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25 years of modern environmental policy in Germany: Treading a well-worn path to the top of the international field

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DISCUSSION PAPER



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**25 Years of Modern Environmental Policy in
Germany. Treading a Well-Worn Path to the
Top of the International Field.**

Helmut Weidner

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25 Years of Modern Environmental Policy in Germany. Treading a Well-Worn Path to the Top of the International Field

Summary

The development of a systematic environmental policy began in Germany over 25 years ago. In the meantime "environmental protection" has become an established area of policymaking and is still expanding. Nevertheless, state environmental policy is once again subject to severe societal pressure. On the one hand, demands are being made with great vigour that the concept of "sustainable development" be translated into tangible policies, that the ecological modernisation of the industrial society be driven forward and that the "global challenges to the environment" be dealt with quickly and effectively. On the other hand, criticism from industry is becoming louder, with accusations that environmental measures are exaggerated and inefficient, and at the same time in the social area there are increasing conflicts of distribution due to the rise of other problems (such as unemployment and cuts in the social welfare system). Against this background it is interesting to review the most important phases in the development of state environmental policy and highlight the relevant factors which contributed to it. It is then possible to identify the factors which are particularly relevant in injecting more dynamism into environmental policy and raising its efficiency. This study is intended as the first step in this direction. The main characteristics and effects of German environmental policy are identified and discussed on the basis of criteria and insights generally acknowledged by environmental policy experts.

25 Jahre moderne Umweltpolitik in der Bundesrepublik Deutschland. In alten Bahnen zu einer internationalen Spitzenstellung

Zusammenfassung

Die Entwicklung einer systematischen Umweltpolitik fand in Deutschland vor rund 25 Jahren statt. Inzwischen ist "Umweltschutz" zu einem etablierten und (immer noch) expandierenden Politikfeld geworden. Gleichwohl steht die staatliche Umweltpolitik gegenwärtig (wieder einmal) unter starkem gesellschaftlichen Druck: Zum einen wird gefordert, sie solle mit größerem Elan das Konzept "nachhaltige Entwicklung" in konkrete Politiken umsetzen, die ökologische Modernisierung der Industriegesellschaft vorantreiben und zugleich rasch und wirksam den "globalen Umweltherausforderungen" begegnen, zum anderen nimmt die Kritik aus dem Wirtschaftsbereich an überzogenen und ineffizienten Umweltpolitikmaßnahmen kräftig zu, gleichzeitig zeichnen sich im sozialen Bereich zunehmend Verteilungskonflikte durch das Ansteigen anderer Probleme (etwa Arbeitslosigkeit, Reduzierung des sozialen Sicherungsnetzes) ab. Vor diesem Hintergrund ist es von Interesse, die wichtigsten Entwicklungsphasen der staatlichen Umweltpolitik und die hierfür relevanten Faktoren aufzuzeigen, um auf dieser Grundlage die Faktoren herauszufinden, die für eine Dynamisierung und Erhöhung der Effektivität von Umweltpolitik besonders relevant sind. Die vorliegende Studie versteht sich als ein erster Schritt in diese Richtung. In ihr werden die Hauptcharakteristika und Effekte der deutschen Umweltpolitik herausgearbeitet und auf der Basis allgemeiner umweltpolitologischer Kriterien und Erkenntnisse diskutiert.

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1. Introduction

Legal regulations and government measures to protect nature and human beings against environmentally hazardous activities of commercial and industrial firms have a long tradition in Germany. They are anchored in private and public law, e.g. building, public health and sanitation, and police laws. The Water Rights Act and the Factories Act have a particularly long tradition. The various regulations enacted to prevent noxious and offensive emissions from becoming a nuisance or being prejudicial to health and property were systematised and concentrated for the first time in the Prussian Industrial Statute of 1845. At that time the main emphasis was on protecting health and property in the vicinity of the emitting premises. Increasing industrialisation gave rise to a proliferation of legal statutes and pollution-related responsibilities to be assumed by the public authorities.

However, a central agency with more comprehensive and primary responsibilities (management, implementation, control and sanctions) for environmental matters was not established. The possibilities of intervening to protect the environment were still very limited. This was also true of the rights of the public to protest. They were particularly constrained by the "toleration clause" written into the civil code, which states that an individual has to accept a certain (in practice quite considerable) degree of annoyance and disturbance in the interest of the "common good"—which was mostly interpreted as economic interests.

In the years following the 2nd World War social and economic considerations were in the forefront of political and social discussion. The legislative and administrative framework designed to protect the environment was only very partially developed in the years which followed, although in this time of the "economic miracle" considerable damage was caused to the environment, including massive pollution of water and air (Wey, 1982). In the highly industrialised, and thus heavily polluted, federal state of North Rhine-Westphalia (see Brüggemeier & Rommelspacher, 1992), the issues of damage to the environment and to health from economic activities began to be discussed in public and in politics, particularly supported by the Social Democratic Party (SPD). In 1961, Willy Brandt, the then leader of the SPD and their candidate for the position of Chancellor, said, for example: "The sky over the (River) Ruhr must become blue again." This was at a time when the national consensus was still geared to economic growth at virtually any price. Legislative and organisational measures were taken, particularly in the field of air pollution control. In 1962, the Air Quality Control Act was fundamentally modified. Only a short time later the approach of North Rhine-Westphalia was to serve as a model for Federal legislation (Dreyhaupt, Dierschke, Kropp, Prinz & Schade, 1979). Despite all the measures introduced, the regulatory approach developed in Prussian times still dominated.

It was not until the centre-left coalition came to power in 1969 (Hartkopf & Bohne, 1983) that environmental policy, responding to powerful currents in the United States, developed into an independent policy area based on a comprehensive concept of environmental protection in the sense of protecting and conserving the basic natural

means of sustaining life. By the end of their period of office, this relatively young policy area had weathered a turbulent development in which the follow-up on early legislative success had been thwarted, primarily by vested economic interests (Müller, 1986).

With the advent of the 1980s, federal environmental policy regained its momentum, which, contrary to the fears of many, was not lost again after the change of government in 1982 (when the Conservative-Liberal coalition, still in office now, came into power). For environmental policy, the late eighties became even a "heyday" of consolidation, during which the socio-economic and politico-administrative context of environmental policy generally improved. That was not all, however, for there were also breakthroughs for environmental policy in important areas, advances that eventually made Germany one of the world's leading countries in this sphere. The reunification of the two German states (Federal Republic of Germany and German Democratic Republic) in 1990, however, brought along a great new challenge for German environmental policy because of the colossal environmental damage in the former GDR. Furthermore, the prospects for a rapid and effective solution to the problem are quite bleak due to the deep economic crises which started at that time. Generally, the framework conditions for a progressive environmental policy worsened and the pressure from economic interest groups to ease environmental regulations increased. Nevertheless, up to now a massive backlash has not occurred. This is due not only to the still high degree of environmental consciousness among the general public and the existence of an environmental "watchdog" party (The Green Party) and many well-organised environmental protection organisations, but also to a substantial interest of relevant parts of industry in an ecological modernisation of the industrial structure and some specific features of the legal and institutional system in which environmental policy is embedded.

In the following paper I will give an overview of the development of environmental policy in Germany and its effects, the constitutional division of powers, and the organisation of the public administration, followed by a description and analysis of some general characteristics of the political system and the politico-administrative culture that account for the basic features of German environmental policy.

2. The Environmental Policy of the Social-Liberal Coalition in Government 1969-1982

2.1 Stimuli from Abroad

The most important stimuli for the comprehensive discussion on environmental problems in Germany came from abroad, partly from Japan (because of the pollution-related diseases) but primarily from the USA. The publications by Rachel Carson (1962), Paul and Anne Ehrlich (1970) and members of the 'Club of Rome' (especially Meadows et al., 1972) along with the legislative and institutional initiatives in the USA, especially the establishment of the Environmental Protection Agency and the Council on Environmental Quality and the enactment of the National Environment Protection

Act, generated powerful resonances in Germany (see Hartkopf & Bohne, 1983; Müller, 1986). The very words *Umweltschutz* (environmental protection) and *Umweltpolitik* (environmental policy/politics) were, in fact, translations. The activities of international organisations also stimulated discussions in Germany. Most significant were those of the Council of Europe and UNESCO. The emergence of German environmental policy can certainly not be explained by acute crises or the pressure of public opinion and environmentalist groups. A relatively high degree of sensitisation to environmental problems had, however, been reached, due to various cases of immense environmental pollution, such as fish dying in the Rhine, air pollution in industrial areas and scandals about the illegal activities of private waste disposal firms.

2.2 The Beginnings of a Modern Environmental Policy

The term of office of the Social Democrat-Liberal Coalition Government was the starting point for the development of a systematic environmental policy, i.e. the emergence of a separate programme and its establishment as an independent policy, both in organisational and institutional terms, in the political and administrative system.¹ In 1969, a coalition government of SPD (Social Democratic Party) and FDP (Free Democratic Party) came to power for the first time since the foundation of the Federal Republic. It had a small majority of eight seats over the CDU/CSU, Christian Democratic Union and the Christian Social Union (Bavaria only). Although neither the Federal election campaign of 1969 nor party programmes had paid much attention to the environment, the official Government Declaration to the *Bundestag*, or Federal Parliament, in October 1969 made the solution of environmental problems the focus of the work awaiting the Federal Government.

In the following years the task of environmental protection developed a surprising degree of dynamism, at first in the politico-administrative system, and then in society as a whole. This was surprising because there was no noticeable public demand for this nor pressure exerted by organised interest groups to which government would have had to respond. According to Müller (1986, p. 53), ". . . the view cannot be discounted that, in 1969, the initiators of this declaration were not as yet fully aware of the political implications and subsequent explosiveness of environmentalism." (This and the following translations of quotations from the German are unauthorised.)

One of the first measures taken by the Federal Government (October 1969) involved the transfer of responsibilities relating to pollution control (water, air quality, noise abatement and waste disposal), from the Ministry of Health to the Ministry of the Interior.² In the search for a name for this new department, one official, it is said, translated the term 'environmental protection' that was widely used in the USA into *Umweltschutz* (von Lersner, 1991, p. 11). In subsequent years, the Ministry of the Interior acquired further powers. In 1972, an amendment to the German Constitution (Art. 74) granted the Federal Government so-called concurrent legislative power for

¹ See the fundamental study by Müller (1986) on the environmental policy of the Social Democrat-Liberal government.

² For reasons for the choice of the Ministry of the Interior as the body with competences for the environment, see Müller, 1986, p. 55ff.

statutory regulations regarding the following areas and subjects: waste management, air pollution control, noise abatement, radiological protection, and criminal law relating to environmental protection matters. Concurrent legislative power (i.e. power shared between the Federal Government and the states) means that the Federal Government has the right to issue detailed regulations; in this case, federal law supersedes state law. In the areas of water management, regional planning, nature conservation, and landscape preservation the Federal Government is authorised (under Art. 75 of the constitution) to issue only so-called framework laws as the basis for detailed and specific legislation to be drawn up by the states.

Modelled on the US Council of Environmental Quality, the *Rat von Sachverständigen für Umweltfragen*—Council of Environmental Experts—was set up in 1971 to provide advice on environmental matters. This council, made up of independent social scientists and natural scientists (mainly university professors), published its first report (on the automobile and the environment) as early as 1972. The first comprehensive report on the environment came out in 1974. To provide the Federal Ministry of the Interior (later the Ministry of the Environment) with technical, scientific and administrative support, the *Umweltbundesamt*—Federal Environment Agency—was established in Berlin in 1974, modelled on the US Environmental Protection Agency, but with very different functions and responsibilities.

The dynamics released by the environmental debate inside government (in relation to organisational, programmatic and legislative drafting activities) was considerable and is partly explained by the excellent opportunity this offered to the first minister in charge of environmental protection, Federal Minister of the Interior Hans Dietrich Genscher (FDP), who could assume a reforming image for his small party. In his activities he could rely on strong support not only from the officials in his environment division, but also from influential members of the SPD, including the chancellor Willy Brandt (see Müller, 1986, p. 58f). Another condition favouring a rapid political career for 'the environment' was the general political climate which prevailed in the Federal Republic towards the end of the 1960s. In the knowledge-creating system, as well as in society at large, the opinions had come to be widely accepted that market corrections were needed, that correction could be achieved through planning mechanisms, and that practical implementation by government and administration was achievable. Optimism about the opportunities state intervention offered for the transformation of society (towards greater social equity and participatory democracy) was so strong that this early period has been described as one of 'planning and reform euphoria'.

As early as September 1970 a comprehensive crash programme for environmental protection was adopted. This announced measures for clean air, noise abatement, water pollution control, waste disposal, chemicals and nature and landscape protection. One year later, in September 1971, the Federal Government tabled its Environment Programme³ for the coming years:

³ See Bundesregierung, 1971, also Krusewitz, 1981. Regarding the development of the programme, see Küppers, Lundgreen & Weingart, 1978.

With this programme, environmental policy becomes a separate public duty and the same status is therefore accorded to the protection of the natural foundations of life as is to other major public responsibilities, such as social security, education, internal security and defence (Bundesminister des Innern, 1984/85², p. 10).

In the Environment Programme of 1971 general guidelines for environmental policy were set down which were most progressive for that time. They included the following points⁴:

1. Environmental policy is the totality of all measures which are necessary:
 - to safeguard for humanity the environment needed for good human health and a dignified existence;
 - to protect soil, air and water, fauna and flora from the deleterious effects of human interference;
2. The costs arising from environmental damage must in principle be borne by the agent causing the damage (polluter-pays principle);
3. The capacity of the national economy will not be over-stretched by the practical implementation of the environment programme. Environmental protection shall be supported by financial and fiscal measures, as well as measures applied to the infrastructure.
4. Technology decisively determines the state of the environment. Technological progress must take place in an environmentally benign or caring manner. The promotion of technology which in its application has little or no negative environmental impacts is one objective of this programme. . . .
5. Environmental protection concerns every citizen. The Federal Government considers the promotion of environmental awareness to be an essential component of its environmental policy
6. Environmental protection requires international co-operation. The Federal Government is prepared for this in all fields and promotes international agreements.

In his introduction to this programme, Minister of the Interior Genscher pointed out that environmental protection "must not only react to damage which has already occurred, but must prevent the development of future damage through precaution and planning". The text further states that:

The success of federal environmental policy depends on whether the practical experience of the administration, industry and science is intensively applied in the earliest stages of planning. This applies particularly to legal regulations issued by the Federal Government which have to be implemented by the administrative bodies of the states and local authorities and which have a significant impact on the economy (Bundesregierung, 1971, p. 8).

From these and other deliberations in the environment programme, three principles were deduced which were to act as central guidelines for environmental policy: the principles of precaution (*Vorsorgeprinzip*; it could also be translated as "foresight"; "prevention" is also used but has a narrower meaning), co-operation (*Kooperationsprinzip*) and the polluter-pays principle (literally: the principle of causation = *Verursacherprinzip*). Precaution only attained a commanding position among the three

⁴ See "Zusammenfassende Thesen des Umweltprogramms" (Summarising theses of the Environment Programme) in Bundesregierung, 1971.

founding principles in 1976 when the environment programme was updated. According to Zimmermann (1990, p. 5), formulations about the principle of precaution made at that time, while in essence identical to those of 1971, were nevertheless more differentiated with respect to its objectives. These include safeguarding human health and welfare, maintaining the health and productivity of natural ecosystems, assurance of long-term security for the progress of civilisation and of the productivity of the national economy, avoidance of damage to cultural and economic goods and conservation of landscapes, flora and fauna.

By then, at the very latest, the principle of precaution had come to play a dominant role in political statements and is always listed as the first of the three principles.

Operationalized objectives, however, can hardly be detected in the programme. Apart from announcing various legislative proposals, concrete, testable aims (linked to timetables) were mentioned only for air and water pollution control.

In general, and when viewed in an international comparative context, the above environment programme was progressive and demanding for the time. The question of why the federal ministry responsible, the Ministry of the Interior, succeeded in obtaining support for it from the entire Federal Government without major conflicts⁵, has been answered by Müller (1989, pp. 5-6) as follows:

This became possible on the most diverse grounds: the people put in charge of writing the programme, or rather those who were released from other work to do so, perceived the task as an intellectual challenge. They had studied the American draft programme largely without being influenced by tactical considerations arising from implementation problems or restraints on their own competence and capacities. Despite many pressures to create consensus on matters of detail, they were able to operate in the 'intellectually open atmosphere' which the support of the Minister of the Interior had ensured for them. Political back-up also came from the Chancellor's Office. In his second major Government policy statement of January 1973, Chancellor Willy Brandt further raised the status of environmental protection by attributing constitutional status to the 'right to an environment worthy of human dignity'. The reformers also benefited from the general reformist climate associated with the new government. In the face of the wholesale change in official policies, the defenders of established policy areas and interests inside the 'state apparatus' adopted a wait-and-see attitude. Representatives of industry had been able to bring their particular interests to bear during the work done by various groups set up to draft the environment programme and had therefore joined in the decision-making process as it related to the comprehensive description of problems and their proposed solutions (e.g. in the report on 'Maintenance of Clean Air').

Given these favourable conditions at the outset, several pieces of federal legislation concerned with pollution control were quickly passed between 1971 and 1974, such as the Air Traffic Noise Act (1971), the Leaded Petrol Act (1972), the Waste Disposal Act (1972), the DDT Act (1972), the Federal Air Quality Protection Act (1974) and the Act on Environmental Statistics (1974), as well as a number of regulations, administrative directives such as the Technical Instruction for Maintenance of Air Purity of 1974, and decrees (e.g. the decree establishing a Council Environmental Experts,

⁵ In several areas the Ministry of Interior did, however, meet resistance, see Müller, 1986, p. 56ff.

1971). Müller (1989, p.23; see also Malunat, 1994, p. 4f.) has described the period from 1969 to 1974 as a phase of 'active policy design' during which environmental policy was largely decided by the administration. It should not be forgotten, however, that the general public responded quickly and sympathetically (Müller, 1989, p. 7; Margedant, 1987, p. 19ff.), and it should also be added that the structure and procedures of the environmental policy system were decisively shaped by administrators with a legal background.

2.3 A Period of Stagnation

Between 1974 and 1978 the societal context altered to the disadvantage of environmental protection (Delwaide, 1993) to such a degree that official environmental policy began to stagnate and was confined largely to defending past achievements. Primary responsibility for this lay with the sharp rise in oil prices in 1974/75 and the subsequent world recession. Generally speaking, the years after 1974 were characterised by an extraordinarily high level of conflict. The following issues in the field of the environment were the primary cause of this:

The nuclear energy question (leading to a large, and partly militant, anti-nuclear movement) was able to mobilise tens of thousands of people for mass rallies against the construction of nuclear power plants, and—in a broader perspective—against the feared creation of a *nuclear state*, i.e. a state characterised by unlimited economic growth at the expense of the natural environment and present and future generations; perfection of "state surveillance"; dismantling of civil rights and democratic principles. Later the issue of deployment of medium-range nuclear missiles (which led to the emergence of a new peace movement) arose. The two movements had strong personal and ideological overlaps and provided the primary source feeding the environmental movement and then the Green Parties.

In addition to this the political climate was greatly heated up by the terrorist activities of the Red Army Faction, which resulted in an increase in the advocates of law and order both in society at large and in the important social institutions, including the SPD which had previously been able to integrate relevant parts of the left-wing movement. This development reached its climax due to escalation of terrorism in 1977 which became known as the "German Autumn."

Under pressure from industrial and trade union interests it was decided in June 1975, at a meeting closed to the public and organised by the Chancellor's Office, that environmental demands were to be relaxed in the interest of economic development (Müller, 1986, p. 97ff.). At this conference (the Gymnich Conference, named after the place where it was held) representatives from industry and the trade unions severely criticised the stringency of environmental regulations. This, it was felt, had already prevented investments to the order of 50 billion DM and jeopardised jobs, especially in the energy supply industry (because of air pollution controls). The 'anti-environment' coalition, of which the Federal Ministry of the Economy was a member, initially succeeded in its aims, not least because it had the support of the new Chancellor, Helmut Schmidt, who had come to office in 1974.

