a drastic aggravation of the problem of acid rain occurred. Damage from acid rain was registered not only for buildings, monuments, lakes and soil, but especially for the forests. An unprecedented increase of forest damage (or the dying of forests, *Waldsterben*, as it is called in German) took place, affecting in some regions more than 60 % of the forest stock. Of course, a debate started on the cause-effect-chains (NO_x or SO_2 , or Ozon, etc.) reaching an immense number of different theories. This differentiated debate by the scientists diverted, in many ways, from the necessary implementation of measures to reduce air pollutants at once. Forest damage has now become a burning issue, not only in Germany, but also in the neighbouring countries in East and West, North and South.

One main reason for the increase of NO_x since the 1970s has been the still growing number of automobiles. Because of the chosen type of optimising the engine's efficiency, and because of higher combustion temperatures, more NO_x emissions were generated. In contrast, NO_x emissions from industrial production in general have decreased.

The main opponent to environmental policy in the air pollution sector is, of course, industry. The major early success of anti air pollution policy in the FRG was the enforcement of the law on lead in gasoline (1971) which had to be enacted against strong delaying action by the respective industry. This successful strategy has to be mentioned because all other legislative measures which followed were much more of a react-and-cure type of policy. The (potentially strong) regulatory provisions of the Federal Immission Act of 1974 so far address new plants only, while for existing plants the criterion of "economic feasibility" is applied, which, in general, weakens the position of the regulatory bodies in all cases of conflict. Even the question of what is a new and what an existing plant has led to serious political debate, as in the *Buschhaus* case. Furthermore, this legislation is predominantly oriented towards immissions, leading to a high

demand for measuring, monitoring and control systems.

In this way, end-of-pipe technology is strongly promoted while integrated, low emission technology does not get the necessary incentives. These add-on solutions, typical for the air pollution sector, in general led to "problem shifting", i.e. cross-media or interregional secondary effects. The best known example for such solutions is the policy of "high smokestacks" which may reduce pollutants locally, but transfers them regionally and into other environmental media, as e.g. water and soil. While the "polluter pays principle" in the air pollution sector has at best been applied to new plants (TA-Luft, technical ordinance for clean air), the "taxpayer pays principle" here has not been applied directly. This means, that in contrast to other policy sectors (e.g. noise abatement) in the FRG there has been no direct governmental expenditure programme for anti air pollution measures in stationary sources but only direct ones (tax remissions, etc.).

Regarding mobile sources of air pollution such as the automobile, the government programme is also of an indirect type, i.e. granting tax deductions for cars with catalytic converters or low emission engines. This programme, however, has been drastically reduced through intervention by the EC, because national tax incentives for low emission automobiles are interpreted as being in contradiction to the provisions of the EC treaty.

2.2 Water Pollution Problems

In the 1970s the water laws in the FRG were drastically reshaped and - in connection with several EC directives and international conventions - led to certain improvements of the water quality:

- By 1983, some 90 % of the population were connected to waste water treatment plants; the waste water of 75 % of the population was biologically treated.
- The eutrophication of water was rapidly reduced.
- In the rivers (e.g. in the river Rhine) a certain reduction in the load of heavy metals was registered.

The efforts in this policy sector were - quite similar to the air sector - concentrated on a few especially problematic pollutants, like phosphate, heavy metals and chlorofluoromethanes. Unfortunately, however, these latter pollutants cannot be successfully reduced by biological purification plants only. They accumulate in sewage sludge which again is difficult to handle in an economically and ecologically sound way. In this sense, water pollution is still a problem despite the large amount of public investments that have directly gone into purification plants all over the country.

In addition, there has been a growing evidence for the deteriorating quality of ground water. In some regions, the ground water is severely affected by nitrates diffused by agricultural activities, by toxic heavy metals, etc. Securing good water quality has thus become more costly, and in this way creates a new awareness of the existing threats to human beings and the natural environment.

It may be of interest to make some remarks on the policy instruments used in this sector of environmental policy. Contrary to the air sector, diversified regulatory measures and diversified public investment activities go hand in hand with new economic incentives. The law on detergents (1975) provided for a continuous reduction in the use of phosphate, the last stage of which came into effect in 1984. Large sums of public investments were spent for sewage, drainage, and waste water purification plants, while so far comparatively few resources (and ideas) were spent for waste water recycling.

Again, as in the air pollution sector, the strong emphasis of policy on treating polluted water instead of reducing the entry of pollutants into the water cycle led to "problem shifting"; this cross-media effect being especially obvious as regards the use of toxic sewage sludge as manure for agricultural land.

In 1981 an economic instrument was for the first time enacted in the water sector which attracted great scientific and public attention: The Waste Water Charges Act imposes a tax on the discharge of effluents into water bodies. The assessment basis is the degree of pollution of the waste water which is measured in polluting units; the tax rate per polluting unit is progressive. It seems, however, that the expectations connected with this instrument will not be fulfilled, particularly because in the process of enacting this law the rate itself was continuously lowered, thus decreasing the incentive to take action to reduce the amount and degree of pollution of waste water. Finally, it must be said that, so far, recognition of the necessity and importance of water saving, quite contrary to energy saving, has not as yet become a widespread social activity.

2.3 Noise Pollution Problems

Regarding noise pollution in the FRG some problems have been tackled while others are still waiting to be solved:

- Noise in industry and at the work place was drastically reduced in many cases; new plants and equipment in general produce less noise than old ones.
- Particularly successful were the efforts to reduce noise from construction activities.
- The law against aircraft noise and the respective measures taken (prohibition to fly during the night; investment in

passive noise abatement measures in areas near airfields; compensation for noise pollution), action against noisy aircraft (higher landing fees), and the continuous introduction of new, less noisy aircraft produced some relief from this very special problem.

Besides these and other partial improvements the overall noise pollution, however, remained fairly unchanged because of the still increasing noise from automobile traffic. Since 1970 the number of automobiles has increased from 15 to 32 million, and road construction is still pushed despite the fact that Germany has one of the most dense and perfect road networks in Europe. As exemplified by the debate about a speed limit on the Autobahns ("*Tempo 100*"), the government appears not to be in a position to overrule the interests of the automobile industry and the automobile clubs. Even the evidence of a dramatic increase of *Waldsterben* and the pressure from the neighbouring countries who (like France and England) wanted to trade "speed limits" against "catalytic converters" (as proposed by the West German government) so far have not yet contributed to bring the speed limit proposal beyond the feasibility stage.

However, mention must be made of several interesting developments. Many West German cities are now experimenting with a speed limit ("*Tempo 30*") in built up and densely populated areas. On the Autobahns more and more car drivers voluntarily reduce speed, and, especially for local activities (travel between home and the work place; shopping) the bicycle has regained many of its former functions. With respect to the latter, some parts of West Germany now very much resemble Holland, i.e. the typically Dutch bicycle scenery.

All in all, the noise problem is still one of the public evils. Every second household feels affected by noise pollution. There are estimates that some 8 million people suffer from illnesses induced by noise pollution, such as cardiac and circulatory illnesses, nervousness, insomnia. As

with other environmental policy sectors, anti noise policy was predominantly of the react-and-cure type described above. Autobahns and highways were increasingly furnished with all kinds of (sometimes very unsightly) acoustical barriers, while the actual sources of the problem (noisy engines; high speed) were not seriously dealt with. Again, the passive noise abatement measures proved fairly costly (one cannot just put a shell around every road) and not very effective. Active noise abatement, on the other hand, did not get the necessary priority, maybe because, in order for this to be implemented, it is absolutely necessary to integrate technical innovations (like low noise emission techniques) with social innovations (the "leisurely society"). However, urban and regional planning in West Germany nowadays is much more sensitive towards environmental questions, the "ecological restructuring of the city" (*Ökologischer Stadtumbau*) has become more than just a vague idea.

2.4 Waste Material Problems

The West German waste management programme of 1975 is divided into three goal areas: improving waste treatment; increasing waste recycling; avoiding unnecessary waste generation. The respective achievements differ to a large extent.