However, in retrospect not all these demands were met, thanks to grass roots developments and the skilful tactics deployed by senior public officials in the Ministry of the Interior in defence of the environment. As the emerging Green movement became increasingly better organised, it reacted vigorously to steps it perceived as environmentally retrograde (Müller 1986: 97ff.). "Of ten thousands of pressure groups—the number fluctuated between 15,000 and 50,000—about 40 to 45 per cent were concerned with the environment by 1975/76; the ecological commitment of all these groups generally grew in strength after the mid-1970s" (Margedant, 1987, p. 24). In 1972 these groups established a national umbrella organisation, the Federal Association of Pressure Groups for the Environment (Bundesverband Bürgerinitiativen Umwelt), and it is said that its foundation was supported by high-ranking officials in the Ministry of the Interior who wanted to increase their public support ("constituency-creating") (Hartkopf, 1986).

2.4 The Return of Dynamics

In spite of continuing unfavourable conditions the environment grew in political and societal significance. That section of society which demanded more ambitious environmental measures regardless of the economic recession continued to expand. Initially, and nuclear risks apart, environmental concerns and associated conflicts related to the dangers arising in the chemical industry. Later, the phenomenon of dying forests (*Waldsterben*) and—connected with it—clean air policy became environmental issue number one (Boehmer-Christiansen & Skea 1991; Gärtner, 1984; Margedant, 1987; Malunat, 1994.; Weidner 1986).

In parallel with the growing politicization of the environmental theme in society, the organisational basis for the protection of environmental interests was improving: the so-called new social movements turned increasingly towards environmental issues, the number of environmentally oriented pressure groups grew steadily and the first 'Green Parties' were set up. By 1978 the umbrella organisation of the pressure groups, the BBU, brought together about 1,000 groups with some 1.5 million members. As early as 1977, green groups participated (as "green lists") in elections to the district parliaments under the slogan of environmental protection; in the European elections of 1979, several such groups put up candidates with a 'green' label, attracting almost one million votes (Brand, Büsser & Rucht, 1986; Brun, 1978; Ellwein, Leonhard and Schmidt, 1981, 1983; Frankland & Schoonmaker, 1992; Guggenberger, 1980; Hrbek, 1988; Langguth, 1984; Linse, 1986; Leonhard, 1986; Poguntke, 1992, 1993; Raschke, 1993; Roth & Rucht, 1987; Rucht, 1980).

Because the established parties were often considered unreliable in bringing sufficient pressure to bear on the politico-administrative system, the newly founded Green Parties were increasingly successful electorally at both local and regional level. While the Green Parties failed in 1978 in the states of Lower Saxony and Hamburg with 3.9 per cent and 4.5 per cent of votes respectively, after 1979 they were able to demonstrate increasing electoral support. For the first time in German history, a representative of a Green Party (Bremen Green List) entered the Parliament of the City State of Bremen in 1979; Baden-Württemberg followed in 1980, Berlin in 1981, Lower Saxony, Hamburg and Hesse in 1982. Before the Social Democrat-Liberal coalition collapsed towards the end of 1982, the Greens were represented in six regional parliaments (Müller, 1986, p. 117). In the Federal election of 1983 the Greens reached 5.6 per cent (27 seats) and hence entered the *Bundestag*; in 1980 they had received only 1.5 per cent.

The basic reasons for the successful development of Green Parties during that period are summarised by Poguntke (1992, p. 338) as follows:

"There is no question that the citizens' initiatives and the ecology and peace movements played a decisive role in supporting the nascent Greens, both organisationally and by providing them with experienced personnel. There is also widespread consensus in the literature that the actual reason for the foundation of a Green Party . . . was the deficient responsiveness of the German party system to those political problems which were particularly relevant for potential Green voters . . . environmental protection and ecological politics, nuclear energy, disarmament, self-determination and liberal freedoms, women's rights."

The combination of growing social protest in response to an

Table 1: Results of the Green Parties in Elections at State and Federal Level 1978-84

State Elections	Date	Per cent
Baden-Württemberg	16.03.1980	5.3
	25.04.1984	8.0
Bavaria	10.10.1982	4.6
Berlin	18.03.1977	3.7
	10.05.1981	7.2
Bremen	07.10.1979	5.1
	25.09.1983	5.4
Hamburg	04.06.1978	4.6
	06.06.1982	7.7
	19.12.1982	6.8
Hesse	26.09.1982	8.0
	25.09.1983	5.9
Lower Saxony	04.06.1978	3.9
	21.03.1982	6.5
North Rhine-Westphalia	11.05.1980	3.0
Rhineland-Palatinate	06.03.1983	3.6
Saarland	27.04.1980	2.9
Schleswig-Holstein	29.04.1980	2.4
	13.03.1983	3.6
Federal Elections	05.10.1980	1.5
	06.03.1983	5.6
European Elections	10.06.1979	3.2
	17.06.1984	8.2

Sources: Raschke, 1993, p. 928; Poguntke, 1993, p. 46

environmental policy assessed as being too lenient, and the provocation the 'green' response presented to the established parties themselves, ensured that the latter began to concern themselves much more intensively with this new policy area. Business, industry and trade union organisations weakened in their opposition to environmental goals. This happened not least because these vested interests themselves changed their own assessment of the tension between ecology and the economy. Whilst they previously argued almost without reservation that pollution control measures would have negative impacts on economic growth and employment, they now came to recognise that such measures can constitute an important factor in improving both the economic climate and the structure of the economy. All this merely corresponded to scientific findings which had been ignored for some time (Wicke, 1989). And finally, the new assessment of the situation was also supported by the emergence of a new branch of economic activity, the environmental protection industry (Meissner & Hödl, 1978; Sprenger, 1979), also labelled the eco-industrial complex. The general change of perception by industrial and trade union bodies did not, of course, prevent specific sectors from strongly opposing a forced environmental policy, especially those which were undergoing some form of crisis or were particularly affected, such as the iron and steel industry, mining, energy utilities and the motor industry.

Nevertheless, until 1978 increasing resonance with the environment could still be explained by the favourable economic climate. By 1980, however, this had ceased to be possible. There had been a serious downturn in the business cycle and unemployment figures were soaring. Yet the environment continued to gain popularity in society. Investigations covering the development of 'satisfaction with environmental policy' for the period 1978-1988 show that the public expressed 'extreme discontent' between 1978 and 1984. In no other policy area investigated was the discontent so noticeable (Landua, 1989).

The political parties and bodies responsible for environmental protection in the politico-administrative system reacted to this climate of opinion by paying more attention to the environment. This re-orientation of public environmental policy began to take shape around 1980, without of course implying immediate translation of proposals, programmes and laws into practice.⁶ It took place because of growing societal pressure and, in particular, the emergence of green political parties.

The green challenge to the established parties encouraged politicians in government to initiate some environmental measures which went far beyond what the responsible administrative bodies in the senior civil service had considered achievable. These senior civil servants had previously expected ". . . serious problems of acceptance not only inside Federal Government but also during consultations with representatives of major interest groups. They had feared that they could not successfully launch a new policy which would lead to major conflicts" (Müller, 1989, pp. 12-13).

In this respect, and in contrast to an earlier period, the federal administration responsible for environmental policy now applied the brakes to public environmental

⁶ For the discussion of implementation deficits (*Vollzugsdefizite*) in German environmental policy, see Rat von Sachverständigen für Umweltfragen (SRU), 1978; Mayntz, Derlien, Bohne, Hesse, Hücke & Müller, 1978.

policy. This was particularly effective for the regulation of vehicle emissions and large combustion plants, and the development of an ecological action programme. During the bureaucratic decision-making process these initiatives succeeded in weakening the more ambitious ideas of politicians, producing measures which were considered achievable or realistic. It should be taken into account, however, that reservations by the administration about the outcome of a highly conflictual strategy were not unfounded. Considerable resistance continued within Government itself, coming largely from powerful ministries opposed to environmental initiatives. In addition, in 1982 very strong tensions about the future course of environmental policy had developed between the coalition partners. This in turn created uncertainty for the strategic planners in the administration who therefore came to prefer a more cautious approach.

Some of the final bursts of energy from the Social Democrat-Liberal government coalition were aimed at improving environmental protection. As late as September 1, 1982, shortly before the change of government, it made far-reaching decisions on the future design of environmental policy.⁷ This action, however, could not prevent the coalition's internal demise when the Liberals joined the Christian Democrats with the subsequent shift of power to a Conservative-Liberal government coalition under Chancellor Helmut Kohl. As an opposition party the Social Democratic leaders then became more sensitive to ecological issues than ever before.

2.5 Summing up

A systematic public environmental policy was established almost without conflict towards the end of the 1960s and the early 1970s by the Social Democrat-Liberal government that had taken office in 1969. It had been formulated without much pressure from society, without many major environmental catastrophes or even programmatic initiatives by political parties. The least one could say is that the government was reinforcing a socio-political trend (i.e. towards a basic reform of societal structures) that had already emerged. Central actors were a small number of politicians and senior officials who, stimulated by events in the United States, and some other countries, and by a generally reformist political climate, adopted this theme ("inside-initiative model"). However, they did so without initially securing the organisational requirements and resources needed for translating very ambitious policies into practice.

Because environmental policy-making in its initial phase had hardly aroused controversy, Government was able to develop an ambitious environment programme and even ensure the implementation of some parts through legislation. With the worsening economic climate, however, official policy was increasingly forced onto the defensive by growing industrial and trade union opposition. In the ensuing controversies, the environment lobby inside Government could now no longer rely on serious support from the established parties which had ceased to attach much importance to the subject. The subsequent stagnation of environmental policy in turn produced growing dissent in society. It did so because threats to the 'natural life-support system' in conjunc-

⁷ The environmental decisions of the Social Democrat-Liberal government are reproduced and commented on in *Umwelt* (BfM) 91, September 14, 1982.

tion with the nuclear energy question had, during the 1970s, become a priority issue for the public; an issue which was proving particularly attractive to the media. The environmental diffidence of the old parties led to the establishment of rival Green parties which quickly enjoyed electoral success at the regional and local level. The growing success of the green-alternative parties in local and state elections at the end of the 1970s, the founding of a federal Green Party (DIE GRÜNEN) combined with widespread protests and local resistance movements to industrial and infrastructure developments, forced the established parties and official environmental protection authorities to attach a good deal more importance to the environment.

However, the established, traditional parties largely failed to recapture the environment for their agenda. The attempts of some politicians to re-conquer with new initiatives a policy field they had once coveted similarly failed. Opposition to effective measures within Government itself remained very strong and voters sensitive to the environment became less and less convinced by increasingly symbolic actions, such as the issuing of tough laws which were not implemented. Many of these voters therefore deserted the established parties and turned to the Green parties which had been set up towards the end of the 1970s.

The general environmental situation at the end of the Social Democrat-Liberal period in office was characterised by support among a considerable section of society for more stringent environmental legislation than even that proposed by Government. At the same time, the credibility of politicians as persons interested in the environment and competent to solve problems, the trustworthiness of administrative bodies and even faith in the objectivity of institutional science declined significantly. Negative experiences with the decision-making mechanisms relating to the control of the chemical industry, air pollution control and energy policy contributed greatly to this general loss of credibility. More and more people had become convinced that the measures which were ecologically required, as well as technically and economically feasible, were not being implemented (see Hucke, 1990).

Against this background, the environmental baseline for the Conservative-Liberal Government (which came to power in the autumn of 1982) was particularly unfavourable. Even more so than the previous coalition, it was considered to represent economic rather than ecological interests.

3. The Environmental Policy of the Conservative-Liberal Government

3.1 A Dynamic Beginning: Enforcement is Given Priority over Programme Formulation

The resolutions, along with environmental bills and draft ordinances that had been completed earlier by the Social Democrat-Liberal government but shelved, benefited the Conservative-Liberal government coalition that took over in October 1982. Friedrich Zimmermann, the new federal Minister of the Interior, who became responsible for environmental protection, largely adopted the priorities of the previous administra-

tion and picked up where it had left off in its preliminary programme formulation and legal work. Surprising his many critics and overriding the sometimes strong resistance of the affected industrial circles, he quickly pushed through some strict environmental regulations.

This is especially true of his clean air policy, which was controversial at that time because of the rapid increase in forest damage (the "dying forests"). The completion of the draft for the Ordinance on Large Combustion Plants was one of the first official acts of the new Minister of the Interior. The ordinance, on which the previous administration had laboured for nearly five years, was enacted by him after approximately nine months in office. It contained Europe's strictest regulations for limiting the emission of air pollutants from large industrial plants and became a model for other countries (Mez, 1995). The Minister of the Interior thereby achieved his first impressive success, for he was the first person in the history of clean air policy to overcome (at least partly) the influential power block of the utilities companies, which some observers also called a "state within a state."

The onset of forward-looking clean air policy at the national level accelerated the West German government's international activities. They were not only rational from a global perspective but henceforth also coincided with the country's own interests. With the intention of spurring internationally co-ordinated measures against acid rain and long-range currents of air pollutants, the German government held a multilateral environmental conference in Munich in June 1984, which was attended by thirty-one countries from East and West. The conference and other activities that followed helped to move international clean air policy into more progressive channels (Weidner, 1989a).

The German government has also set the pace more and more frequently at the level of the European Community (EC). Germany's unanticipated attempt in July 1983 to have the US ceilings for automobile exhaust emissions adopted as an E.C. directive caused a major political stir. The initiative was blocked at first by the resistance of France, Great Britain, and Italy (see Boehmer-Christiansen & Weidner, 1992; Holzinger, 1995). This initial failure may have been partly due to the contradictory strategy of the West German government, which was not prepared to set a motorway speed limit within the country, a measure expected to reduce pollution from exhaust fumes. Indeed, the Federal Republic of Germany is still the world's only industrialised country without a general speed limit on its motorways. (And the Federal government has again—in March 1994—announced that it will not introduce such a general speed limit even if the European Union—the former E.C.—issues a directive to make it mandatory. In that case it will make recourse to the European Court for a decision.)

This equivocation raised the suspicion that the government was talking ecology but thinking primarily in terms of the automobile industry's economic interests. The comparatively favourable economic situation enjoyed by the German automobile manufacturers and the specific product structure in Germany made such scepticism plausible, yet it was overlooked that the German automobile manufacturers, too, had been startled by Minister Zimmermann's initiative and that most of them were opposed to it. In the Federal Republic of Germany, however, the Minister of the Interior established his

reputation for not yielding even to powerful business interests when it was a matter of acting on environmental concerns. Some observers explain the minister's commitment by strong self-interest because his constituency was located in Bavaria, one of the federal states where forests suffer particularly heavily from air pollution. Therefore, the influential Bavarian forest and agriculture lobby organisations exerted strong pressure on the minister and his local party organisation to strive for stricter air pollution control measures. Furthermore, the Bavarian state government announced its intention to mobilise the *Bundesrat* (Upper House of the Federal Parliament) to work towards the same goal.

In other domains, too, the Federal Government aspired to tighten E.C. environmental directives (Reiche, 1987). In that sense, the Conservative-Liberal government moved relatively quickly after taking office to adopt the difficult role of taking the lead in the obstacle course of supranational environmental policy, concentrating mostly on spheres in which the pressure for environmental policy action was very high in the Federal Republic of Germany. For the most part, then, the development of environmental policy at national level guided that at international level. This relationship would subsequently reverse to some extent, especially in the 1990s when environmental policy once more came under pressure because of the worsening economic situation.

3.2 The Chernobyl Effect: The Establishment of the Federal Ministry for the Environment

Whereas measures in the sphere of clean air policy were largely oriented to actual results, those in other areas of environmental protection continued to adhere more to the conventional approach of relying on symbolic and regulatory environmental policy, in which legal regulations are not tied to a verifiable implementation schedule. Accordingly, improvements in environmental quality in those areas were only minimal. In fact, in some of them considerable deterioration was recorded.

Although Minister of the Interior Zimmermann indisputably did well in individual spheres, attacks on his environmental policy grew steadily. The slow pace of negotiations at E.C. level on permissible levels of automobile exhaust was henceforth blamed on him, too—in part unfairly, given the stiff resistance of other E.C. member countries. Of course, the minister cast a shadow on himself by publicly glossing over the meagre results of negotiations.

The loss of confidence in the Minister of the Interior's competence in matters of environmental policy climaxed shortly after the nuclear catastrophe in Chernobyl in April 1986. Zimmermann hesitated to act in the subsequent period and attempted to allay the public's widespread concern about the rise in radiation and to make excuses for the serious deficiencies in the planning and organisation of protection against radiation and catastrophes which became evident (see Drexler & Czada, 1987; Peters et al., 1987). This response led to sharp criticism of the Minister of the Interior in particular and the organisation of environmental protection in general.

In this situation the Federal Government made a quick, politically very astute decision. On June 5, 1986, the Federal Chancellor issued an organisational decree estab-

lishing the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Walter Wallmann, a politician with little experience in environmental issues, was appointed as the first full-time Minister of the Environment in the Federal Republic of Germany. Environmental protection responsibilities previously distributed across various federal ministries were now brought under the new ministry (Mertens & Müller, 1987).

The concentration of environmental competencies in a special Ministry of the Environment had long been called for by different experts and organisations. This integration of responsibilities was expected to increase the viability of environmental concerns in the government's internal decision-making process and to favour cross-sectional policy approaches. By contrast, others feared that a newly established ministry focusing solely on concerns about environmental protection would be even less able to stand up against "strong ministries" (such as those of the economy, transport and agriculture) and groups whose interests impair the environment. They therefore argued that environmental responsibilities ought to be assigned to the Ministry of the Interior.⁸

Such discussion for and against did not play a central role in the organisational reform of 1986, however. What mattered "was ultimately no doubt the forthcoming elections to the state assembly in Lower Saxony and the endeavour to improve the election prospects of the CDU" (Pehle, 1988, p. 186; CDU = Christian Democratic Union, Germany's leading Conservative party). After all, some of the authority, especially that important for designing and establishing preventive environmental policy, remained in other ministries. Moreover, the Ministry of the Environment is one of the small ministries in terms of its staffing and the size of its budget which accounted for about 0.3 per cent of the 1993 federal budget. For 1994 the budget was raised by around 7 per cent (to a total of 1.33 billion DM), but this increase is largely due to expenditure for the Federal Radiation Protection Agency. There were hefty cuts in some important items of the budget, particularly funding for research and development in the field of the environment.

As a result of the catastrophe in Chernobyl, the initial main thrust of the activity pursued by the Federal Minister of the Environment was in the area of nuclear energy, primarily radiological protection. One of the minister's first initiatives was to draw up a bill for preventive radiation protection (1986). The corresponding activities were criticised by the opposition parties, scientists, and, especially, environmental protection organisations. They saw these efforts as an attempt to ensure the political future of nuclear energy production. Further problems that arose during Minister Wallmann's term of office accelerated the decline of his reputation as Minister of the Environment.

Nevertheless, it can be assumed that the reorganisation of the government's environmental policy after Chernobyl benefited the Conservative-Liberal coalition. The elections for the state assembly in Lower Saxony gave it a slight majority. It clearly emerged as the victor in the election campaign for the *Bundestag* in January 1987 and, with Wallmann as the top candidate, the CDU/FDP coalition likewise won the major-

⁸ For a record of the various views, see Hartkopf & Bohne, 1983; Müller, 1986; Pehle, 1988.

ity of the votes in the elections for the state assembly in Hesse in April 1987, dislodging the state government—a coalition between the SPD and the Greens.

In May 1987 Federal Minister Wallmann was succeeded by Klaus Töpfer, a professor for regional planning, a former member of the Council of Environmental Experts (SRU), and former Minister of the Environment in Rhineland-Palatinate. As Minister of the Environment, Professor Töpfer was very active and oriented to the media from the outset. His combative way of identifying environmental problems and his ability to develop convincing solutions to problems at first glance rapidly gained him respect among experts and the general public. The Federal Republic of Germany, with one of the world's environmentally most knowledgeable and involved populations, seemed to have got the environment minister she deserved.