Regarding waste treatment:

- in 1970 there were some 50,000 local "wild" refuse dumps, while in the early 1980s there were only 500 so-called "orderly" central refuse dumps left;
- for the particularly toxic wastes (so-called *Sonderabfall*) the number of special treatment plants and refuse dumps has increased from only 10 at the beginning of the 1970s to approximately 100 in the mid 1980s;

- in the same period the number of municipal incineration plants doubled from 24 to 48.

These developments in "orderly" waste treatment had to be implemented against strong interests but were facilitated via the "polluter pays principle" by collecting charges according to the amount and toxicity of the waste produced.

With regard to waste recycling some spectacular achievements were reached, too:

- Following some good marketing ideas of some experts in the field, the rate of waste glass recycling jumped from 50,000 tons in 1970 to more than 830,000 tons in 1983, arriving at about 33 % of the overall glass use. With this recycling rate, West Germany is second in Western Europe (the Netherlands being at the top with 48 %), much ahead of England with a rate of only 8 %.
- Regarding tin plate from household waste the recycled material increased threefold between 1970 and 1983.
- Also the percentage of used oil collected and processed increased quite remarkably; the percentage of mercury batteries recycled is above half of the total production.
- Recycling of plastics has increased from only 150,000 tons in 1970 to about 450,000 tons in 1983, etc.

Of course, all these developments were, to a large extent, supported by the price increases for raw materials on the world market, and also by the increased environmental awareness of the population that was successfully transformed into positive saving action. A new industry developed for processing and recycling waste, and within existing plants recycling gained ground as an environmentally necessary and in many cases economically profitable undertaking.

The other side of the coin of technocratic solutions to technological problems also became apparent: Processing and recycling of waste in some cases leads to accumulation of toxic substances which in the end must be treated specifically, thus increasing cost and producing a new quality of the problem. The diffusion of dioxin from municipal incineration plants has been a spectacular issue in the German debate, the drain of toxic waste water from refuse dumps another one. A third regionally relevant issue resulted from the disposal of dredged sludge from highly polluted river and harbour sediments.

All of these issues affected the discussion on the third main goal of waste management, i.e. avoiding waste generation from the outset. Contrary to original expectations, the amounts of waste further increased:

- household waste increased from 16 million tons in 1970 to more than 33 million tons in 1983;
- specifically toxic waste (*Sonderabfall*) increased from about 2 million tons to 4.5 million tons in the same period.

Regionally and locally this avalanche of waste has reached emergency dimensions. Cities like Hamburg and Frankfurt can neither bury nor burn all the waste they produce and are heavily dependent on the neighbouring regions for that purpose. A "waste tourism" was created leading to sometimes extraordinary patterns of conflict solving. No wonder that the packaging industry meanwhile has come under strong pressure from all sides because of their simply unnecessary or all too voluminous packages. A package tax has been proposed, but has not yet been introduced. Arrangements on stabilising the use of one-way containers (bottles) and increasing the share of returnable containers were tested but in general are far from their full potential.

Again, the developments in waste management clearly show the limits of sectoral approaches to the pollution problem. As long as ex post treatment of the by-products of the production and consumption processes dominates, and integrated low emission technologies have not yet reached full scale application, an increasing amount of waste is generated or a hazardous quality of waste is emerging.

Furthermore, new cross-media problems lie ahead. It is estimated that by the early 1990s, the successful introduction of desulphurisation devices in energy plants, now obligatory for all new plants above a certain size, will lead to volumes of gypsum approximately twice the overall demand for that material in the economy. Unfortunately, this new but unwanted by-product of successful anti air pollution policy cannot easily be used in the traditional way as it is to an extent contaminated by noxious substances and therefore needs special storing arrangements.

It may be added here that desulphurisation and denitrication devices for energy plants are also very space-intensive and just because of this reason may not be applicable in all of the existing plants, especially not in densely built-up areas. Thus, new space for storing a new kind of waste will be needed, making the waste issue probably an even more serious one in the future, especially for such a small and densely populated country as the FRG.