Relatively soon, however, his aggressive public relations policy lost its persuasiveness and effectiveness, since the environmental effects achieved were rather small. For example, the minister portrayed the EC's inadequate decisions on the automobile exhaust policy as a necessary compromise, thereby failing to exploit the opportunity to work together with other member countries to reach a better result. After several experts had already declared that the battle to introduce economic instruments had already been lost, a debate about "eco-taxes" and environmental charges literally exploded in the summer of 1989.

The Minister of the Environment stepped into the fray at once, declaring systems for imposing environmental charges a must for rational environmental policy. The motive for this was evidently the forthcoming elections for the state assembly scheduled for January 1990 in the Saar. The Saar's minister president, Oskar Lafontaine (SPD), had captured the public's imagination by presenting the concept of an energy tax, forcing a response from Environment Minister Töpfer, who was running as the Christian Democratic Union's top candidate in the elections for the state assembly. After the election—which Töpfer lost—the issue of economic incentives was played down by the Federal government and up to now only minor new environmental charges have been introduced (e.g. charges on non-deposit bottles). On the other hand existing economic instruments (such as the sewage charge) were weakened.

Perhaps it was electioneering that made the Minister of the Environment temporarily resort with increased frequency to elements of symbolic environmental policy. It should not be ignored, however, that on balance he is considered both nationally and internationally to be a competent Minister of the Environment, that significant breakthroughs have been made during his tenure (see below) and that the trend toward more enlightened international environmental policy has been mounting. Some of the more important goals spelled out in the government's declaration of March 18, 1987, were also met, such as the development of a concept for protecting the North Sea and the Baltic and extending the scope of laws on environmental liability.

The measures soon had effects, some of them great, especially in the spheres of controlling air and water quality (Umweltbundesamt, 1992). Nevertheless, several problem areas remain, such as ground-water and soil pollution, where improvements are only very gradual, where the situation has stagnated, or where damage has contin-

ued to mount—despite foreseeable hazards even to human health. The forests also continue to suffer.

Nuclear energy policy remained controversial and vulnerable to the suspicion that a unilateral policy of protecting vested interests was being pursued, particularly in questions of waste disposal and safety for which the Minister of the Environment is responsible (as exemplified by the planning and siting procedure for the nuclear reprocessing plant in Wackersdorf which was cancelled in the end). The policy on chemicals, the enforcement of the Chemicals Act of 1980 and the planned construction of numerous plants for the incineration of hazardous waste also came under sharp attack, with critics maintaining that environmental policy was catering to economic interests and that the sounder strategy of orienting environmental policy to actual causes was being avoided.

Such misgivings, obvious shortcomings, the population's keen environmental awareness, and highly alert environmental coverage by the media presumably go a long way to explain why the environmental policy of the Conservative-Liberal government has nowhere near as progressive a reputation at home as it has had abroad in the last decade, be it in the decision-making community, the administration, economic circles or environmental organisations. On July 8, 1990, for example, independent environmental organisations rated the environmental policy of the Federal Republic of Germany the best among a group of most highly industrialised Western nations.⁹

3.3 Environmental Policy after the Unification of the Two German States: A Brief Outlook

The revolutions that toppled the political regimes throughout Eastern Europe in 1989 have also led to the disclosure of previously rigorously restricted environmental information. A plethora of pollution problems and widespread environmental devastation was revealed, especially in the former USSR and Czechoslovakia, in Poland, Romania and in the former German Democratic Republic (GDR). In spite of shared boundaries and a common language, the disclosure of information about the catastrophic ecological situation in the GDR (see Franke, 1992; Petschow, Meyerhoff & Thomasberger, 1990) surprised even West German experts who had been critical of the GDR system. One can say that large parts of a country of 16 million people have to be de-contaminated and cleaned up.

Shortly after the so-called peaceful revolution in the GDR in autumn 1989, the West German Ministry of the Environment intensified its already existing co-operation¹⁰ with the corresponding GDR ministry. In February 1990 both ministers set up a joint

⁹ The countries were ranked by their own national environmental organisations based on their actions in six areas—global climate change and energy, biodiversity, ocean pollution, population, environmental aid to Eastern Europe, and "global environmental bargain", or sustainable development aid to the Third World" (*International Environment Reporter*, July 1990: 281).

¹⁰ The co-operation of the two German states in environmental protection policy had been intensified tremendously in the years prior to the opening of the borders. In July 1989, for example, the two environmental ministers had signed a memorandum of understanding on the joint planning and implementation of six pilot projects in the GDR, supported by the West German government with about DM 300 million.

environment commission composed of three working groups dealing with legal questions and administrative organisation, an ecological recovery and development plan, and environment-related energy issues. In addition to the joint projects already running, 15 more projects were negotiated. These, and other, activities as well as the financial support were due to the disastrous environmental situation and the West Germans' self-interest in improving it:

In the view of the Federal Government, a special challenge is posed by the dramatic environmental situation in the GDR. The data, furnished by the GDR Government itself, on the state of the environment confirm that, for a major part, the air, water bodies and soil are subject to disastrous pollution loads and have suffered enduring damage. Such environmental pollution also has a detrimental effect on the territory of the Federal Republic of Germany. Therefore, in the interest of the environment in both parts of Germany and of the people of the GDR, co-operation based on partnership is urgently needed . . .¹¹

On August 23, 1990, the GDR parliament voted with a great majority to enter the territory of application of the constitution of the Federal Republic of Germany (according to Art. 23). With the formal reunification of the two German states on October 3, 1990, "co-operation based on partnership" came to an end. From that day on, West German environmental laws came almost completely into operation in the five new states that made up the former GDR. Exceptions concern, in particular, transition periods, e.g. enterprises in Eastern Germany were granted a period of grace until 1995 when West German environmental laws and standards will be applied throughout the country.¹² The Unification Treaty of 1990 (Art. 34) provides the essential legal basis for the stated goal to protect the natural bases of existence and to create uniform and high-quality ecological conditions throughout Germany. Several environment-related action and research programmes have been established to achieve these goals by 2000, e.g. the "Corner-stones for an ecological restoration and development in the new states"¹³, and substantial funds have been earmarked (and already spent) to support environmental protection measures and to complete the establishment of an environmental administration in the five new states.

The desolate environmental conditions in many parts of East Germany and other developments unfavourable to an effective environmental policy, such as the worsening general economic situation, particularly in Eastern, but also in Western Germany, the drastic decline of agriculture and some sectors of industry, poor housing condi-

¹¹ Bundesminister für Umwelt, Naturschutz und Reaktorsicherheit (BMU), 1990c, p. 7 [Environmental Policy. Environmental Report (Summary) 1990 by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, published by the ministry in May 1990, Bonn: Bonner Universitätsdruckerei].

¹² What is said above is only a general summary of a rather complex legal procedure and structure. For example, the basis for the adoption of West German environmental laws was already laid by Art. 16 of the State Treaty on the Foundation of Monetary, Economic, and Social Union, enacted in June 1990 in both German states (*Staatsvertrag über die Schaffung der Währungs-, Wirtschafts und Sozialunion*) and by the Environmental Framework Law of the GDR (*Umweltrahmengesetz der DDR*), enacted in July 1990. The State Treaty, the Environmental Framework Law and the Unification Treaty (*Einigungsvertrag*) make up the legal basis for the realisation of the so-called environmental union (*Umweltunion*) of Germany. For details, see BMU, 1990b.

¹³ See BMU, 1991.

tions, the dramatic rise in unemployment and the confused legal situation surrounding real-estate ownership in Eastern Germany, make it highly improbable that the ambitious official goals for an environmental restoration can be achieved by the end of the millennium.

There are, however, also more specific and "self-made" unfavourable conditions which decisively hinder the creation of an effective environmental policy in Eastern Germany. These include, above all, the fact that—with very few exceptions—the highly complex West German legal and administrative system was simply transferred to the fundamentally different legal, administrative, and economic system of the former GDR. Furthermore, aside from some more or less window-dressing statements of the government, no real concept for an "ecological modernisation" of the industrial structure and the infrastructure in Eastern Germany has been developed, striving, e.g. at an "integrative environmental policy" (i.e. the structural integration of environmental aspects into the areas of transport, energy, industrial development and agriculture policy). Positive, sensible environmental policy instruments and structures that already exist in Eastern Germany are receiving no support and consequently breaking down or disappearing. "SERO", the waste collection and recycling system of the former GDR that worked very well, is a good example of this.

For all these reasons it does not come as a surprise that, first, the ecological restoration of Eastern Germany is proceeding much more slowly than planned and, secondly, that numerous political conflicts related to environmental matters have emerged. The Federal Government's main strategy for overcoming the rising environment-minded opposition of East German groups to large industrial and public development projects (especially landfills, waste incineration plants, airports, highways, etc.) is to pursue a policy of amending environment-related laws and regulations with the objective of speeding up planning, permit and licensing procedures. Manifestations for this strategy are the Act on Speeding up the Planning Process for Traffic Routes 1991, the Act to Facilitate Investments 1993, the Bill on Speeding up Planning and Licensing Processes 1992, and a draft amendment to the Nuclear Energy Act (1992), all of which, among other things, will curb public participation rights. To be absolutely on the safe side, these laws have been made to apply to the whole country, not only to Eastern Germany.

Although critics of these bills and laws admit that there is an urgent need to modify and amend certain existing environmental laws to adjust to the problem structure in Eastern Germany, many of them fear that the difficult balancing of economic and environmental interests will be strongly shifted towards economic interests as a result of these planned changes. It is also feared that the curbing of participation rights will eventually lead to more opposition and conflicts, which might in turn delay planning and decision making processes even more.

In concluding this brief look at a "new chapter" of environmental policy making in Germany, one can say that the West German system is heavily dominating the Eastern system—and that the West German government has in no way used unification as a political opportunity to remodel the administrative and legal structures of its own environmental policy system and has missed the chance to react to the most prominent

points of criticism that have been raised for years by legal, administrative and economic experts, non-governmental organisations and even by politicians and administrators themselves (see Weidner, 1989b). Therefore, I consider my statement that with the formal unification co-operation between East and West Germany based on partnership has come to an end, to be not an undue exaggeration.

4. The Constitutional Division of Powers and Organisational Structure of Environmental Policy

The following pages provide an overview of the constitutional division of powers and the responsibilities and institutional arrangements at different levels of government.

4.1 The (Absence of) the "Right to a Sound Environment" in the Federal Constitution

In contrast to the constitution of 1919 (*Weimarer Reichsverfassung*), which explicitly postulated that "sites of natural beauty" and the landscape enjoy the protection and care of the state (Art. 150, sec. 1), the present federal constitution neither explicitly obliges the government to protect the environment nor does it stipulate a fundamental right of the people to a healthy and decent environment (see Kloepper, 1989, with numerous further references). Until very recently, it did not even mention the words environment, environmental protection or ecology.¹⁴ Correspondingly, the federal courts did not read an individual right to environmental quality into the constitution. There are some other constitutional norms of a general character which are usually cited to back up the claim that the federal government (the "state" in general) has a specific duty to protect the environment. These include the "social welfare state clause" (Art. 20, 28 GG); the right to life and physical integrity (Art. 2 GG); the guarantee of property and social obligations regarding its use (Art. 14 GG). It is generally agreed that protection of the environment is a *state duty* (*Staatsaufgabe*). The Federal Constitutional Court has passed some basic judgements stating that the Federal Government has a general obligation to protect the environment, especially when non-action would endanger life, health or property of the citizens. However, the existence of a basic right to (or a legally binding state goal to provide for) a decent environment was rejected. In summary, the constitutionally required obligations and rights regarding a decent environment are very vague. They do not establish "individual rights", i.e. they do not provide a basis for individuals or groups to sue on the grounds of disregard of constitutional environmental rights, unless the "ecological minimum of existence" is endangered by state activities, i.e. if environmental pollution resulting from these activities would directly damage life, health and property.

Usually a fundamental distinction is made between a basic individual right to a sound environment (*Umweltgrundrecht*), a state goal to protect the environment (*Staatszielbestimmung Umweltschutz*), and a state duty (*Staatsaufgabe*) to protect the environment. The first one has much more far-reaching consequences: a basic right

¹⁴ Since November 1994 environmental protection is—as a state goal—part of the constitution (Art. 20a GG).

would grant rights to the citizen that could be directly enforced (or claimed) by recourse to the administrative courts. A state goal, in contrast, would primarily function as a normative guideline for the legislature (stimulating function), serving the administration and courts as an interpretative guideline in balancing conflicting interests and/or vague statutory terms. A mere state duty, finally, postulates a state obligation and legitimises state activities against environmental damages, dangerous developments and risks, but it does not impose concrete, specific obligations on the state that would be enforceable by the courts (see Reh binder, 1988, pp. 2-3).

Since the beginning of the 1980s, there have been several attempts by political parties to amend the Federal constitution in order to provide for environmental rights in a more specific way. Even the Federal Government currently in power was to some extent in favour of such an amendment.¹⁵ With the exception of the Green Party, which favours the introduction of a basic right to a sound environment, all other parties prefer enshrining environmental protection in the constitution as a state goal.¹⁶

All initiatives to amend the constitution have failed until recently, mostly because of disagreement among the political parties concerning the form and extent of a constitutional "right to a sound environment". Furthermore, as early as 1983, a group of independent experts appointed in 1981 by the Federal Government proposed to supplement Art. 20 GG with the sentence: "It [the state] protects and takes care of culture and the natural foundations of human life" (see Reh binder, 1988).

This formulation did not find the support of the government. In July 1993, the Common Constitutional Commission (made up by members of the *Bundestag* and its Upper House) agreed, after a long debate, on a formulation for a state goal. This compromise proposal is widely criticised for being not only vague and opaque but also extremely weak so that almost no positive environmental protection effects can be expected (Bock, 1990; Brönnicke, 1993; van den Daele, 1994). The Commission recommended that the following state goal should be added as Art. 20a to Art. 2066: "The state protects, also out of responsibility for future generations, the natural foundations which sustain life. It does this within the framework of the constitutional order both by means of legislation and according to law and justice through the actions of both the executive and the judiciary."¹⁷ On 30 June 1994, the members of the *Bundestag* advocated virtually unanimously that the constitution should be amended along the lines of the proposal of the Common Constitutional Commission. The Upper House later also agreed, and, finally, in November 1994 this formulation was included in the constitution (Art. 20a GG).

¹⁵ See BMU 1992, p. 92: "Allowance is to be made for the increased significance of environmental protection by incorporating environmental protection into the constitution as a national objective. This is intended to provide the state with a commitment that protection of the environment is a national task"

¹⁶ The following brief explanation might be helpful for a better understanding of the "state discussion": Germans generally make a distinction between state and society. This is reflected in an ideological concept of "the state" according to which the state is responsible for guiding, improving and protecting society, even taking care of it (precautionary principle).

¹⁷ "Der Staat schützt auch in Verantwortung für die künftigen Generationen die natürlichen Lebensgrundlagen im Rahmen der verfassungsmäßigen Ordnung durch die Gesetzgebung und nach Maßgabe von Gesetz und Recht durch die vollziehende Gewalt und die Rechtsprechung."

The main arguments against a basic right and a more broad-brush state goal are based on the fear that this might lead to a wave of litigation and to a shift of power from the executive and legislative towards the judiciary. Critics of a narrow state goal, on the other hand, point out that this would have merely a symbolic function (van den Daele, 1994) and have no favourable effects on environmental protection. This argument seems to be plausible because, so far, no study has been able to prove any influence of the state goal provisions (as stipulated in some state constitutions) on the outcome of environmental protection activities. The symbolic function should, however, not be underestimated. It may, at least, make it more difficult for the government to neglect environmental tasks or initiate fundamental rollbacks of existing policies in times of economic crises. (See for further supporting arguments SRU 1994, pp. 62f.).

At state (*Länder*) level, many constitutions contain goals that call for a protection of nature, landscape, and natural resources. The Bavarian constitution stipulates a limited, fundamental right to enjoy nature (Art. 141) (for a discussion from a legal perspective see Kloepfer, 1989b, pp. 39ff.). The constitution of one of the five "new" states, Brandenburg, even contains a basic right to environmental protection (Art. 39, sec. 2). The Unification Treaty of 1990 explicitly mentions the objective of governmental policy to raise the level of environmental quality in the five new East German states to a high level, at least to that of the old Western federal states.

More important than constitutional duties are some explicit powers for governmental environment protection activities. The constitution grants the Federal Government several specified law-making powers giving it broad authority for legislation in the environmental area.

4.2 Legislative Power

Germany is a federal republic. According to the basic constitutional principle, legislative power lies with the states, unless the constitution explicitly assigns it to the Federal Government (Art. 30, 70 GG). The present German Constitution divides the legislative authority between the Federal Government and the 16 states (eleven "old", i.e. Western, and five "new", i.e. Eastern states) in three ways: in some (rare) areas, the Federal Government has exclusive jurisdiction, in all others it has concurrent or "framework" jurisdiction. Since the constitutional amendments of 1971 and 1972, the Federal Government has the following environment-related powers (only the most important ones are listed here):

- *Exclusive Jurisdiction* (Art. 73 GG):
 - only for areas relating indirectly to environmental protection: federal railways, air traffic, statistics, international affairs, bilateral and multilateral agreements.
- *Concurrent (competitive) Jurisdiction* (Art. 74) for:
 - some aspects of commercial, civil and criminal law
 - noise abatement
 - nuclear energy (siting, radiation protection)
 - waste management
 - air pollution control
 - poisonous substances

- plant protection
- animal protection
- coast protection
- road traffic, highway construction
- *Framework jurisdiction* (Art. 75) for:
 - nature protection and hunting
 - regional (land use) planning
 - water supply and protection¹⁸

The Federal Government is also granted jurisdiction for general administrative directives and regulations issued to implement federal statutes, but only if there is a given explicit authorisation in the several environment-related laws. This, however, needs the consent of the Upper House, which is true of all laws that concern genuine state responsibilities, such as implementation and enforcement.

Historically, the preponderance of environmental legislation has been at the state level. The regulations of some states have provided models for federal regulations. In some rare, though important, cases this has led to certain implementation problems. A typical example is the Federal Immission Control Act Act 1974 which was heavily influenced by North-Rhine Westphalia's Immission Control Act of 1962. At that time, North-Rhine Westphalia was not only the most polluted state in the country, it also was the one most experienced in environmental policy. As that law was designed to fit the state's very specific problem structure (a highly industrialised and urbanised region with particular types of pollutants from specific sources), it was not so well-suited to the sometimes quite different problem structures of some other states. Therefore, "implementation shortfalls" were "pre-programmed" by the federal legislation and it took some time to modify and amend the law and its ensuing regulations to make it more effective.

Since the early 1970s an enormous bulk of laws, regulations, decrees, guidelines etc. have been issued at federal level aiming at pollution control and environmental protection. Especially after the 1971 and 1972 amendments to the constitution, the Federal Government has definitely been the dominating law-making power. This does not mean, however, that the states have shut down their law-making machinery. On the contrary: almost all federal laws and ordinances have been translated into corresponding state laws. Furthermore, the states enact regulations in areas not covered by federal legislation, adjust federal laws to their specific needs or use their powers to specify federal legislation enacted under "framework" competence. Finally, the states can also issue any regulations (organisational, procedural, financial rules, etc.) necessary for their implementation and enforcement duties.

Concerning the items listed in the constitution under concurrent powers, the Federal Government has full legislative power, i.e. it can enact highly detailed laws. Furthermore, it is, as a rule, authorised to issue ordinances and administrative decrees for a specific act, although only if the act in question explicitly provides for this. Even in the

¹⁸ Several initiatives to establish concurrent jurisdiction for the water and nature protection law have failed because of the opposition from the Upper House. According to Art. 79, sec. 2 GG, an amendment changing the constitution requires a two-thirds majority in both houses.

case of concurrent powers the states retain legislative power and, in fact, use it, especially when the Federal Government fails to do so.