Finally, some waste problems do not end when refuse dumps are closed down. Out of a registered 30,000 old refuse dumps the Federal Government classifies some 1,000 to 2,000 as "being problematic" in the broad sense of the word. In everyday language old refuse dumps are therefore called "old burdens" (*Altlasten*), a synonym for intergenerational effects and conflicts. The wasteful production and consumption processes of the past thus prove to be accumulated environmental costs for which the present generation has to pay the bill. In order to not increase that bill any further, avoiding unnecessary waste generation seems to be the task of the future.

3. The Decision-Making Process in Environmental Policy in the Federal Republic of Germany

3.1 Main Elements of Policy Style

The decision-making process of environmental policy in West Germany is complicated by two factors: First, it is difficult to exactly identify the policy style in a proper sense because of structural and institutional reasons, and, second, the existence of a mass movement of politically sensitive environmentalists, environmental pressure groups and an environmental political party ("environmentalism") contrasts with the dominant role of governments in other nations.

A policy style can be detected in that a diversified policy process exists, complex and varying both within and between the various environmental media described above. Over time, and beginning in the early 1970s, there was an intention to shift policy from a predominantly reactive style to a more anticipatory one; and as far as the relationship between government and the other actors is concerned, the interdependence of state and society, and the importance of consensus in policy was always stressed. However, when looking back on some 15 years of environmental policy in the FRG, such generalisation may not hold true, and a policy style may emerge that connects both consensus-oriented and authority-oriented categories.

The policy style in environmental policy can be differentiated as follows:

- *Status preservation*, involving a policy of routine, of collaboration between insider groups and government.
- *Concertation*, characterized by the pursuit of participation and consensus through a policy of negotiation.

- *Regulation*, i.e. traditional bureaucratic legislation and implementation.
- *Imposition*, as infliction of the will of public authorities, perceiving themselves to be better informed than the public.

These individual elements of policy style may from case to case, and from time to time, dominate strongly or rather mix. Some of these elements have also been subject to change, and perhaps none has been applied strictly and satisfactorily. Still, it makes sense to think in such terms when trying to understand environmental policy.

It seems that the most vivid politicization of environmental issues in the FRG has occurred around the "imposition" style, as was accentuated with nuclear power plant siting (e.g. Brokdorf), construction of airfields (e.g. Startbahn West), highways (e.g. Rothaar-Autobahn), and waterways (e.g. Main-Donau-Kanal). Nevertheless, in many documents and declarations the preference for the "concertation" style had been emphasized. In practice the relation between intra-governmental conflict, the fragmented organisation of environmental interests, and the failure to accommodate the latter in the institutional arrangements of policy, have largely contributed to the polarization of the issue, and also to a change in the parliamentary system: the Greens emerged - an institutionalized threat to the continuation of the dominant policy style, and so far a peculiarity of the West German case.

Most certainly, this process is in part also an outcome of the vigorous legislative push in the early 1970s, that is the very success with which policy formulation was pursued, allowing the later implementation shortfalls to appear much more clearly. In this way, one might try to explain the implementation shortfalls of West German environmental policy by referring to the general "gap theory", i.e. that expectations were too high and efforts not strong enough, that

goals were rightly set but measures not enacted. But in view of so much evidence that expectations were not high enough and goals were set incorrectly or not in time (and this is true not only for the very much debated case of the dying of forests, *Waldsterben*), this theory would not suffice to explain reality. In such situations, measures taken may be drastic and high above standard but may just come too late. As a case in point, the chances for the German forests to survive seem, at least, bleak.

3.2 Short History of Environmental Policy

In the Federal Republic of Germany - as elsewhere - the new wave of environmental policy started around 1970, especially promoted by the preparations for the UN Conference on the Environment in Stockholm. The coalition government of Social Democrats (SPD) and Free Democrats (FDP) had come to power in 1969 and quickly adopted the environmental issue as part of its reformist policy package. The preferred policy approach at that time was that of a "grand coalition", a seeming consensus of interests, as was stated by the then Secretary of State in charge of environmental policy: "We have to solve existing environmental problems with industry, not without them or against them."