In those areas where the Federal Government has only framework competence, it is in principle only allowed to enact statutes which lay down general principles to be "filled in" by the states with detailed legislation. But here, too, the Federal Government is sometimes authorised to issue detailed provisions in ordinances and general administrative decrees (e.g. the Water Management Act).

Administrative decrees and ordinances play an important part in specifying the complicated content of a law. They mostly concern material and procedural aspects. Sometimes they even establish the very core of a policy. e.g. in air pollution control policy, the First General Administrative Decree (Technical Instructions for Maintaining Air Purity = *Technische Anleitung Luft*) with standards for ambient air quality and emissions limits; the Ninth Ordinance for Implementation (Ordinance on Principles for Licensing Procedures); and the 13th Ordinance for Implementation (Ordinance on Large Firing Installations). The latter one was, as mentioned above, the decisive instrument that made Germany (aside from Japan) the world-leader in SO₂ and NO₂ reduction at large stationary sources. It should be noted that only the ordinances function like laws. The "mother law" determines which institution is allowed to issue an ordinance. This may be the Federal Government, a federal ministry, or a state government. For almost all ordinances consent of the Upper House, not the *Bundestag*, is required.

Administrative decrees serve as a binding guideline only for public authorities, not the general public, the addressees or the courts. Therefore, they are usually open to interpretation by the courts as to whether or not they fulfil the statutory (and constitutional) requirements. However, some federal court decisions have narrowed this scope for interpretation for the lower courts. In a widely observed case of conflict, for example, the Federal Administrative Court held (in the so-called Voerde decision) that ambient air quality standards must also be considered by the courts as the state of present scientific knowledge ("*antizipierte Sachverständigengutachten*"). Consequently, they are to a high degree binding for courts and open to interpretation only if the courts can prove that certain substantial or procedural preconditions for standard-setting (i.e., fixing ambient air quality standards) are not fulfilled.

The role of administrative decrees in civil court cases is even more complicated. In civil litigation they play a less important role than in administrative court cases, but they also have an important referential function.

Local authorities have only limited legislative powers (to issue so-called by-laws), derived from Art. 28, sec. 2 of the federal constitution. However, it follows from the federal principle of the constitution that local bodies are principally allowed to legislate in matters for which the state in which the local authority is located has been granted legislative power and if the tasks are strictly confined to their administrative area and have not been delegated by law to the state or Federal Government. A precondition for issuing by-laws is a general or specified (i.e. case-by-case) authorisation from the state. It is generally not legally mandatory to have (correctly issued) by-laws authorised by the state government. However, for preventive reasons and to ensure

consistency of the legal order, some sort of supervision has been established, varying from state to state, e.g. an obligation to request authorisation from the state government or merely the duty to inform it. Almost all local bodies, especially the larger ones, have issued by-laws directly or indirectly concerning environmental matters.

4.3 Implementation and Enforcement

Implementation and enforcement of both federal and state environmental laws is the responsibility of administrative agencies at the state level. Only in very few areas, e.g. chemicals control (screening/registration of chemicals), licensing of nuclear power plants, and highway planning, is a federal agency responsible or the state's agency acts as an "agent" of the Federal Government. In the latter case the state agency's activities are subject to legal and substantial supervision.

Implementation by the states includes:

- establishment of the organisational structure
- budget allocation
- granting permits and licences for the establishment, enlargement or modification of industrial plants, power plants, waste disposal sites, waste incineration plants, transport of hazardous waste, discharge of effluents into rivers and sewers etc.
- fixing levies and charges
- establishment and operation of monitoring networks
- publication of environmental information and data
- establishment of emission/ambient air inventories
- designation of specific pollution control areas as well as nature and water protection areas
- enforcement and punishment.

The Federal Government has a limited power to review state enforcement of federal environmental laws. In almost all areas the states are subject to federal control only with regard to the correct application of laws (legal supervision = *Rechtsaufsicht*); they are subject to federal control of content (*Zweck-* or *Sachaufsicht*) only in those rare cases (see above) where federal responsibilities have been delegated to them.

The local authorities implement tasks under the self-government principle explicitly granted by the constitution (Art. 28, sec. 2 GG) and tasks delegated by national (very rare) and state governments (very often) to them. The first are under only legal supervision by state authorities; the latter are under legal and substantial supervision and control. In that case they function as the state administration at the local level. Their legislative powers, which are not mentioned in the constitution, are confined to issuing by-laws. Environment related by-laws usually deal with land-use rules, charges for waste handling and sewage, establishment of noise abatement zones, certain effluent standards, waste management plans etc. The following list names the main domains of activity of local authorities that are related to the environment:

- building and development planning
- waste management and urban cleansing
- traffic control
- construction and maintenance of local roads

- energy supply
- sewage networks (establishment and operation)

Local authorities play an important role in the implementation of environmental policy, both directly by fulfilling their environment-related responsibilities and duties and indirectly by their development and land-use policies, which often interfere with environmental protection goals. Especially in economically strong and politically self-confident local authorities, there have been problems concerning their legal powers which have become a matter for litigation. The City of Munich, for example, enacted a ban on no-deposit beverage containers, which has been successfully challenged in court. But the City of Kassel succeeded with its by-law establishing a tax on one-way packaging for food and beverages enacted in July 1992. The fundamental decision on this conflict, made by the Federal Administrative Court in August 1994, in general provides for more autonomy of the local level in using taxes as an environmental instrument. Although the scope for discretion is restricted by several forms of federal and state control, studies on local power and implementation have shown that local bodies actually still enjoy a high degree of flexibility. Therefore, the quality of local environmental policy is highly dependent on the degree of problem consciousness of local administrators and citizens, "political will and skill", and the economic structure and situation in the local area, including the financial situation of the local authority.

4.4 Organisational Structure of Environmental Protection in Germany

The highly complex organisational structure of environmental protection in Germany is described for the federal, state, and local levels. To save space, the federal level is described only in key words and only the most relevant institutions are considered.

The establishment of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety in 1986 was the last major restructuring of the administrative system dealing with environmental policy. At present, all 16 federal states have established a ministry mainly, or exclusively, responsible for environmental matters. Some of them also have responsibilities with a close, but indirect, relation to environmental policy, such as regional planning (e.g. Bavaria: State Ministry for Regional Development and Environmental Affairs), nature conservation (e.g. Saxony-Anhalt: Ministry for Environment and Nature Conservation), health (e.g. Rhineland-Palatinate: Ministry for Environment and Health), nuclear safety (e.g. Hesse: Ministry for Environmental and Nuclear Safety), agriculture (e.g. North Rhine-Westphalia: Ministry for Environment, Regional Planning, and Agriculture), and urban development (e.g. Berlin: Senator for Urban Development and Environmental Protection). The state ministries for the environment are not subordinate to the federal ministry. Following from the constitution, the Federal Government has almost no powers to control the organisation of policy-making and the establishment of the implementation systems at the state and local levels.

4.4.1 National Level

The constitutional division of powers means that the states (with some rare exceptions) are responsible for the implementation and enforcement of federal laws. This is reflected in the organisation of environmental policy at the federal level. With the exception of the regulation of toxic substances under the Federal Chemicals Act and the regulation of nuclear safety where federal implementation authorities are responsible, there are no central implementation agencies. Even in the area of siting of nuclear plants and radiation protection where the Federal Government is granted implementation powers most of the tasks have been delegated to state authorities.

With regard to powers, responsibilities and the principles of co-ordination and conflict resolution, the formal internal structure of the Federal Government is determined by the constitution. According to Art. 65 GG, it is the Federal Chancellor who sets the general guidelines of governmental policy and bears responsibility for it. Within these guidelines each federal minister manages his or her department independently and bears responsibility. As for environmental policy, this means that all ministers with environment-related tasks have great scope for manoeuvring that is restricted only by the general guidelines and, of course, by the law. Thus, there is a high potential for inter-ministerial conflict, especially in view of the fact that for quite some time as many as 16 ministers had environment-related powers and that there are generally competing interests between environmental and other policies (financial, economic, agriculture, energy, transport, etc.). This situation has, in part, improved since the establishment of the Ministry of the Environment and the accompanying concentration of environmental duties and powers. Remaining conflicts are a matter of formal and informal procedures of conflict regulation. The formal procedures are again structured by the constitution which requires that inter-ministry conflicts be settled by the Federal Government, i.e. by all ministers on the basis of a majority rule. In the event of a deadlock, the Chancellor decides. Therefore, it is part of the permanent work of the Minister of the Environment to seek support for his policies through internal and external coalition-building, negotiation and bargaining and support from outside.

In order to avoid conflicts, various co-ordination institutions have been established at the federal level. These will be described later in connection with the co-ordination of environmental policy. The following list names the key institutions in the environmental policy area at the level of Federal Government.

(1) Federal Ministry for the Environment, Protection of Nature and Nuclear Safety, established 1986. Staff: 850; budget: 1,262 million DM (1993)

- *General domains:*

- developing regulations, guidelines, strategies
- promoting ecological clean-up and development in the five new states
- international and supranational co-operation (the Minister of the Environment represents the Federal Government in the field of environmental co-operation with international organisations, other countries and the European Union)
- global environmental policies (e.g. programme on the protection of the atmosphere)
- promotion of environmental technologies

- informing the public on environmental questions
 - Specific domains:
 - protection of water bodies and seas
 - protection of ground water
 - waste water treatment
 - soil protection and clean-up of contaminated sites
 - waste management: avoidance, recycling, disposal, incineration
 - noise abatement
 - protection of human health from toxic substances
 - prevention of hazardous incidents at industrial plants
 - nature conservation
 - landscape protection and planning
 - safety of nuclear installations protection from radiation
 - disposal of nuclear waste
 - air pollution prevention and clean-up
 - No enforcement agencies, but the tasks of registration and evaluation of toxic (dangerous) substances are administered by three federal agencies.
- (2) Other Ministries: Since the fundamental reorganisation of environmental tasks in 1986, most responsibilities with an indirect, but often strong, influence on environmental matters remained with other ministries, e.g. environmental R&D, energy R&D: Ministry of Research and Technology; energy policy: Ministry of the Economy. The Ministries of Agriculture, Transport, Public Health, and Regional Planning, Building and Urban Development also have environment-related tasks.
- (3) Federal Agencies Related to Environmental Protection
- (a) *Federal Environmental Agency (UBA, Berlin)*
- A non-executive agency, i.e. with rare exceptions it cannot issue regulations or perform control functions. Established in 1974; staff: 920; reports to the Ministry of the Environment. Its main tasks are the preparation of government decisions (especially statutory and administrative norms and rules, technical standards) and research co-ordination; implementation and enforcement of some provisions of the Chemicals Act, the Pesticides Act and the Genetic Engineering Act (concerning chemicals, detergents, pesticides and genetically altered organisms), public education and information; development of an environmental planning, monitoring and information system; management of a special monitoring network (air quality) in "rural" areas ("background pollution" data); participation in the procedure for labelling environmentally sound products ("Blue Angel" Label); involvement in implementation of the soil protection and clean-up programme, in the biological monitoring of the North Sea, in registration and evaluation of environmental chemicals and in the environmental sampling bank.
- Since its establishment the agency has gained tremendous importance as an information centre for the government, private organisations and the interested public. Some of its reports and studies have deeply influenced the public

discussion and implementation of countermeasures. It is clearly the most important agency in the environmental policy area.

After twenty years of what is generally seen as a successful existence, a fundamental re-structuring process has now begun: separate work units are being formed to deal with integrated environmental protection strategies, global aspects of environmental protection are being organised in special divisions, a special department is being created for the implementation of laws and for the examination of the state of the environment in the various media and for the formulation of environmental quality goals. In addition to this the "Institute for Water, Soil and Air Purity" which belonged to the Federal Health Agency is now being integrated into the Federal Environmental Agency. In connection with the drastic cuts in research funds over the last two years and the discussion about moving the Agency to Eastern Germany there is increasing fear that it could lose its previous efficiency and that the critical impetus it gives to state environmental policy could decrease.

(b) *The Federal Agency for Nature Conservation (BfN, Bonn)*

This agency was established in August 1993; it reports to the Ministry of the Environment; staff: 200. Main tasks: co-ordination and promotion of national and international nature protection tasks and support for planning and implementing responsibilities set out in the Federal Nature Conservation Act, e.g. landscape planning, protection of designated areas and species, scientific support for the Federal Ministry of the Environment in the area of nature conservation, implementation tasks/executive duties in the field of protection of species (e.g. in the import and export of protected animals and plants).

(c) *The Federal Office for Radiological Protection (BfS, Salzgitter)*

This agency was established in 1989; staff: 550; reports to the Ministry of the Environment. Main tasks; implementing the duties of the Federal Government under the Atomic Energy Act and the Act on Preventive Radiological Protection, e.g. questions of nuclear safety, transport of radioactive substances, disposal of nuclear waste, monitoring.

(d) *Agencies Related to Other Ministries*

There are several federal agencies with limited responsibilities related to ministries other than the Ministry of the Environment, e.g. units of the former Federal Health Agency, Federal Statistics Agency.

(4) *Advisory Bodies for Environmental Protection Policy*

(a) *The Council of Environmental Experts (SRU, Wiesbaden and Berlin)*

This independent group of experts, nominated by the government (the SRU was founded in 1971), reports on the environmental situation, investigates negative developments and proposes possible ways of averting them. Their primary goal is to help decision makers and the public at large in judging environmental matters. Several reports on major environmental issues have been compiled and published by the Council.

In 1990 some organisational changes took place as a result of a decree. For instance, the number of members was reduced and the composition of

disciplines changed (a political scientist or administrative expert were not, however, included). Furthermore, it was determined that an overall report on the environment should be drawn up every two years; additional reports or opinions on environmental topics can also be prepared on the initiative of the SRU and the Minister of the Environment may also commission the SRU to prepare further reports and opinions. In spring 1994 the SRU presented an overall report on the environment for the first time in many years. In it it criticised explicitly—and that is new in the history of the SRU—some of the new organisational rulings, on the grounds that they limit its flexibility and its capacity for adequate environmental advice (SRU, 1994 a, p. 68).

(b) *Advisory Committee for Nature Conservation and Landscape Protection (Beirat für Naturschutz und Landschaftspflege)*

The task of this committee is to advise the Federal Minister of the Environment on all matters relating to nature conservation and landscape protection.

(c) *Radiological Protection Commission (Strahlenschutzkommission, SSK)*

The task of this commission is to make recommendations to the Federal Minister of the Environment on the optimal protection from the dangers of radiation of the general public and staff working in medical facilities, research centres, trades and industries and nuclear installations.

(d) *Reactor Safety Commission (Reaktorsicherheits-Kommission, RSK)*

This commission advises the Federal Minister of the Environment on matters concerning the safety and protection of nuclear installations, such as nuclear power stations or intermediate storage sites for spent fuel elements. It is also involved in the development of safety standards.

(e) *Several Scientific Advisory Councils to the Bundestag (Enquete-Kommissionen)*, investigating specific issues such as "Global Changes to the Environment" (meanwhile dissolved), "Flow of Substances and Policy Questions with regard to Chemicals", "Protection of Men and the Environment"

The task of these advisory councils is to submit reports and proposals to the parliament and the Federal Government. These reports usually contain details on the type and scope of possible environmental changes (including ethical aspects), an analysis of the latest research results and information on the avoidance and elimination of any negative development that may arise.

4.4.2 State Level

Germany is a federation of 16 states, 11 "old" and 5 "new" (the former GDR) ones. In general, implementation and enforcement of environment-related laws and regulations lies within the power of the states. They organise independently their organisational and implementation structure, which explains the high degree of variety in this structure. As already mentioned, some states have established special environmental protection ministries, others have ministries with environmental protection as their main task but which cover related areas (e.g. landscape planning, agriculture, forestry, city planning).

The implementation structure varies considerably: some states have established special authorities that are independent from the general administration (e.g. air pollution control in North Rhine-Westphalia). However, a reorganisation process was started recently with the objective of integrating the responsibilities for air, water and soil in 12 new environment agencies with the tasks of surveillance, supervision and licensing. In other states the general administration is responsible but is advised/supported by separate technical agencies. In Bavaria, implementation and enforcement of air and water pollution control laws is the responsibility of authorities within the general administration. Some states have established special agencies (State Agency for Environmental Protection), comparable to the Federal Environment Agency and some of these also have implementation responsibilities.

Most states have a three-tier administrative structure (lowest level: local authorities, e.g. *Gemeinde*, *Kreis*; intermediate level: regional authorities, e.g. *Regierungsbezirk*; highest level: ministries). In Saarland, Schleswig-Holstein and the city-states of Berlin, Hamburg, and Bremen there is no intermediate level. All levels have different implementation and enforcement responsibilities. In some states, for example, authorities at the intermediate level (*Regierungspräsidium*, *Bezirksregierung*) are responsible for issuing permits for plants which will cause emissions; in other states, lower-level authorities are responsible for this. Most of the responsible authorities have established special units for dealing with environmental matters.

Due to this situation and other factors, such as the economic situation, problem structure etc., there are glaring differences in the implementation and enforcement patterns in individual states. However, a common basis is provided for by administrative procedure statutes issued under general administrative law, by specific administrative directives related to environmental protection passed by the Federal Government and by the fact that the consent of the Upper House is required for framework laws, regulations, general administrative directives (e.g. Technical Instructions on Air Purity Maintenance, on Noise Abatement, on Waste Management), and procedural rules in environmental laws and related ordinances issued by the Federal Government. In most cases, the states have passed their own procedural regulations based on the federal regulations. These procedural statutes and directives are also binding for local authorities.

According to the different sources of a law, there are different types of administrative procedures which lead to administrative decisions or decrees being issued. There are procedures for planning decisions (e.g. land use); for facility-related, area-related, and product-related measures; for sanctions etc. The most important, and complex, procedures are the licensing procedures for major emission sources and the, even more complex, comprehensive permit procedure for specific facilities and measures, e.g. siting of waste disposal facilities, airport siting, storage and disposal of radioactive waste. The latter procedures (*Planfeststellungsverfahren*) not only check whether all legal requirements are fulfilled, they also examine whether there is an actual need for such a measure or facility. These administrative procedures are also of fundamental importance because they provide the basic mechanisms for (actually very broad) public participation as well as inter- and intra-administrative co-ordination. All "relevant"

authorities (at all governmental levels and from neighbouring districts) have to be involved.

Once a permit or a license has been granted, only parties with a direct and legitimate interest may initiate court proceedings. Some states (e.g. Bremen, Hamburg, Hesse) have allowed class action for acknowledged organisations, though only on the basis of Art. 29 of the Federal Nature Protection Law. In the case of "unpopular" developments, such as airports, waste incineration plants, power plants, thousands of people may be involved and the total procedure may run for years—especially if the administrative courts are involved, which is quite common for large projects. Mainly for that reason, the Federal Government has recently enacted special laws to streamline and speed up administrative decision procedures. Unfortunately, this also means narrower scope for public participation.

4.4.3 Local Level

According to Art. 28 GG, the local authorities have the right to self-administration. Their environment-related tasks include mandatory and voluntary duties which they perform "in their own right" and others delegated to them by state governments or the Federal Government, e.g. the establishment of noise abatement plans under Art. 47a of the Federal Immission Control Act. A recent amendment to this law authorises local authorities to enact special regulations applicable during occurrences of photochemical smog.

Laws in other political areas also grant the local authorities the possibility of independent activities in the field of environmental policy. For example, urban traffic and transport lies within the planning responsibility of the local authorities and the Road Traffic Act (a federal law) gives them numerous additional possibilities for action, such as imposing instance speed limits, introducing environmental traffic management schemes, establishing pedestrian zones. In some cases there are conflicts between federal and state authorities or between local authorities and state authorities, for example when measures taken by the local authorities could have an effect beyond their area, such as cases where restriction of traffic in one local authority might lead to heavy traffic problems in another. This kind of possible side effect is normally seen as a reason to take action against these measures. This limits the "real" scope for action of the local authorities considerably. But a certain ambivalence can also be noticed in the attitude of the local authorities: on the one hand, they insist formally on their independent scope for action, yet on the other hand, when trying to resolve local conflicts of interest, such as the resistance of business people to restrictions on private motor traffic because they fear loss of income, they sometimes urge the federal legislator to pass laws which take the pressure off them. But even in this highly controversial and complex area of politics the system of co-operative federalism makes its presence felt. For example, early in 1993 the Federal Ministers for Traffic, Construction and the Environment in conjunction with colleagues from 16 federal states achieved consensus on a mutual traffic policy ("Nettetaler Resolutions") (UMWELT, BMU, No. 1/1993, p. 12).

The self-administrative responsibilities of the local authorities are subject to control of the legality of their actions only (e.g. construction, master plans, sewerage); delegated responsibilities are supervised for legality and content (and subject to directives by state authorities).¹⁹

There is no general rule as to how many environment-related departments should exist in local administration and what specific functions they should have. As a rule, several departments and authorities are responsible for various aspects within one local body, mostly depending on its size and problem structure. The larger local authorities (e.g. cities), but also associations of several smaller authorities (e.g. districts) have often established special environment departments. In general, the following environment-related functions are fulfilled by separate authorities (Umweltbundesamt, 1984, p. 18-20):

Town planning office

Planning for real estate utilisation and building; partly traffic planning.

Urban development office

Preparation of urban development plans and specific plans affecting the area, including environmental protection aspects.

Regulatory office

Control functions for environmental protection, prosecution of violations of environmental protection regulations, even traffic planning in some cities. In towns not belonging to a district or towns which are the administrative centre of a district, it is often the lower authority responsible for licenses and control functions in environmental protection (in particular air quality control, noise prevention, waste disposal, nature and countryside protection).

Public health office

Control functions for environmental protection, in particular in the field of water supply, control of harmful substances, waste disposal, food control, radiation protection, co-operation in approval proceedings for environmental protection by evaluating the aspects relevant for health protection.

Office for chemical analyses

In particular in large cities, control measuring, and in the case of water and air pollution sampling, soil contamination, food control.

Veterinary office

Food control in towns not belonging to a county and in county towns.

Building office

In towns not belonging to a district and in major district towns, often lower authorities for licensing and control proceedings in the field of environmental protection unless the regulatory offices are responsible (in particular in case of air pollution control, noise prevention, protection of waters, waste disposal, nature and countryside protection). Traffic planning in some cities.

Public works office

¹⁹ For comprehensive information on environment-related by-laws issued by local authorities and a discussion of their legal powers see Lübke-Wolff, 1993

Maintenance and extension of communal roads, partly traffic planning, in some towns not belonging to a district and in towns which are administrative centres of districts approval and control functions in the field of environmental protection (in particular control of air pollution, noise prevention, protection of waters). Unless special municipal sewage offices exist, also responsible for planning, building, maintenance and operation of sewage treatment plants.

Municipal sewage office

Planning, building, maintenance, and operation of urban sewage treatment plants.

Parks and gardens office

Planning, building, and maintenance of municipal parks, cemeteries, and forests. Functions of a lower nature protection authority in some towns not belonging to a district and in towns which are administrative centres of a district.

Municipal cleansing department

Waste disposal (collection, transport, partly even storing of waste, in particular household refuse), road cleaning, snow removal. Licensing and control proceedings in the field of waste disposal in some towns not belonging to a district and in towns which are administrative centres of a district.

Generally, it can be said that the relatively high degree of autonomy which the local authorities enjoyed in the time immediately after the Second World War, both in the field of environmental protection and other areas, gradually diminished over the years (see Norton 1994, p. 231). The principal reasons for this included (1) legal measures implemented as part of a reform of the administration which were economically motivated. To improve state planning and control of economic and investment policy, the state (at Federal level) widely extended its previously very tightly constrained scope for financial intervention in local authority affairs, and therefore for control over them; (2) the reform of the local authority boundaries (*Gebietsreform*), which was part of the local authority reforms of the sixties and seventies, and of their responsibilities in which the number of local authorities was reduced by nearly two-thirds. This caused a de facto shift of responsibilities to state institutions instead of the expansion of the autonomy of the local authorities which had originally been announced as part of the boundary reforms.

In the field of environmental protection there was a similar centralisation giving more power to the state. Decisive in this were the numerous deficits in local authority environmental policy (for example, in waste management) during the sixties and seventies. There was talk of the "failure of many local authorities in the area of environmental policy" and also of the environmental damage and problems caused by the local authorities themselves, by construction projects, for example. In this context "countless" measures at federal level (including guidelines, regulations, recommendations—they were known as a "deluge of standards") increased both the breadth (areas of responsibility) and the depth (degree of detail) of control by state environmental regulations so that the problem turned into one of implementation due to the "over-regulation" and generally the flexibility and efficiency of the local environment authorities was severely reduced. The real development in the extent of the local authorities' area of competence is, however, in stark contradiction to the fundamental

statements of dogma made in the constitution about the autonomy of the local authorities.²⁰

The extent of the local authorities' autonomy is also restricted by their sources of finances and has similarly shrunk over the years. Actually, under the constitution, local authorities have a vested right to "appropriate financing". This is meant to correspond to the responsibilities allotted to them. The principal duty to ensure appropriate financing lies with the states.

The most important source of financing for the local authorities is taxes. The local authorities have a defined "tax mandate" which is specified in the constitution (Art. 104a ff.). Their most important autonomous tax source is corporation tax, the level of which may be determined by the local authorities (Art. 106, section 6, GG). This often results in pre-programmed conflicts with environmental protection (e.g. by local authorities operating a "lax" environmental protection policy in order to attract businesses and thus increase their tax revenue). The federal authorities, state authorities and local authorities also receive a fixed proportion of the other taxes raised at central level (income tax, corporation tax and value added tax). There is also a re-apportioning of finances amongst the states, organised by central government, to try to balance out major financial differentials between the individual states which still exist despite the regular tax allocations. The fundamental aim of this is to ensure the "uniform standard of living" throughout Germany which is required by the constitution.

Apart from these largely fixed sources of finance (which can therefore be used only to a small degree by the central or state governments as an instrument of control for their own political aims), the local authorities also receive other general and specific (i.e. tied to a particular use) state transfers. The latter can be made, for example, for particular heavy burdens on the local authorities due to the allocation of responsibility normally pertaining to the central or state government, such as supervisory tasks in the field of environmental protection. The local authorities are supposed to be reimbursed for these "commissioned responsibilities", but this is normally not fully carried out. The state authorities use their discretion here and their power over the local authorities and in doing so sometimes cause them great financial difficulties. At present many local authorities are in deep debt, the financial situation of the local authorities has steadily deteriorated throughout the nineties; this is above all due to local authority spending on social benefits, particularly income support. In the field of the environment, too, in which the local authorities have their own specific responsibilities and duties, they are often dependent on state subsidies (in building sewage treatment plants, for example). In Germany we often talk of "golden reins." This means that the local authorities lose their scope for action, including their power to make decisions about the type of environmental technology they wish to use.

²⁰ On disputes about competence between local authorities and state institutions—which occur frequently in the field of planning—and on judgement practice of the courts on this and the corresponding dogma under constitutional law see Haaß, 1993 which includes numerous bibliographical references.

4.5 Co-Ordination of Environmental Protection Policy in Germany

The complexities of a three-tier federal system (*Bund—Länder—Gemeinden*) with separated and overlapping powers of jurisdiction as well as implementation and enforcement tasks require a high degree of vertical and horizontal co-ordination and co-operation among the various levels. The attempt to achieve as high a degree of uniformity in implementation as possible is also encouraged by common bureaucratic traditions within state governments and the predominant legal background of senior officials. Furthermore, permanent employment of senior officials and low fluctuation rates allow for the accumulation of basic expert knowledge and favour the establishment and maintenance of informal communication networks.

Similarly, there are also conflicts which the courts are called upon to solve or alternatively the higher authorities issue formal "instructions" to the authorities which have followed a "non-conformist" path. For example, in 1993 the Federal Minister of the Environment issued instructions as prescribed under Art. 85, para. 3 66 in the conflict over the storage of radioactive waste to the Minister of the Environment for the state of Hesse. This was possible because the federal minister in this case has jurisdiction over the federal states in matters of "nuclear law."

The following overview provides information on the most important legally and also informally established institutions and bodies designed to streamline environmental policy in Germany and fulfil the general goals of achieving a large extent of "homogeneity of the living conditions throughout Germany" (Art. 72 GG) and putting into practice the principle of "co-operative federalism" as required by the constitution.

1. Central Level

At the central level of government the following institutions and bodies are in charge of designing and co-ordinating environmental policy:

- Ministry of the Environment (overall charge)
- Cabinet Committee for Environmental Issues (*Kabinettsausschuss für Umweltfragen*), formally chaired by the Federal Chancellor (currently by the Minister of Environment as appointed executive chairman), with members from all federal ministries involved in environmental protection.
- The Standing Committee of the Heads of Divisions for Environmental Questions (*Ständiger Abteilungsleiterausschuss für Umweltfragen*), chaired by permanent secretary in the Ministry of the Environment; the permanent members are senior officials for environmental questions in federal ministries. This board co-ordinates environmental policy both within the Federal Government and between the states and the Federal Government.
- Parliamentary Committee for the Environment, Nature Protection and Nuclear Safety (members of the *Bundestag* representing the various political parties)
- General advisory bodies, including private ones, e.g.:
 - Council of Environmental Advisors as well as other advisory committees and commissions, see 4.4.1. above)
 - Association of German Engineers (VDI)
 - German Association of Gas and Water Management Experts (OVGW)

- Waste Water Technology Union (ATV)
- German Standards Institute (DIN)
- Technical Control Association (TÜV)

Furthermore, there is a general rule that all ministries must involve the Ministry of the Environment in drafting ordinances and administrative decrees that touch on environmental matters. Co-operation is especially close between the Ministry of the Environment and the Parliamentary Committee for the Environment. At parliament level this committee is the most important body for clarification of interests and preparing laws. It controls the parliamentary discussion process. Its final statement on a bill and its recommendations concerning the decision on a bill are generally followed by parliament. In accordance with the "co-operation principle" of German environmental policy, this committee, along with the Ministry, also organises the legally required hearings with external experts and representatives from interest groups. Contrary to the 1970s, when environmental organisations were often excluded from such meetings, opportunities for their participation have increased. Since the basic reorganisation of environmental policy responsibilities in 1986, co-ordination problems have been reduced but not solved. This is partly due to the continued fragmentation of environmental responsibilities and powers. However, conflicts and restrictions primarily result from different views on political priorities among the ministries and their constituencies. And, judged on its financial and personnel resources, the Ministry of the Environment is still one of the weakest ministries.

2. Central-State Level

Between the federal and the state governments there are various informal and formal forms of continuous or temporary co-operation; only the most important ones are mentioned here.

- Conference of the Ministers of the Environment at state level (*Umweltministerkonferenz*), including the Federal Minister of the Environment. A forum for co-ordination of state and federal environmental policy. As a rule, meetings are held twice a year.
- Conferences of the Administrative Heads of the Ministries of Environment of the Federal Government and the States. The main tasks are preparation and drafting of relevant policy matters and general exchange of information.
- Several state-central-government working parties in all major areas of environmental protection (e.g. waste and water management, air quality, nature and landscape protection). The State Working Party on Water Management, for example, is made up of the responsible state ministries and representatives from various federal ministries. In few cases the working committees are chaired by a representative from the federal ministry. The latter ones have only the status of "guests", i.e. they have no right to vote. The aim of this mixed make-up is to reach consensus by negotiation in order to avoid a legal blockade in the Upper House. (In fact, this way of negotiating laws, regulations, and standards in advance reduces the legally enshrined possibilities for influence by the state assemblies.)
- Upper House (*Bundesrat*). The Upper House represents the state governments (not the state parliaments!), who appoint a certain number of representatives depending

on the population of the state. It has a power of veto over most laws passed by the *Bundestag*. All environmental laws touching responsibilities of the states must be passed by both the *Bundestag* and its Upper House. Most federal ordinances and administrative directives must be passed by the Upper House. Conflicts are handled by an Inter-Parliamentary Committee. Before a bill drafted by the Federal Government is read in the *Bundestag* it must be submitted to the Upper House for comment. This ensures that the objections and recommendations of the states are considered before the bill is formally introduced to the *Bundestag*. In cases of conflict, an inter-parliamentary committee can be called to work out a compromise. If consent of the Upper House is not required, a (majority) veto of the Upper House can be overruled by a majority vote in the *Bundestag* (correspondingly, a two-thirds majority veto requires a two-thirds majority in the *Bundestag* to overrule it). If consent of the Upper House is required and the committee cannot achieve a compromise, the bill is rejected.

3. State Level

Aside from various bi- and multilateral consultation committees and working groups between states which share a border, have the same river flowing through their territory or have a common interest in a specific matter, the most important co-ordinating institutions are:

- Upper House (see above)
- Several committees for specific and general aspects of environmental protection, e.g. the Working Party on Water Management, comprising the responsible ministers of the states. The representatives of several federal agencies/ministries participate continuously as "guests" but have no voting rights.

4. State-Local Level

- Some states traditionally have a three-tier administrative structure in which the middle tier (e.g. *Regierungsbezirk*) executes state-level tasks of co-ordination, control and implementation.
- Several committees and organisations (representing local and state bodies) for specific and general aspects of environmental protection as well as specific procedural rules for certain environment-related tasks.

The specific type of German federalism as well as the vertical and horizontal co-operation and co-ordination mechanisms have led to a strong "executive bias" in environmental policy making. Parliaments and local authorities have had only limited access, and consequently influence, in the phase of "co-operative federalism," which is also characterised as "administrative federalism," but in recent years they have—with some success—been pushing for more influence.

5. Local Level

- Special associations of interest organisations ("*kommunale Spitzenverbände*"), especially those of the association of major cities (*Deutscher Städtetag*) and of the association of smaller authorities (*Deutscher Städte- und Gemeindebund*). Procedural rules of the *Bundestag* and the Federal Government provide for some form of participation of these organisations (e.g. hearings), if laws to be passed affect the principle of local self-government.

Overall co-operation in the field of environmental policy bears the mark of the special German brand of federalism. Features of this are the strong interdependence between executive institutions at all levels and the co-ordination mechanisms which have developed in particular between the central government and the states. Complex procedures of representation and consultation are fundamental to this system.

Much legislation and other important decisions result from bargaining behind the scenes and in the various bodies between politicians (of the government and the opposition) and administrators. In an international comparative perspective, the high degree of formal and informal co-operation is an outstanding feature of the German federal system. As Norton (1994, p. 259) writes:

"Important as the separation of powers between territorial levels may be in law, in political terms there is the opposite: an intertwining of activities (*Verflechtung*) and a high degree of interdependence between the Bund, Länder and local government and between them and other sectorial interests. Political influence is exercised in practice more upwards than downwards Decision-making in practice reflects contributions from a wide spectrum of opinions from local government and other local public and private bodies as well as that of the higher echelons of policy-makers."

The system as described becomes even more complex due to the fact that it is closely meshed with the neo-corporatist elements of industry and society:

"Germany possesses a powerful system of interest group organisations, recognised in law and closely linked with the political parties. It includes statutory chambers of trade and industry and trade union and voluntary bodies associated with the churches. They are a recognised part of the institutional system in each Land and larger municipal areas and receive support from public revenue. They work through a complex network of consultative procedures which underlie and integrate policy-making at all levels. The interweaving of interests and influence between sectors and levels of government and society (termed *Politikverflechtung*) is an outstanding aspect of German political life" (Norton, 1994, p.243, see also Lehbruch, 1992).²¹

4.6 Excursus: The Influence of Environment-Related Regulations Issued by the European Communities (E.C.)

At the level of the European Communities (E.C., or European Union, as it was renamed after the Treaty of Maastricht), environmental protection as a responsibility was established as late as 1972 on the basis of a far-reaching interpretation of the EEC treaty of 1957, the so-called Treaty of Rome, which mainly has the function of harmonising the economic policy of the member states (see Rehbinder & Stewart, 1985). One year later, the first of a total of five E.C. Environmental Action Programmes—policy statements of the Community—was established. A wave of E.C. environmental legislation followed, almost exclusively in the form of directives²², which have to be implemented and enforced by the member states within a fixed period of time. The

²¹ On the concept of theoretical categorisation and the empirical face of *Politikverflechtung* see Scharpf, Reissert & Schnabel, 1976.

²² Directives are addressed to the governments of the member states. With regard their to implementation it is the *goal* of the direction that counts. The *way* in which this goal is to be achieved is not fixed and can be decided by the national governments.

general rule is that national legislation is subordinate to E.C. legislation. This limitation of national sovereignty is not in conflict with the German Constitution (Art. 24, sec. 1 GG).

The E.C. environmental legislation was vaguely and sometimes confusingly based on some Articles (especially Art. 2) of the Treaty of Rome.²³ This situation was improved by a series of amendments enacted by the Single European Act of July 1, 1987, which granted the E.C. environmental policy and law making powers. Here, explicit reference is made to environmental policy responsibilities (see MURL, 1990: 73ff.), in particular in Articles 130r-130t listed under a new sub-title VII, "Environment", in part III of the EEC Treaty. These articles enumerate the E.C.'s environmental policy objectives, the basic means for their implementation, and the specific powers of the responsible E.C. institutions. In addition, Article 100 A, which was also amended, requires that a high level of environmental protection be ensured in all E.C. measures of harmonisation relating to the establishment of the single market. It is especially interesting that this article permits the E.C. Council to act by qualified majority.²⁴

Evaluated on the basis of tangible effects, E.C. environmental policy has a poor record (see MURL, 1990, p. 83ff.; Weidner, 1987; Hey & Jahns-Böhm, 1989).²⁵ Not for this alone, the E.C.'s environmental policy is heavily criticised. Strong criticism is also directed towards the "centralist pattern" of the E.C. decision process (see Zimmermann & Kahlenborn, 1994) and its general bias towards economic interests. Members of the European Parliament have pointed out to the fundamentally undemocratic structure of the E.C. decision-making process and blamed the superior legal and organisational position of the executive branches in influencing policy-making and legislation. As a rule, the national government negotiates and participates in basic decision processes at the supranational level.

This kind of criticism is mirrored at the regional and local levels of the member states, because the democratically elected bodies at these levels have only a small chance (due to legal and material restrictions) of controlling and supervising the policy-making activities of the Federal Government in "Brussels". (This applies, in particular, to non-governmental organisations.) In Germany, these problems are labelled as an undermining of the constitutional rights of a federal state, especially one based on local self-government. As a certain remedy for this structure which disadvantages "decentral bodies" some form of participation and consultation between the German federal states and the Federal Government has been established (see Reh-binder, 1989). The ratification law for the Single European Act stipulates that the Federal Government must inform the Upper House comprehensively and without delay about all planned activities of the E.C. that could be relevant for the states and that in all relevant matters it must ask the states for their opinions (and consider them).

²³ Article 2 was re-formulated by the Treaty of Maastricht 1992. Now it explicitly sets "sustainable and non-inflationary growth respecting the environment" as a goal of the European Communities.

²⁴ These provisions were modified and amended by the Treaty of Maastricht. Among other things, majority voting was introduced for most matters of environmental policy.

²⁵ There are some noteworthy exceptions. See, for example, the case of exhaust standards for small cars in which the European Parliament played a progressive and effective role (Holzinger, 1995).

Furthermore, some German states have established offices in Brussels and begun to delegate "observers" and representatives to E.C. institutions. The Upper House has established an E.C. department to deal with urgent E.C. proposals. However, this has not been able to solve all problems concerning the weakening of powers. Therefore, the states succeeded in introducing a "subsidiarity principle" when the Treaty of Maastricht was debated. This is meant to guarantee the federal principle in the European Union (created by this treaty). However, the states were not given the right to initiate court proceedings against the E.C. Council and the E.C. Commission (Brunner, 1993).