The government swung forcefully into action, generating progressive legislation and establishing expert committees to support the policy effort. The first federal environmental programme in 1971 was strongly based on the "polluter pays principle", modified however from the start by the criterion of "economic feasibility" (*wirtschaftliche Vertretbarkeit*). This means, though in principle the individual polluter is legally and financially responsible for the damage he produces, the argument of the economic non-feasibility of compensation may prevail in the particular case. The programme of 1971 had two parts, one containing guidelines and measures for policy advice, research and promotion of environmental awareness of

the general public, and the other comprising the actual action programme of technical environmental protection measures.

In the period to 1974 laws were passed on lead in petrol, aircraft noise, and DDT, and the Federal Immission Act came into effect. Organisational changes to integrate environmental interests into policy discussion also started in the early 1970s. In 1973, the Council of Advisors on the Environment (*Sachverständigenrat für Umweltfragen*) presented its first special report ("The Automobile and the Environment"), followed in 1974 by the first general report on "The State of the Environment". In 1974, the Federal Environmental Agency (*Umweltbundesamt*) was established.

The following year, 1975, has been identified as the first shock to the new policy, when economic interests regained priority over environmental protection. A simultaneous effort to save energy (oil price increase) and to protect the environment was not yet seen as mutually reinforcing.

Thus until around 1975 environmental policy in the FRG proceeded in the "concertation" style of "reformpolitik", when the intention of the government to give participatory status to environmentalists was still manifest in day-to-day politics and in the review procedures of draft legislation. In the mid 1970s, however, the mood changed in the wake of the oil price hike, and when the chancellorship changed hands from Willy Brandt, the reformist, to Helmut Schmidt, the pragmatist. Also the "limits to growth" debate scared industry away from concerted action (*konzertierte Aktion*) in environmental policy, and the subsequent laws on nature protection and waste water charges (1976) were conceptually good but practically lacking the necessary force. Talk on the "implementation shortfall" (*Vollzugsdefizit*) began.

The progressive approach to research and information was also not followed through. Simultaneously with this abandonment

of parts of environmental policy the nuclear energy programme was further expanded. This "razor's edge" of industrial development became the target of both the environmental protection groups and of the politicized "generation for 1968". Both began to identify a (more or less) radical potential in the ecological critique of industrial society - somehow comparable to the socialist critique of industrial society in the last century.

The early achievements in official policy formulation had in a way legitimized environmental concerns in the public eye. Political as well as legal successes of environmental interests encouraged environmentalists to further action. And the increasingly right-wing path taken by the government in pursuance of quantitative economic growth policy led many to leave the established governing consensus and to form the Green party (*Die Grünen*) in 1979. This party had its main support in thousands of citizens initiatives (*Bürgerinitiativen*), which had in turn been fostered by the so-called "social liberals" (especially in the SPD and FDP), as well as by academic activist groups.

One may thus interpret the extra-parliamentary politicization of environmental policy in the FRG as the product of two main factors: First, the guiding principles of cooperation and prevention (*Kooperations- und Vorsorgeprinzip*) seem to be compatible only when the political authority is really able and willing to apply them in the sense of a "regulatory" policy, i.e. the very policy style opposed by many environmentalists, especially the Greens. Fragmentation at government level and change in government policy priorities resulted in a lack of such authority in the mid 1970s. Second, environmental awareness of the general public was rapidly growing, but due to the lack of readily institutionalized access for pressure groups a large part of the environmental movement found itself politically "out in the cold" again. This left many of the emancipatory environmental interests outside the arena of government with little or no incentive at all to cooperate.

The spectacular emergence of the Greens put the environmental issue back on the political agenda, this time at the top.

Much of what has been said above implies that management of the environmental issue in the FRG has become especially difficult. Ironically, this is so in large part due to the emergence of the Greens as a political party, for the established parties were not only challenged by environmental ideas and political demands but also by a new competing party. It is most certainly premature to suggest that this is evidence for a major legitimacy crisis in West German politics. In contrary, one may suggest that the very emergence of an environmental party (the Greens) seems to be an indication for the fact that the political system is able to adapt to the needs of the population. Dissatisfaction with the old parties and their policies has given rise to a new party to represent those interests whose voice has not been heard or was not taken seriously.

One might qualify this assessment in the sense that the environmental issue in the FRG has been a challenge to the standard policy style. Concertation worked well during the periods of the "economic miracle" and "reformpolitik", but confrontation and polarization appeared when, because of serious environmental damages, the logic of economic growth and the associated institutional procedures were criticized. By directly challenging the policy style, the environmentalists and especially the Greens signalled that "business as usual" in policy-making is rejected. The very need for the established political parties to balance their existing interests against the environmental interests may have forced the environmentalists into the electoral arena. And the ability and flexibility of the established parties to recognize these environmental interests will decide on how long "environmentalism" is going to remain as a political party, or will retreat to the position of a general fundamental movement (or undercurrent) beyond and across traditional party lines.

As the West German trade unions are still very much productionistic (growth and industry oriented) and fairly powerful within the social democratic party (SPD), while business interests are strong within the conservative parties (CDU/CSU) and the liberal party (FDP), it is still difficult for the environmentalists to get a strong foothold in these traditional parties. However, the electoral successes of the Greens have produced countermoves by the old established parties in order to reattract the environmentalist vote. It therefore seems as if the "greening" of the established parties has begun; and so it is an open question of how long the Greens are going to stay in the political arena.

3.3 Overview on Institutional Aspects of Environmental Policy and Integration of Environmentalists

At the national level in the Federal Republic of Germany, general responsibility for media-specific environmental policy (emissions and depositions) rests with the Ministry of the Interior (BMI); there is no specific ministry for the environment. Responsibility for nature protection and the soil rests with the Ministry of Food, Agriculture and Forestry (BML). Research on environmental questions and policy draft formulation is performed by the Federal Environmental Agency (*Umweltbundesamt*), a subordinate agency of the BMI.

It is obvious that both for the BMI and the BML, environmental policy goals compete with other policy goals. During the 1970s and up to the early 1980s both ministries were headed by ministers from the liberal party (FDP), which also had charge of the Ministry of Economic Affairs (BMW). Since the change of government after 1982, the conservative party is in charge of the BMI and the BML, while the liberal party still holds the BMW. Thus, the inter-ministerial goal conflicts were always, although to a different degree, exacerbated by conflicts between the "environmental" and the "economics" ministries.

As far as formulation of substantive policy is concerned, the competence for air and water pollution policies, protection of species, waste and noise pollution lies at the national level. However, the regional states (the *Länder*) have the responsibility for the implementation of the national laws. Because of this division of labour, vertical coordination is crucial and dispute may occur, especially when national opposition parties are in government at the *Länder* level. This fragmentation of government responsibility for environmental policy in a federal system and the relatively accentuated "regulatory" and "imposition" policy styles make corridorizing difficult.

The rather complicated institutional arrangement of environmental policy in the FRG is further complemented by the role of the courts, which at different occasions but not always in a systematic manner, permitted environmental interests veto points at the level of implementation. Resort to the courts must be understood as an important aspect of the institutional set-up of environmental policy in the FRG. Where negotiation fails to secure consensus, the attempt is likely to close down the case by seeking an authoritative court decision. In this way court battles sometimes substitute for political decision-making. This "policy through the courts" has been especially pronounced in the cases of nuclear energy plant siting, highway planning, and in the case of furnishing energy plants with cleaning devices, e.g. the famous "Buschhaus case" - a newly constructed large coal firing plant not using available emission cleaning technology - which was first decided politically, then brought to the courts, and finally overruled by additional government ordinances.

Regarding the integration of environmentalism into the political decision-making process mention must finally be made of at least three environmentally concerned organisations, all of which work quite differently: the Federation of Nature and Environmental Protection (*Bund für Umwelt und Naturschutz Deutschland* - BUND), the German Nature Protection

Group (*Deutscher Naturschutz Ring* - DNR), and the Federation of Citizens Initiatives for the Environment (*Bundesverband Bürgerinitiativen Umweltschutz* - BBU). All of these are umbrella organisations, and all are of post-war origin.

The BUND was founded in 1970 and is closest to a traditional type of national environmental pressure group. It has direct interorganisational links with groups and members at the local level, such that its members can focus on local environmental problems but also can be expected to endorse and support negotiations of the organisation with the Federal government.