Criticism of the "centralist bias" of E.C. policy in general (see Zimmermann & Kahlenborn, 1994) and the "economic bias" of E.C. environmental policy has not subsided. The concept of the Unified Internal Market (Commission of the European Communities, 1985), especially its evaluation by the so-called Cecchini Report, (see Cecchini, 1988) was grist to the mills of those who consider E.C. policy to be dominated by economic interests (see Hey & Jahns-Böhm, 1989, with many references). At the moment it cannot be concluded whether fears are justified that there might be an even greater centralist bias subsequent to the explicit introduction of a "subsidiarity principle" (Art. 3b) to the so-called Treaty of Maastricht (Treaty on European Union, signed in Maastricht, Netherlands, 1992), which provides for more regional, local, and, partly, national autonomy with respect to E.C. policies (Sbragia, 1992). At least, the Maastricht Treaty introduced important institutional and jurisdictional changes which could serve as a basis for improving environmental policy (and raise the influence of federal states). With Maastricht, the environment has acquired full status as a policy area and is one of the Union's priority objectives. It will take some time until a reliable judgement of the new provisions and their effects on the federal principle in Germany can be made.

5. Evaluation of Environmental Policy from Various Perspectives

The previous chapters have demonstrated that in the past twenty years a broad and highly complex legal and institutional system has been developed in Germany to cope with environmental problems. At all levels of the federal systems specific environment-related tasks have been institutionalised. Not only have the public institutions dealing with direct and indirect environmental issues grown enormously but the administrative staff and public expenditure have also increased. In the private sector of the economy, a similar development has taken place. By international comparison, Germany ranks among the leaders in terms of public and private expenditure for environmental protection (OECD, 1994). And it certainly belongs to the group of countries with the largest output of highly detailed legal regulations. Has all this "made a difference" in the sense that environmental quality has improved? And is there reason for optimism concerning future trends? Or does the iron law still apply that institutions are getting bigger and the environment is getting worse?

The diversity and complexity of the areas of responsibility in environmental policy make it very difficult to arrive at an overall evaluation, especially if policy outcomes and consequences, and not only policy output, are taken into consideration. I therefore consider it legitimate to use different perspectives and draw upon various judgements by experts.

5.1 Judgements by Expert Groups

The most comprehensive assessment of the present government's environmental policy was published by the Council of Environmental Experts in two reviews (SRU, 1987b, 1994a) and a special report (SRU, 1989).²⁶ The measures and outcomes of the period up to 1986 are judged with ambivalence. The SRU was especially positive about the clean air policy measures, the construction of sewage treatment plants, the ban on leaded gasoline, the commitment at international level, and some of the programmes offering economic incentives. The council stressed, however, that these things did not satisfy the expectations of the population:

The concern about the condition and future of the natural environment is widespread amongst the population of the Federal Republic of Germany. The assessment is even more pessimistic today than it was described as being in this council's environmental report of 1978. . . . The capacity of the decision-making, business, and scientific communities to solve problems is viewed with increasing scepticism (SRU, 1987a, p. 8; see also Dierkes & Fietkau, 1988).

The SRU especially criticised the lack of economic and flexible instruments in the repertoire of environmental policy. The council also cited major shortcomings in the gathering and publication of environmentally relevant information, in nature conservation, landscape planning, the protection of the soil and ground water, noise abatement, and the protection of food from impurities. It was certified that agricultural policy was highly lax in taking environmental protection concerns into consideration and was contributing more and more to environmental pollution. The SRU expressly called for greater clarity and openness in the decision-making process of environmental policy, especially in the procedures for setting maximum permissible levels (SRU, 1987a, p. 61). The cleaning up of hazardous waste sites was seen to be gravely deficient (SRU, 1989, pp. 5, 23).

The SRU did not formulate an unequivocal overall judgement of the quality of the environmental policy measures, but it did at least consider environmental policy to be on the right path:

Initial major successes of general environmental protection are clearly emerging, but shortcomings, failures, and delays on the way to a better environment are becoming just as plain. The road being taken is proving to be correct, but it must be followed more consistently (SRU, 1987a, p. 5).

In spring 1994, a long time after the previous report in 1987, the SRU presented a comprehensive report on environmental policy in Germany and on comprehensive

²⁶ The most recent assessment of the Council of Environmental Experts (SRU, 1994a) was made available to the public in late spring 1994 and could only partly be considered here. Our comments are largely based on the summary of the 1994 comprehensive environmental report on the environment (SRU, 1994b).

environmental policy issues and ecological matters (SRU, 1994 a, 1994 b). Apart from the section entitled "On the state of the environment in Germany" and an evaluative analysis of environmental protection in selected problems areas (environment and traffic, environment and agriculture) another important chapter looks at "Fundamental reflections on environmental policy", particularly at the notion of a sustainable development, and includes an attempt to draw up and operationalise evaluation yardsticks to underpin this notion.

With regard to many areas of the environment the SRU repeats criticisms and demands from earlier reports. For example, once more the demand is voiced that the Federal Nature Conservation Act be re-designed and that some clauses favouring agricultural activities be eliminated. In the forward the SRU calls for more honesty about the influence of environmental protection regulations and measures on economic development in the discussion about "Germany as an industrial location" (*Wirtschaftsstandort Deutschland*) and advocates that there be "no time-out on environmental protection" (SRU, 1994 b p. 7) despite the unfavourable economic development in recent years "which has caused a strong wind to blow in the face of environmental policy" (p. 29).

With regard to the topic "environmental protection as a responsibility of the state", the SRU sees dealing with environmental problems on a local, regional, national and global level as "the central challenge to the state at the turn of the century". The regulations of the constitution on environmental protection do not "adequately meet the requirements necessary for sustainable development . . . nor the protection of future generations" (p. 13). The SRU therefore expressly recommends that "environmental protection as a state objective" be adopted, a principle which would acknowledge the fundamental position of environmental protection in the catalogue of state duties listed in the constitution.

The development of environmental policy in Germany was—in summary—judged as follows: the basic conditions for a comprehensive nature conservation concept, which is not confined to selected, individual areas, have further deteriorated. It is pointed out that damage to forests is "still as much a cause for concern", the objectives of soil protection are being jeopardised by what are known as "acceleration laws" on the one hand and the weakening of political instruments, such as environmental impact assessments, on the other; in the area of water protection there is a steady improvement in the quality of flowing water bodies; the environmental data situation still requires fundamental improvement; waste management policy is now viewed positively, as compared to the SRU report of 1987, the limitation of public participation in the field of waste management is nevertheless viewed with scepticism, and the necessity of a better supervisory system to prevent illicit export of waste is mentioned. As far as air quality control is concerned, the report identifies further success in reducing emissions, although traffic emissions are criticised and it is pointed out that "in combating damage to forests, particularly that connected to nitrogen oxide and ammoniac from road traffic and agriculture, no progress could be seen" (p.31). In the field of hazardous substances and health risks, measures taken, including legislative ones, have led to improvements, although deficits and gaps are still to be seen, e.g. labelling of products to indicate risk

to health, special testing of artificial mineral fibres and biocides which are used in the building product industry, regulations on impurities in indoor atmospheres. There is also a lack of up-to-date, comprehensive and comparative data on the environment. Regulations on environmental impact assessments were inadequate, particularly with regard to public participation. The environmental liability act is greeted as a step in the right direction but considered to be too narrow and furthermore it is thought appropriate that "a collective fund with state participation be set up to deal with environmental damage for which individual responsibility cannot be attributed" (p. 32). The central government is urged to develop with even more vigour a policy of co-operation in the field of EEC environmental policy, "which from the outset works on the basis of European solutions and introduces into the European debate German models for which consensus is theoretically possible." (p.33).

In my opinion the following two statements can be seen as the general conclusion of the SRU on the present state of environmental policy in Germany and its future development: "The environmental policy of the last two governments was not able to fully satisfy the demand for a concept of environmental policy which is cohesive and transcends individual sectors; most regulations and measures have still been concerned with individual environmental media. A number of more comprehensive schemes have, however, been initiated." (p. 32). "Without doubt there has been some progress . . . in individual areas of environmental policy. The development of a fundamentally new programme for ecological modernisation has not, however, been successful. In principle we still have a quite active, but nevertheless fundamentally technocratic and to some extent merely symbolic, policy of small steps." (SRU 1994 a, p. 177).

Overall, when comparing the two SRU reports of 1987 and 1994 it can be said that numerous deficits which had already been criticised were brought up again and the generally critical tone and ambivalent judgement of environmental policy have remained virtually unchanged. However, a number of positive developments are also emphasised: by international comparison the Federal Republic of Germany is placed amongst the leading countries in the field of environmental protection. However, in view of the discussion on "Environmental protection versus employment" which has been conducted intensely for years, even more so in recent years, it is striking that the SRU did not make this issue a central point in its report.

The SRU has not been alone in rarely coming to an overall clear-cut judgement of environmental policy, other recognised environmental experts have done the same. The statements pertaining to their specialised areas of expertise are clearer, sometimes being more critical than those of the SRU. Günter Hartkopf, for many years permanent secretary in the Federal Ministry of the Interior and the driving force behind the design and implementation of environmental policy, pointed to several serious problems in environmental policy and called above all for the abolition of "the privileges of causing damage" (Hartkopf, 1988, p. 112).

Numerous experts on environmental law likewise cite a relative lack of legal achievements by Conservative-Liberal environmental policy (for many of the opinions, see Kimminich, 1987; Kloepfer, 1988; and Reh binder, 1989a). The same is true, even more so, for experts on environmental economics. Be they scientists from independent

institutes (Sprenger, 1989) or government agencies (Wicke, 1989), most of them voice basic criticism of what has been accomplished thus far. The President of the Institute for Global Economics in Kiel, Horst Siebert (1989), notes the lack of "courage to use consistent free-market instruments in environmental policy." Financial experts Karl-Heinrich Hansmeyer and Hans Karl Schneider published a scathing attack on the government's environmental policy in their widely respected report. As they see it, the already narrow latitude for economic instruments continues to shrink because policy-makers and administrators see "their salvation, as far as environmental policy is concerned, solely in perfecting regulatory interventions" (Hansmeyer & Schneider, 1989, p. 4). Environment Minister Töpfer, who is also widely recognised as an expert, also points to major failings (Töpfer, 1988c) and qualifies some apparent advances by mentioning their problematic side effects:

... we demand a great deal of nature day after day—often more than she can take. . . . Indeed, in some spheres—like nature conservation and soil protection, clean oceans, and questions of the climate—we are actually at square 1 (Töpfer, 1988b, pp. 1-3).

He notes that problems are being shifted from one environmental area to another: "It is worth pondering the fact that our successful policy in controlling the quality of air and water is precisely what has led to an increase in problematic waste" (Töpfer, 1988b, p. 5). And he already sees a crisis in the sphere of waste disposal:

The current crisis in the disposal of wastes extends not only to the area of hazardous waste. Grave developments are also looming in the disposal of household refuse and miscellaneous types of mass waste such as sewage sludge. . . . The increasing export of waste obscures the critical situation (Töpfer, 1988a, p. 658).

The *OECD Report on Environmental Performance in Germany*, published in 1993, assessed environmental performance with regard to the efforts made and effects achieved in reducing overall pollution levels, management of natural resources, integration of environmental and economic policies, and strengthening co-operation within the international community (OECD, 1993, p. 3). The performance review gave an altogether positive judgement. It especially emphasised that: "The de-coupling of economic growth from the flow of several major pollutants over the past two decades is indicative of Germany's remarkable achievement in reconciling economic growth and environmental objectives" (p. 205). However, it also mentions that great challenges remain, e.g. in the areas of waste disposal, pollution from agriculture and transport, and that Germany's environmental concerns have increased substantially with unification. Concerning the policy approach, the OECD expert group doubted that the environmental achievements had been reached at the lowest costs and it proposed to improve priority setting and increase the use of differentiated measures linked to specific ecosystem characteristics. It also recommended expanded use of economic instruments, promotion of voluntary environmental agreements in the industrial sector, improvement of both public information on environmental developments and environmental data reporting by the Federal Government, especially with regard to availability of data for national and international use (OECD, 1993, p. 208-209).

5.2 In the Light of Cross-National Comparison

As a method of evaluating the environmental situation and the corresponding contributions of environmental policy within a country, cross-national comparison has proven to be very useful (Jänicke & Weidner, 1995). Comparing the state of the art of environmental policy in Germany with that in other industrialised countries, one finds that one or the other of the three basic principles (prevention, polluter pays, and co-operation) are pursued quite effectively in some countries but that no country is the leader regarding all three principles. In this context, Germany is at least above average.

If the trends in environmental quality, emissions, and the use of technologies to cut emissions are compared cross-nationally, then the environmental achievements under the Conservative-Liberal German government justifiably place the policies of that government among the world's best. Such environmental excellence is true of only a few nations, e.g. Sweden, Switzerland, Austria, the Netherlands and less clearly so Japan and the U.S.A.

In a European comparison, Germany occupies a leading position partly because the use of emission-reducing technologies is so widespread within the country. No other European country has developed anywhere near as great a capacity for reducing emissions of sulphur dioxide and nitrogen oxide. In Germany there are more low-pollution cars, with regulated and unregulated catalytic converters, than in other European countries. The share of lead-free gasoline in the total amount of gasoline used is larger than in any other European country. Germany's maximum permissible emission levels for air pollutants are generally among the strictest on the continent. This is also true of the permissible levels of sulphur in domestic heating fuel and diesel oil as well as the emission standards for waste incineration plants. The incineration of waste on the high seas and the discharge of liquid waste into the North Sea was completely halted in 1989, thereby simultaneously ending Germany's last forms of direct dumping and discharging industrial wastes into the oceans.

In a world-wide comparison, these measures put Germany among the most progressive states. She is also among the leaders in sewage purification (in West Germany over 90 per cent of the country's inhabitants are connected to the sewage mains, and 90 per cent of the sewage is purified biologically). The maximum permissible level for dioxine from waste incineration plants has set standards for environmental technology throughout the world. Germany was among the first countries in the world to stop the production and use of chlorinated fluorocarbons (CFCs). Approximately 3,800 individual environmentally sound products carry the environmental label introduced in 1978 (known as the Environment Angel), with many other countries and the European Community now adopting this ecological incentive for consumers and producers. Moreover, Germany's state research and development funding for renewable energies, such as solar and wind energy, ranks the country with the United States and Japan as a world leader in the R & D field. The same is true of expenditure on environmental protection as mandated primarily by environmental regulations aimed at industry and public budgets. The Packaging Ordinance of 1991 caught the attention of environmental policy-makers and administrators in many industrial countries. This ordinance, now in

its final stage, obliges the manufacturing, retailing and packaging sectors to take back all wrappings and containers and recycle them according to certain quotas.

Furthermore, the West German government is playing an increasingly vigorous role in international agreements by working to set higher-than-average objectives and committing itself to them. This attitude is true not only in the E.C. context—albeit with important exceptions (see Hérítier, 1993, p. 31; also Hérítier et al., 1994)—but in the larger international framework as well. This became especially noticeable at the UNCED Conference in Rio in June 1992, where the German Minister for the Environment played a dynamizing role. Further examples are the implementation of the agreement on long-range air pollution (the Helsinki and Sofia protocols), the Vienna agreement on protecting the ozone layer, and the Montreal protocol, which established measures for reducing substances that destroy the ozone layer, as well as collaboration to protect the North Sea and the Baltic.

Furthermore the "principle of precaution" has served as a model for political and legal developments both at EEC level and generally in the international arena. The idea of sustainability and sustainable development probably received a good deal of inspiration from Germany where the term *sustainable* has a long tradition in forestry (SRU 1994 a, p. 46). Unlike in the case of *Umweltschutz* which is a translation of the American term "environmental protection", we could now see a German term becoming the basis for one of the most important concepts in the global environmental discussion.

Passed in June 1990, the concept for reducing CO₂ emissions, which threaten the global climate (the greenhouse effect), and the demanding goal (by 2005 CO₂ emissions are to be reduced to 25 per cent of the 1987 level) are major advances towards an active and progressive global environmental policy.

According to a report published by the Federal Ministry of the Environment in March 1994 (see UMWELT, BMU, no. 6/1994, pp. 226ff), the CO₂ emissions in Germany have dropped by almost 16 per cent since 1987, i.e. the energy-related emissions dropped from 1.06 billion tonnes in 1987 to 894 million tonnes in 1993. However, while levels dropped by 48.4 per cent in Eastern Germany, they rose slightly, by 0.1 per cent, in the Western states, although it must be said here that the population rose by around 7 per cent over the same period. The main factors for the considerable reductions in CO₂ in the Eastern states are the economic re-structuring process, the fall in the very inefficient use of energy, the partial replacement of lignite by fuels with lower carbon content and, above all, the virtual collapse of many businesses and factories.

Based on a study conducted by the *Fraunhofer Institut für Systemtechnik und Innovationsforschung* which concluded that Germany does have the potential for reaching its goal of reducing CO₂ by 25 to 30 per cent by the year 2005, the Minister of the Environment, Klaus Töpfer, said that he expected Germany to reach this goal. This optimism is frequently not shared by experts from many other political parties and environmental organisations; they particularly criticise the slow implementation of the CO₂ reduction programme, the low level of funding of renewable energies by the federal state and inadequate measures to lower CO₂ emissions from road vehicles (see *Ökologische Briefe*, no. 21/1994, p. 3).

The CO₂ concept has the potential to put important segments of the national economy on the road toward the "ecological modernisation" that environmental experts have long been urging (Jänicke, 1988). Through activities such as these, the environmental policy of Germany's Conservative-Liberal government is becoming one of the world's most progressive. Granted, the special situation of the Federal Republic of Germany also demands greater effort to protect the environment than is the case in many other countries. Germany has one of Europe's highest population densities, the highest degree of industrialisation, one of the densest transport networks, a large share of the environmentally problematic industrial sectors and a high as well as increasing volume of traffic. Nevertheless, one must recognise the nation's efforts to improve the environment and environmental policy.

Being categorised as one of the international leaders in environmental policy does not preclude the continued existence of massive environmental problems in Germany, especially since the unification of East and West Germany. Nor does it preclude the possibility of learning from more successful strategies and regulatory instruments used in other countries, especially from their failures with technocratic policy. However, this kind of "political learning" apparently does not come easy to the Federal Government. Preaching to others instead of learning from them seems to be a distinct feature, rooted in the political culture, of German politicians, administrators—and the environmentalist elite.

As for the future of environmental policy, a certain degree of pessimism (with respect to more progressive activities) is justified by the following developments:

1. Since the peaceful 'revolution' in the former GDR, the general economic, social and political context has changed decisively. The huge social and economic problems associated with unification have become the foci of general political discussions and have obscured the environmental debate. While environmental questions remain priority political issues—though ranking lower in public opinion surveys (Roth, 1994, p. 7-8)—the 'Germany' debate and activities linked to it as well as asylum seekers and increased xenophobic activities now compete with environmental responsibilities and detract attention and resources (time, money, and know-how) from the environment.
2. In the economic sector there is a growing tendency to challenge existing environmental regulations, especially procedural regulations providing the public and third parties with participation rights in planning and permit decisions on large technological developments. Economic interest groups justify their demands for lower environmental standards with the steep downturn of the business cycle, increasing unemployment and competition with foreign countries. In fact, in recent years Germany has been suffering the worst recession since the post-war years. In 1993 a heated debate was initiated by business federations on the negative influence of—allegedly too strict—environmental regulations on Germany's attractiveness for economic activities and the competitiveness of German industry. The Minister of the Environment responded to this challenge by pointing to the results of a study he had commissioned. This study—prepared by two independent economic research institutes (*Rheinisch-Westfälisches Institut für*

Wirtschaftsforschung = RWI, *Deutsches Institut für Wirtschaftsforschung* = DIW)—showed that, in an overall balance, environmental protection measures are not largely responsible for the present economic recession. They conceded that there are some negative impacts. However, by almost all relevant economic criteria the advanced environmental policy not only has had positive overall effects but has stimulated the modernisation process of the economic structure in Germany (Blazejczak et al., 1993; Deutscher Industrie- und Handelstag, 1993; Töpfer, 1993; Voss, 1993).

In comparison with the challenge of environmental policy in the seventies, to which environmental politicians and administrators reacted on the whole defensively, a more pro-active policy of information is now being operated through which the particularly positive effects of environmental measures are being emphasised. This is carried out in particular by the Federal Ministry of the Environment and the Federal Environmental Agency. Both institutions also commissioned and published numerous "counter reports" which were intended to take the wind out of the sails of critics from industry. Especially noteworthy in this context is a booklet called *Umweltschutz—ein Wirtschaftsfaktor. Sieben Argumente gegen eine Vorreiterrolle im Umweltschutz—und was wir davon halten.*²⁷ Using the results of numerous research projects and comprehensive statistics it shows that environmental protection measures have generated a flourishing market in environmental technology, that there have been no cases of a company re-locating a factory abroad solely due to environmental protection requirements, that the modernisation of industrial structures, particularly in Eastern Germany, is being stimulated and numerous jobs created. Estimations show that about 680,000 people are employed in the various environmental sectors. This figure is expected to rise to about 1.1 million persons by 2000. It also proved that environmental protection measures place little strain on the economy: expenditure on environmental protection measures account for only 1.6 per cent of GNP (1990), of which half comes out of the public coffers anyway.

With regard to the aggressive reaction to the "economic challenge" of environmental policy, a declaration issued in November 1993 should also be given particular mention. It was initiated by the Minister of the Environment for Saarland and issued jointly by all the ministers of the environment at state and federal level and representatives of environmental protection and conservations associations. They all strictly reject the "pause for breath" in environmental policy being called for by industry and even go on to propose more far-reaching environmental protection measures (introduction of a tax on primary energy, gradual raising of tax on mineral oil, elimination of subsidies which are ecologically unsound etc.).

Yet, it cannot be overlooked that environmental policy is coming under increasing pressure. The SRU confirms this in its latest report (1994a, p. 178): "The economic recession and the deep economic restructuring have caused a strong head

²⁷ "Environmental Protection—an economic factor. Seven arguments against taking a pioneering stance in environmental protection—and our response to them."

wind for environmental policy . . . the fears of stagnation in environmental policy, or even of an "ecological counter-reformation" should therefore be taken seriously."

3. For a certain period of time, the West German environmental movement and especially its political organisations (Green Parties, Alternative Lists) showed signs of political fragility. Because of heated ideological controversies between various factions, especially between the so-called realists and fundamentalists, the movement had lost some of its capacity for strategic thinking and direct political action. A certain process of ideological clarification (towards "realism/pragmatism") has, however, begun within the Green party, triggered particularly by the resignation of some of the leading party members on the fundamentalist-ecology wing (people around Jutta Ditfurth) who have formed their own party (Ecological Left/Alternative List) and the radical left wing, some of whom have joined the PDS (*Party of Democratic Socialism*) (see on this the standard work on the Greens: Raschke, 1993). Furthermore, there are some basic differences in ideology and commitment to environmental responsibilities between Western and Eastern green movements and parties, which are still—even after the unification of the leading parties ("Bündnis 90/DIE GRÜNEN") in 1992, formally sealed in May 1993—not completely solved and which could hamper their political success in national and state elections.²⁸ However, in spring 1994 there were two states with 'red-green' governments: in Lower Saxony²⁹ and, subsequent to the January 1991 elections, once more in Hesse, where the 'historic' first red-green coalition government had collapsed in 1987 and been replaced by a Conservative one. Two states (Bremen and Brandenburg³⁰) are governed by a 'red-green-yellow' coalition of Social Democrats, Greens, and Liberals. In the federal state of Saxony-Anhalt the Social Democrats and the Greens decided to form a coalition after the state elections of June 1994. The Greens have put up the Minister of the Environment. After a period of decline, recent elections, especially at local level, demonstrate a

²⁸ In the first combined German elections in December 1990 the traditional (West German) Green Party suffered severe losses and did not get the 5 per cent of votes required to enter Parliament. During the first free national election in the GDR on March 18, 1990, explicitly ecological parties attracted only a very limited number of votes and mandates in the national parliament (*Volkskammer*): the 'Alliance 90' received 2.9 per cent of votes (12 seats), the 'Green Party/Independent Women's Association' 1.96 per cent (8 seats), Democratic Emergence—Social and Ecological' 0.94 per cent (4 seats)—and this in spite of extreme environmental burdens suffered by the population in the GDR over decades. In the local elections of May 6, 1990, these groups did somewhat better, but overall their support has remained rather limited. In comparison, the Conservative parties gained considerably more votes; in the national elections the Conservative Christian Democratic Union became the strongest single party by far. In the national elections of October 16, 1994, the "Greens" once again showed a weak performance in the five new states (4.3 per cent, including East Berlin). However, East and West taken together they won 7.3 per cent of votes.

²⁹ Since the Social Democrats gained an absolute majority in the March 1994 elections to the state parliament, they have been governing alone. (But here too the Greens gained 2 per cent more than in the 1990 *Land* elections, reaching a total of 7.4 per cent).

³⁰ In March, "Bündnis 90/DIE GRÜNEN" left the three-party coalition government in Brandenburg because of conflicts about the Prime Minister's unclear involvement with the former GDR system. In the state elections in September 1994 they experienced a strong loss in votes (they won only 2.9 per cent) and therefore had to leave the state parliament.

certain stability, or even growth, in the support enjoyed by the Greens, and similarly the elections for the European parliament in June 1994 saw a gain in votes for the "Alliance 90/Green Party"; they were able to double their number of MEPs from 6 to 12, which represents 10.1 per cent of the votes. In the national elections in October 1994 they won 7.3 per cent of the votes making them the third largest party in the national parliament.

The above analysis of past environmental policy in the Federal Republic combined with an evaluation of current trends lead to the conclusion that there have been impressive achievements in environmental protection, especially in comparison with other countries (see Jänicke, Mönch & Binder, 1992). Nevertheless, there are tremendous challenges ensuing from pollution accidents in the chemical industry, the 'waste management crisis', the increasing air pollution by road traffic, the global problems and the task of cleaning-up, even de-contaminating, large parts of the former GDR in the face of the severest recession for decades, combined with increasing opposition from industry to some existing and proposed environmental measures and instruments. A general roll-back of environmental policies, however, has not been demanded by economic interest groups.³¹

6. Analysis of German Environmental Policy

The effects of environmental policy, described in the preceding chapter, are the result of an interplay between political, administrative, legal, economic, social, and ideological factors and structures shaping the mode of policy-making and implementation, i.e. the policy style, in the environmental policy area. A systematic theoretical treatment of this complex of topics is a formidable task which would require a separate study. It is not possible to consider all relevant variables and structures. This study is to be seen as providing the ground work for this. Therefore, I will consider only some of the categories usually mentioned in political science studies (e.g. Jänicke, 1990b; Weale, 1992a) as being fundamental to policy analyses in the field of environmental policy and politics.³² These categories will be discussed here in relation to German environmental policy. This chapter will also touch on specific features of the German political system—e.g. the court system, electoral system, the Green Party, and neo-corporatism—and their effects on environmental politics. These features are then examined in more detail in the following chapter. In 6.2 the essential features of German environmental policy, the predominant style and recent considerations of reform on the level of the Federal Ministry of the Environment are described. Chapter Eight then gives a brief and tentative response to the question of to what extent German federalism has had an influence.

³¹ It is too early to speculate here on the consequences that may arise for environmental policy from the wafer-thin majority won by the conservative-liberal coalition in the national elections in October 1994 and from the appointment of Angela Merkel as the new Minister for the Environment in November 1994. Minister Merkel, a 38-year old physicist from East Germany and former Federal Minister for Women and Youths, has no background experience in the environment sector.

³² For an interesting discussion of general analytical criteria for the evaluation of political systems see Bühl, 1992, p. 9-45

6.1 Discussion by Basic Categories

From several international comparative studies, Jänicke (1992) has derived five complex categories that proved to be relevant for explaining a country's environmental performance and policy style: problem pressure, economic capacity, capacity for political integration, innovation capacity, and strategic capability of government. These categories as well as an additional one—external restraints—are considered in the following analysis.

1. *Problem Pressure*: Due to the highly industrialised economy, the large sector of pollution-intensive industries, high population density and the degree of urbanisation, motorisation and traffic in Germany, the "pressure of problems" (pollution levels, polluting accidents etc.) was, and still is, medium to high. Although pollution levels were even higher in the 1960s (high air and water pollution levels in various industrial regions), they were not capable of creating corresponding "political pressure". It took a deeper public consciousness to transform the pressure of environmental problems into a political pressure high enough to become a relevant factor in stimulating systematic governmental action. This happened in the course of the 1970s. But despite broad legal and organisational measures and some remarkable achievements in pollution control, the overall pollution load continued to increase during the 1970s and 1980s. Several serious pollution incidents and the growing recognition that pollution threatened human health and, particularly conspicuously, forests ("*Waldsterben*") effectuated heavy pressure on government and industry to adopt effect-oriented policies. Overall, it can be said that a medium to high level of pollution was a fact, not fiction. As an explanatory factor for the fundamental environmental policy changes, however, it was only relevant after it had become a public issue due to frequent media coverage, increasing research activities and mobilisation of the public by environmentalist groups.³³ With the foundation of green parties, environmental issues also became a matter of party political competition.
2. *Economic Capacity*: Advanced economies exhibit not only a high level of strain on the environment but also a better capacity to take action against it. The type of economic structure in a country is also important for its innovation capacity. If, for example, the economic structure is shaped by "selective monopolies" (strong power position but low flexibility), conditions for an ecological modernisation of the economy are rather poor (Jänicke, 1992).

Germany's economic capacity is comparably high. There are, of course, old-fashioned, and highly subsidised, branches of industry, such as iron & steel or coal mining, considerable ups and downs in the business cycle, and at present, the country is facing a deep economic recession. Yet, compared to other OECD countries, Germany was—and still is—basically a rich country with a competitive economy, a flourishing "eco-industrial" complex, which also means that there is a high expertise in pollution abatement technology. Nevertheless, both the environmentally problematic industries as well as fluctuations in the economic cycle

³³ These and some other contributing factors are dealt with in some detail in chapter 7.

have had a strong influence on environmental policy decision-making. In the 1970s the economic slump after the first oil price crisis led to an "anti-environmental coalition" of high-ranking government officials, business federations and trade unions with the aim to stop or, at least, slow down progress in environmental decision-making. It was, however, not very successful because, even under worsening economic conditions, the majority of the Germans still gave environmental protection high priority.

Environmental groups, organisations and parties—mushrooming at that time—exerted strong pressure on industry, government, and administrators at all levels. This forced the Federal Government to launch an ambitious clean-up programme, directed, in particular, at powerful branches of industry, such as public utilities and the automobile industry, at a time (early 1980s) of rising unemployment (but improving general economic conditions). In the 1990s, influential business federations and government bodies again tried to postpone environmental policy endeavours by putting more emphasis on economic concerns at the expense of environmental protection. It is not yet possible to determine how successful these activities will be. But this much can be said: political elections held in 1994 demonstrate that public interest in environmental matters has not waned (e.g., in some elections the Greens have gained considerably). This may explain why a growing number of industrialists have actually chosen a "no-regrets" option, i.e., in important industrial sectors (such as chemical, automobile, pulp and paper) environmental technologies and processes are continued to be further developed. Furthermore, a majority of independent experts are convinced that progress in the environmental modernisation of firms is feasible under currently bad economic conditions because of the high degree of environmental capabilities (know-how and experience) that has already been achieved.

3. *Integration Capability of the Political System:* In the 1970s German society became deeply divided over environmental issues. Soaring environmental conflicts, resulting in mass rallies and a violent and increasingly militant protest movement, posed a significant challenge to established political institutions and their capability of achieving consensus on fundamental new issues. Influential conservative as well as progressive theorists shared the perception that the approaching ecological crisis with its potentially disastrous political consequences could only be avoided by a radical change in the economic and politico-administrative system. Not only the existing political parties and governmental institutions perceived the intensive conflicts around environmental and nuclear issues as a threat to the political system. Those were the times, when members, and sympathisers, of the New Left honestly believed that there was a chance for a fundamental change of the established political system with the support of the environmental movement.

After several unsuccessful attempts by the established political institutions at marginalizing and discriminating against the environmental movement, the traditional structure of interest relations, including government branches, business federations, trade unions and conventional political parties, with its strong

commitment to economic growth and social welfare became weaker and weaker in their ability to create and stabilise a nation-wide consensus on the fundamental goals of society. As a result of the increasing political costs accruing from the exclusion of environmental interests from decision-making³⁴ and in the face of challenges from newly-founded green parties, the neo-corporatist network opened some channels and reluctantly gave in to some new ideas on the relationship of the economy and the environment and allowed access to established institutions for environmentally minded persons. This was not at all the result of an autonomous, self-induced process of political and institutional learning but rather the result of severe conflicts, political pressure from a politicized environmental movement, and the weakened power positions and increasing political costs the established neo-corporatist power elite would have to face if it stuck to the old ways of policy-making. As basic preconditions that prevented the established political institutions from successfully repressing the new political conflicts and challenges the work of independent public media and their keen interest in environmental conflicts, the legal system (highly independent from government) with an open mind to environmental problems, especially at the lower administrative court levels, and the existence of a proportional election system at all levels of government should be mentioned.

The process of institutional change to include environmental interests took rather a long time. This could be explained by the extreme inertia of the neo-corporatist power cartel, based on "social partnership" and the avoidance of fundamental conflicts between big business, government, political parties and trade unions, especially the participation of the left party (later also in government) which increased the rigidity and unresponsiveness of the established political parties to new "post-materialist" issues and their proponents. This neo-corporatist system was deeply shaped by the need for consensus politics resulting from substantial federalism and the electoral system, but it also has certain roots in the German political culture. The neo-corporatist system contributed decisively to the rapid economic growth and the high political stability after World War II. (Schmitter & Lehmbruch, 1979).

The system of proportional representation for election of members of parliament makes it difficult for any single party to gain enough seats in the parliament to form a government by itself. Thus, in most cases there is a need to form coalition governments. This system encourages political bargaining and consensus politics at and between all levels of government because it also applies to all federal states and, by and large, all local bodies. Furthermore, the strong position of the federal states within the German political system, the changing majorities in the Upper

³⁴ Delwaide (1993, p.245), partly quoting H. Siegemann, describes the differences in this respect between Germany at this time and the U.S.A. as follows: "Generally, the German political system has proved less porous to public pressures than that of the United States: political success requires a great deal of party discipline, state intervention is systematic and substantial, notably in energy policy, and the labour movement is powerful. Hence, whereas the American electoral system and Congress have been more open to the influence of interest groups, but virtually closed to an environmental party, in Germany the opposite has been true."

House (it can happen that the majority of states are governed by members of a political party that is in opposition to the Federal Government. This is the case now and was once before in the 1970s), and the partly incongruent interests of the states, often crossing party lines, have led to a network of close co-operation between Federal Government and states, and to the creation of a "consensus area" to avoid basic conflicts. This makes it hard for new social movements to get their ideas and objectives onto the precariously balanced political agenda or to find groups inside the politico-administrative system who would be willing to take up their demands, especially if these are basically in confrontation to the established area of consensus. In principle, these factors produce a high degree of closedness of the neo-corporatist power cartel, to which the traditional left party was also a member (Lehmbruch & Schmitter, 1982).

This low degree of flexibility—which does not mean a low degree of integration capacity—of the political system, is mainly a result of neo-corporatism and co-operative federalism, has encouraged the rise of new social movements and environmental parties. It has also contributed to the radicalisation of environmentalism. However, some other features of the political system have helped to create access to the decision-making process and, finally, led to the integration and institutionalisation of fundamental environmental ideas. Chances for the environmental movement to enter the politico-administrative system were improved by the system of proportional representation in political elections and by a relatively generous funding system. Once the so-called 5 per-cent-hurdle is overcome (to enter parliament, a political party needs at least 5 per cent of the votes,) a party is entitled to official funding for its parliamentary and other work. Furthermore, all political parties campaigning in elections and attaining more than 0.5 per cent (!) of votes get financial compensation for their activities in proportion to the number of votes they get, irrespective of their actual expenditure. In December 1993 the Parties Act of 1967/1988 was amended. The new Act came into force in January 1994. This created a completely new system of state financing for political parties. The parties now receive state funds, the level of which depends (as under the old system) on their election success (votes received) and on the level of membership dues and donations received. For each vote received in elections for state parliaments, the *Bundestag* and the European Parliament the party receives 1 deutschmark and 1.30 deutschmarks for the first 5 million votes. In addition to this, for every deutschmark received in membership dues and donations, the state coffers add 0.50 deutschmarks.

The system of federalism, in its turn, provides many opportunities for newly founded parties to "learn politics". Most of the green political activists learnt their political skills at the local and state level before they participated in federal and European elections.

To sum up: With regard to new "post-materialist" issues and social movements beyond the traditional area of consensus, the capacity of the German political system for integration *in the seventies* was low. This is also due to the fact that the Social Democrats refused to take up the "post-materialist" challenge. This is in

sharp contrast to the way they integrated the large parts of the "new left wing" which had emerged from the student movement of the sixties and to their integration achievements with regard to the new social "post-materialist" movements of the early seventies.

"However, already by the mid-1970s German Social Democracy proved unable to distance itself from the modernisation that it had been helping to mould decisively for about a decade, a modernisation that was now being questioned by steadily widening sectors in society" (Delwaide 1993, p. 244). Only after acute political conflicts and much turbulence was access achieved. And it took again some more time before the political representatives of the environmental movement, the green parties, were accepted by the political power cartel as a legitimate part of the political system.

The party-political system has been as significantly altered by green politics as the German political culture by environmentalism.³⁵ The system has become much more open to new political values and minority issues. Starting in the 1980s, formerly radical "system critics" began to occupy jobs as ministers or agency directors, mainly in the field of the environment. The same applies to leading members of environmental organisations, such as Greenpeace or the Federation of Citizen Action Groups for the Environment. The penetration of established political institutions by environmentalism caused a general shift of priorities in favour of the environment. By and large, a new "*contrat social*" emerged in which environmental protection was a constituent part. However, this does not signify that the conflict about whether environmental protection should be a top priority of governmental responsibility has been settled once and for all, as the recent challenges from industry and influential politicians clearly demonstrate.

However, there are clear indications of changes in the environmental policy network towards an increasing co-operation among environmental organisations, public administrators of all levels and private enterprises, even strategic alliances. Examples for such a change are the co-operation between B.U.N.D. and Tupperware, Greenpeace's support for the East German company Foron for marketing a CFC-free refrigerator, the numerous expert opinions prepared by research institutes related to the environmental movement on behalf of public administrations, and many other cases where NGOs act as consultants to private firms (e.g., in ecology-oriented analyses of firms). The mutual statement of the B.U.N.D. and the Federation of Young Employers (*Bundesverband Junger Unternehmer—BJU*) calling for more effective environmental policy as well as the mutual declaration of the B.U.N.D. and 16 large and well-known enterprises in favour of an ecological tax reform have found great public attention. Moreover, there are already some organisations in which representatives of NGOs, public administration and private enterprises meet on a regular basis to discuss matters of common interest, to compromise on environmental issues and to make

³⁵ However, present research has not yet made clear to what extent the Greens have had a direct impact on concrete policy. It is assumed that their direct impact has been relatively weak.

arrangements for future co-operation (e.g., the Association for the Support of Environmental Impact Assessments). Prospects are good that these forms of co-operation will expand. At the European level this trend is reflected in the foundation of "European Partners for Environment" in 1994 made up by representatives of business, public authorities, research institutes and environmental organisations with the objective to foster green economics and sustainable development.