The DNR was founded as a result of a ministerial initiative in 1950. It is an organisation which encompasses both nature protection interests and the hunting, shooting and fishing associations. Its structure in a way precludes strong and unified pursuit of aggressive environmental policy goals and its credentials for activist environmentalists therefore are rather weak.

The BBU can closely be identified with direct action initiatives and party politics and in this way has been quite important in promoting the environmental issue and in pushing governments to take action. It adopted new environmental issues, most noticeably nuclear power and nuclear armament, but also air pollution, and of course *Waldsterben*. The BBU has contact with its member associations via dissemination of information, but cannot represent their individual interests or sanction member groups who would not agree with the bargains struck with governments. Recently, there are signs that the eminently powerful position of BBU has passed its peak.

Finally, mention should be made of the Working Group on Environmental Problems (*Arbeitsgemeinschaft für Umweltfragen* - AGU) which is composed of various interests relevant to environmental policy, including government, administration, indus-

try, the scientific community, and has close access to policy discussions on the national level.

4. Conclusions

In drawing some conclusions from the brief review of environmental policy in the Federal Republic of Germany, the most important features of the decision-making process and the factors influencing the political management of the environmental issue shall be summarized.

Generally speaking, the environmental issue was first introduced to the public in the early 1970s on governmental initiative in an activist way but at the same time in a consensus-oriented policy style. Programme formulation, improved monitoring and growing environmental awareness sensitized the public to environmental quality. Implementation of environmental policy, however, fell increasingly short of the targets set, partly because of institutional reasons, partly because of a change of priority of policy; reformist environmental policy lost ground to pragmatic industrialism, and harmony between environmental and economic policy was no longer actively pursued. As a result, environmentalism gained ground, partly in institutionalized organisations, partly as a broad social movement.

Due to rather inflexible responses by the traditional political parties, large parts of the environmental movement turned to the ballot-box and supported the alternative, Green party, an attempt to challenge dominant value positions in the parliamentary arena. From recent experience, however, the presumption of a legitimacy crisis surrounding the emergence of the Greens seems questionable, not only because of a certain plurality of policy styles in the FRG, but also because the traditional parties in the end jumped on the environmental bandwagon and started to (re-)integrate the environmental issue into their own policy programmes. The environ-

mental groups and also the mass media have always very much influenced what the actual issues are, and participated in the policy process in a number of ways and at all levels of the political system. Furthermore, the courts do play an important role in the decision-making process, "policy through the courts" being especially significant in several highly debated cases of energy and transport projects.

This complexity of the West German environmental policy process and the special institutional conditions under which policy develops at first produced a consensus seeking, "concertation style" of environmental policy. After the end of the era of rapid economic growth the approach to dealing with dissent and environmental protest was decidedly of an "imposition style", which in turn served to mobilize the Greens, and only later on changed again into a more consensus oriented policy style.

Regarding the pretentious claims for an integrative, holistic approach to environmental policy, a number of questions must be noted. Programmes have always promoted the idea of anticipating or preventing environmental problems. The practice of environmental policy, however, was predominantly a reactive and curative one. It tried to solve problems after they had occurred. Furthermore, environmental policy was very much sectorized; not only with regard to the instruments used, but also the legal foundations of action and the government institutions were very much dominated by a sectoral approach. This all too often led to "problem-shifting", i.e. to undesirable cross-media, inter-regional, and inter-generational effects: The problem is partly solved but appears in a different form, in a different sector, and at a different place and time in the environment.

It seems, therefore, that not only institutional streamlining but also new approaches to practical environmental policy in the FRG are needed. Despite all necessary further discussions the direction of such policy change is clear: It

should be towards a consensus seeking, participatory policy style and turn away from the react-and-cure towards an anticipate-and-prevent strategy. In the future, the environmental policy style and strategy may change again and thus may better recognize the fact that polarized and sectoral approaches are costly, economically and ecologically speaking, and that holistic and integrated approaches are intellectually not only more demanding, but at the same time, more rewarding.

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