On the whole, the opportunity structure of the environmental policy network has changed over time in favour of the introduction of new and more effective environmental strategies, instruments and an increased co-operation of various actors in the arena.

4. *Innovation Capacity*: Innovation capacity is the capacity of relevant subsystems (institutions) of a society to perceive new problems, values and demands of a certain order (that might have an important impact on established modes regulating social and economic life), the ability of institutions to learn and adjust and their capacity to respond innovatively to new issues that could not be tackled by "routine practice". Many German institutions needed a rather long time to take up the ecological challenge in a positive way: the established political parties, enterprises, trade unions, public administration, and the larger university and non-university research institutes, including social sciences. Quicker in their response were the media, parts of the judiciary (administrative courts), and some branches of government, to mention just the most important ones. This slow response comes as a surprise, especially since other countries (USA, Japan) had already developed an advanced environmental policy and experienced harsh environmental conflicts (above all, Japan) as a reaction to having deliberately ignored the environmental consequences of traditional economic growth policy (Tsuru & Weidner, 1989). One would have expected a leading export-oriented nation, such as Germany, to have been more sensitive to such developments. It was mainly political pressure from the environmental movement and the competitive challenge of new, "alternative", "ecological" institutions that forced established institutions to modify their paradigms and organisational structures to include environmental protection aspects. By now, almost all traditional institutions—trade unions, political parties, business federations and individual enterprises, churches, professional and scientific organisations, private and public interest groups, public administration, the educational sector, etc.—have instigated organisational changes to adapt to the environmental challenge in such a way that it now seems justified to speak of an "ecologicalization" of established institutions, of course in varying degrees, sometimes virtually symbolic.

Furthermore, many new specialised environmental organisations have been founded, either within traditional institutions or independent ones. They are carefully observing and studying developments abroad, competing with each other to come up with new problem-solving strategies, and almost every year they propose a new "best" environmental policy instrument ("instrument of the year"). However, the present Conservative-Liberal government—with some rare

exceptions—remains quite unimpressed by this downright explosive development of proposals and concepts for an innovative environmental policy. It still prefers on the whole the same command-and-control approach that was practised by the preceding Social Democrat-Liberal government. On the whole, the prevailing policy concept still favours reactive and remedial measures as well as technologies that shift environmental problems from one medium to another or postpone them for future generations. Recently, however, there have been signs of a transition from primarily reactive, remedial measures to cause-oriented approaches, a more careful husbanding of resources, pollution prevention and sustainable development.

Revised environmental liability laws, passed by the German *Bundestag* in September 1990 after years of discussion, are one indication of a step in this direction. As far as environmental law is concerned, the introduction of strict liability, the principle by which fault or negligence is not considered in determining liability, the partial alleviation of the victim's burden of proof, and the extension of liability to cover damages incurred even by normal, properly functioning operations are improvements of more than conventional import. Given these regulations, owners of plants that might pose a threat to the environment could feel considerable pressure to avoid environmental hazards in the first place. The 1990 concept for reducing emissions of CO₂ likewise provides for measures to promote an ecological re-orientation of energy policy. The Packaging Ordinance of 1991 attracted world-wide attention. It obliges industry and suppliers to take back and recycle virtually all packaging, according to specified quotas. This ordinance is one of the rare cases of an environmental policy instrument being genuinely "invented" by the German Ministry for the Environment. Another invention is the "Green Dot" programme, named after the recycling logo printed on retail packaging. Under the ordinance manufacturers of consumer products pay a licensing fee for the "Green Dot" that is supposed to cover the costs for the private collection and recycling of packaging materials. The system is managed by *Duales System Deutschland*, a private enterprise founded to co-ordinate collection and recycling. By international comparison this system must be considered innovative, in spite of the various problems that have arisen with its implementation.

These approaches and policies may be promising, but they have yet to be fully implemented and tested. There has been a failure to capitalise on further opportunities to make the basic pattern of the environmental policy system more responsive to ecological concerns, as would have been feasible, for example, with the law requiring mandatory environmental impact assessments and regulations providing for public access to environmental data (Héritier, 1993; Weidner, Zieschank & Knoepfel, 1992). Furthermore, in the current West German government, no majorities could be mustered for such regulations as the right of environmental organisations to file class-action suits against measures which they believe are an objective contravention of existing environmental law. Such a right is supposed to encourage the participation of environmentally concerned groups and improve their legal position.

The advocates of introducing class action assume that particularly the environmental associations would be able to use this possibility of legal action effectively and usefully, to the benefit of environmental protection, as they are both close to the grass roots and have relevant expertise. They could thus help to take pressure off environmental authorities and to reduce the implementation deficit. The possibility of introducing class action in Germany has been hotly debated since the beginning of the seventies. It has been rejected on grounds of legal dogma: German administrative law expressly does not provide for the possibility of court action to implement the interests of the general public but only in cases where the "subjective" rights of an individual are in jeopardy. There are also fears that an "avalanche of court cases" would result, thus placing great strain on the administrative courts. Finally, it is said that the settling of disputes about public property is a matter for the administration and politics or the courts but not of societal organisations since that would imply considerable problems of legitimation.

The existing legal framework does not, however, exclude on principle the introduction of class action. This possibility has been used by several federal states to introduce class action in nature conservation law, albeit with strongly differing powers accorded to the nature conservation and environmental protection associations which have been recognised as having the right to take legal action (see Winkelmann, 1992).

5. *Strategic capability*: In the early 1970s, the German government demonstrated that it was highly capable of planning and co-ordinating a comprehensive environmental programme. Within a short period of time, German bureaucracy, in close co-operation with scientific experts and representatives from industry, created an impressive body of environmental laws and regulations. At the federal more than the state level, however, government has had—after the "legislation phase"—great problems with the purposeful and flexible application of policy instruments, especially with adapting existing policy instruments and programmes to changing political, social, economic and environmental conditions.

It is particularly striking that the Federal Ministry of the Environment—with one remarkable exception in the 1970s—has almost never tried to form strategic alliances with environmental groups and organisations to push through environmental objectives. As it seems, it has not yet found its true "clientele". This may be a consequence of the politico-administrative culture, one dominant feature of which is the legalistic and hierarchical thinking within German bureaucracy.³⁶ This, in turn, has its roots in prevailing German state theory in which the idea of hierarchical relationship between state and society is dominant. The logical consequence of this idea is that "the state" (via government) is seen as being responsible for virtually all areas of society and as being at the head of the hierarchy. Furthermore, the Minister of the Environment has not yet developed a

³⁶ However, at the local level, there has for some years been a trend towards new forms of co-operation (e.g. round table discussions, moderated and mediated negotiation; see Fietkau & Weidner, 1992) that provide for broader participation by environmental protection interest groups.

convincing strategy to counter adverse impacts on the environment expected to occur in connection with the Single European Market that came into being on January 1, 1993. But there are strong indications that in a broader international context the Minister is trying to use international environmental policy, which would also have to entail strategic coalition building, as a means to overcome obstructions in his own country.

6. *External influences:* Germany's environmental policy is in many aspects highly sensitive to developments in foreign countries and to global environmental policy. It shares borders with nine other countries; all of its major rivers have their sources abroad; it is dependent on the import of non-renewable natural resources; it is one of the world's leading export countries; and it is a member of several international organisations and, most importantly, the European Union—a supranational institution limiting its members' sovereignty in the field of environmental legislation and the development of policies directed at correcting national problems.

Whereas in the 1970s, the Federal Government frequently played a rather restrictive role in the international environmental policy arena, it became a more pro-active and progressive player in the 1980s as such a changed attitude seemed to meet the German self-interest better. There are also important areas in which German environmental policy making has been positively influenced by international developments, e.g. the laws on environmental impact assessment and access to environmental information, regulations on toxic waste export as well as policies against ozone depletion and global warming. And, last but not least, the most important stimuli for the development of a modern environmental policy came from abroad.

With regard to these six categories considered important for the specific development of environmental policy and politics in a given country, it can be said that in Germany there has been a remarkable (but slow) learning process, or at least a quite successful adaptation to the challenges. The Federal Government and many other institutions have improved their environmental policy performance and brought it into better balance with economic interests and institutionalised environmental conflict settlement. They have also succeeded in integrating a partly militant environmental movement that had been considered by leading social scientists as a serious challenge to the established political system, or at least were on the whole successful in channelling the wave of protest into institutional dispute resolution channels. However, due to the legalistic approach this was based on, the price paid was an increase in the number of disputes taken to court. This, and other changes in the environmental policy arena, has led to the development of increasingly non-controversial forms of conflict settlement. On the whole, there is a marked tendency towards more co-operation among environmental organisations, public authorities and enterprises. Recently even strategic alliances between NGOs and companies have evolved to foster sustainable development.

In contrast to the early phase of systematic environmental policy-making—which, by and large, was an "internally induced" learning process for governmental institutions ("active policy")—the subsequent phases of governmental activities have

been decisively influenced by "externally induced" developments, especially by political pressure from the environmental movement and competing green parties.

6.2 Policy Style: Criticism and Reform Discussion

6.2.1 Criticism by Various Experts

It is difficult to make general statements about the dominant policy style in German environmental policy. One of the reasons for this is that throughout the development of environmental policy changes have occurred which have also affected the policy style. Another reason is the specifically German type of federalism, with a division of powers between the central and state governments and vastly different types of problems, implementation agencies and party-political composition of governments at state level, so that it is virtually impossible to identify a single characteristic which would be valid for the whole of Germany. I shall briefly describe below several evaluations made by foreign experts on this subject, then go on to discuss the SRU's criticism of the policy approach and finally present my own short evaluation, primarily of the last ten years at central government level. This will then be expanded in the final resume. I shall conclude by describing the latest thoughts on reform at central policy level.³⁷

As a rule foreign experts come to the conclusion—despite an otherwise positive evaluation of the *results* of German environmental policy—that the primary instruments of environmental policy are still legal regulations with relatively little attention paid to economic instruments or to strategies of self-regulation. They also point to the juridicization of environmental politics, the "cult of expertise" (Weale), the close co-operation between policy-making elites in industry and government in programme formulation as well as between regulators and regulatees at the implementation level, and, as a consequence of these factors, relatively limited opportunities for public participation (Aguilar, 1993; Boehmer-Christiansen & Skea, 1990; Paterson, 1989; Richardson & Watts 1985; Weale 1992a, 1992b). Weale (1992b, p.179) has summarised this as follows: "The character of the environmental regulation that emerges from this mixture of elements is defined by a strong emphasis upon constitutional formalism, on the one hand, embedded in the preference for uniform emission standards and technical expertise on the other"

The SRU reaches similar conclusions. At numerous points in its report of 1994 it comments on legal, organisational, politico-sociological issues and on environmental policy instruments. It identifies a process of increasing juridicization of environmental policy since the beginning of the seventies which has led to largely negative tendencies: "German environment law has attained a density of regulations which—whilst being characterised at one and the same time by severe splintering and a high degree of subtlety—has led to disharmony, gaps in regulation and problems of competence,

³⁷ It was not possible to include a study by G. Lübke-Wolff entitled "Modernisierung des umweltbezogenen Ordnungsrechts" (Modernisation of environmental law) which was written for the Enquete Commission of the German *Bundestag* but had not yet been published at the time this article was written.

which absorb a lot of administrative energy and to some extent question the whole effectiveness of environmental law." (SRU, 1994a, p. 67). In this context it also speaks of "almost hectic legislation activities in recent years" and finds important on the other hand "the strengthening of the legal weighting given to environmental protection in other areas of politics, particularly in decisions taken in agricultural, energy and traffic policy." (SRU, 1994a, p. 67).

The SRU acknowledges that, in order to solve environmental problems in a modern, complex society, a theoretical political concept is necessary for a constructive implementation of ecological knowledge in the field of political activity. It considers the concept of "structural ecologisation" to be a comparatively well-developed politico-ecological modernisation concept, in the main developed by Jänicke (1993), which implies not only an ecological re-structuring of industrial societies but also a corresponding modernisation of the political system of taking action. It sees "the development and dynamisation of legal rules for action (liability rules, burden of proof, class action, rights to information, extended state goals) . . . and . . . the development of political, administrative and societal decision-making procedures (participation, co-operation, mediation)" as being part of this concept (SRU 1994a, p. 75). With this the SRU takes up, albeit with great restraint and yet explicitly, the proposals and results of environmental policy research which have been around for some time now (see Jänicke 1990b: German version 1986; Weidner 1988; recently: Jänicke and Weidner, 1994). For the current situation in Germany it is emphasised that "a fundamental change in political institutions with a view to implementing more dialogue-based structures . . . has, however, scarcely begun." (SRU 1994a, p. 76).

With regard to the instruments for environmental policy, continuity was found to exist in Germany in that traditional regulatory instruments are still those the most frequently used. Their lack of effectiveness is criticised as being due to serious implementation deficits (SRU 1994a, p. 139). The council advocates the increased use of economic instruments, which "have, however, to date been of only peripheral importance in German environmental law." (p. 140). Overall the council recommends that regulatory instruments be made more flexible and efficient, if necessary by means of deregulation. Here, however, care should be taken that these deregulation measures do not lead to a limitation of public participation. Using the example of the often criticised (especially by industry, politicians and administrators) length of time needed for licensing procedures it is of the opinion that this "is caused by the inadequate management of projects and procedures by the authorities and operators; the public has no particular part in this." Certain difficulties which arise from public participation can, the SRU believes, be accepted, since "environmental protection cannot simply be a matter of bureaucratic procedures but must be carried out in conjunction with the people affected even if in situations of conflict it is often impossible to reach a consensus." (SRU 1994a, p. 143).

The findings of the foreign experts and the SRU agree more or less with my own research results, which identify a bureaucratic, highly legalistic policy style with limited participation, based primarily on conventional regulatory instruments. This can be seen as a result of the traditional German state ideology still prevalent in the political

and administrative system. In this ideology, which is still highly influential, especially in cases where the state has to confront a legal crisis, the idea of a hierarchical relationship between the state and society is dominant, the logical consequence of which is that the state is seen as being responsible (and capable of being so) for virtually all areas of society and as being at the head of the hierarchy as well as being impartial towards all organised or non-organised groups in society. The philosopher Hegel, who had a great influence on the German ideology of the state, idealised the state, for example, as "the moral idea made reality;" bourgeois society was for him more an arena for private interests and thoughtless egoism.

6.2.2 Reform Discussion within the Political and Administrative System

The traditional, highly bureaucratic "regulatory approach" (*ordnungsrechtlicher Ansatz*) which is still dominant despite the fact that modern environmental policy in Germany now has a history dating back 25 years, has been under criticism from numerous experts, both from the world of academia and practice, for its inefficiency and lack of flexibility. Recently the government also began to review it systematically and to examine possible alternatives. With this the Federal Government is reacting above all to criticism from industry and from the environment ministries of the states, less so to the criticism from social scientists.

In a government report of 1994 (*Bundestags-Drucksache* 12/6923) some of the results of the review which have emerged so far are presented. This report says amongst other things that over-regulation in the field of environmental policy, particularly in the new Eastern states, has caused legal uncertainty and implementation problems. But surveys carried out in the environment ministries of the other states have shown that they too do not consider a continued development of federal regulations to be appropriate: "The flood wave of amendments to legislation, particularly in the field of air pollution control policy, is now so high as to be a hindrance to investment . . ." (p. 23). The criticism made by the Ministry of the Environment in North Rhine-Westphalia is even more unequivocal. In a brochure published by this ministry (MURL, 1993, p. 20), it is stated that, in view of the global ecological crisis, not less but more environmental protection measures should be implemented and ecological progress must be accelerated. Yet ecological progress is "in the meantime, due to the type, the abundance and the pace of change, being held back above all by environmental regulations issued by the central government and the EEC. They have now reached a level at which ecological progress is partially being blocked because ecological improvements often get stuck in the lengthy, complicated licensing and permit procedures . . . The administrative effort needed is constantly increasing whilst the effects are constantly diminishing."

The Federal Government's first response to this criticism was to pass new laws and amendments intended to speed up planning and licensing procedures. The reduction of public rights to participation which accompanied this was not criticised by environmental organisations only but also by the SRU, particularly in its environmental report of 1994 (see 6.2.1 above).

In connection with the implementation of the Act on Building Land and Facilitation of Investment (in force since 1.5.1993) the discussion of a fundamental reform of the way environmental authorities and environmental law are organised within the political and administrative system at both central and state level was intensified. Thus, with a great time lag, corresponding attempts by the *Bundestag* of 1976 (resolution of 15 January 1976) and of the Federal Government of 1983 (resolution of 13 July 1983) are looked at systematically. A decisive motivation for this was the demand made by the *Bundestag* at the beginning of 1993 (resolution of 12 February 1993) that the consequences of over-regulation be studied in depth and a resolution of the Conference of State Prime Ministers on the acceleration of planning and licensing procedures (resolution of 17 June 1993). Even before this, the Federal Minister of the Interior had set up an "Independent Committee on the Simplification of Legal and Administrative Procedures" which included the question of speeding up procedures for licensing plants and which presented its findings in November 1990.

In the foreground of the government's thoughts and plans—some of which have already been implemented—is the idea to speed up licensing of plants required under environmental law and to make the whole implementation procedures operated by the administration more efficient. With regard to the environmental administration's implementation procedures, one of the findings states that the essential cause of the length of licensing procedures is to be found in the internal administrative procedures of the competent authorities. This coincides with the findings of social science research on implementation which showed that in the case of major planning and licensing procedures there are often serious conflicts between the different authorities involved. In sum, the activities mentioned above represent the first major administrative reform in a long time. Overall the activities mentioned go back to the plans for reform in the area of administrative procedures on environmental matters which have been under discussion for some time.

The *Bundestag* has asked the government to ensure effective management of procedures by introducing new binding regulations. It mentions, *inter alia*, the following areas of regulation which should be reviewed:³⁸

- Applications meetings with all authorities involved in order to specify the documents required for licensing etc. One of the aims of this is to co-ordinate (clarify in advance) difficult procedural questions once an application has been received. In its opinion on this the government rejected making application meetings a legally binding requirement under federal law, considering it inappropriate as it would reduce the flexibility which already exists in practice in this area.³⁹
- The involvement of central contact points in the licensing authorities staffed by people with a co-ordinating function (project managers) and if possible of a contact

³⁸ For a detailed description see *Bundestags-Drucksache* 12/6923 of 28.2.1994, pp. 11 ff.

³⁹ There are already regulations on so-called pre-application meetings in the air pollution control legislation (Article 2, para. 2 and 9 of the *BImSchV*); they are implemented by the licensing authority responsible. There are also regulations of this kind in the law of the federal states. The pre-application meetings take place before an application has formally been made and help to clarify difficult procedural questions; they include consultation with the applicant.

person in the company making the application. The project manager should be responsible for the entire licensing procedure. The opinion considers this instrument to be useful, yet making it mandatory under federal law seems to present a legal problem as it would affect the division of administrative power between the central government and the states. Thus, the states have simply been asked to use this instrument.

- Requirement that the authorities involved in the licensing respect short deadlines for communication and include meetings with each other. This is intended to reduce the delays in internal and intra-agency decision-making processes. The Federal Government sees this proposal as being already largely valid under federal law (due to the amendment to the 9th *BImSchV*).
- On-site appointments with all parties. In implementation practice, according to the opinion of the government, site visits of this kind are as a rule already being carried out. Here flexibility to react to the individual case should be preserved. For this reason regulation under federal law is considered inadvisable.

The government report also gives information on the steps already taken by the Federal Government, the governments of the states and by different bodies, such as the Conference of State Prime Ministers, the Conference of Ministers of the Environment.⁴⁰ This report also contains very critical remarks about the environment policy of the EC. For instance, the guideline proposed by the EC commission on integrated avoidance and reduction of environmental pollution is criticised on the grounds that it would entail an enormous amount of bureaucracy.

The requirement of the Conference of State Prime Ministers (resolution of 17 June 1993) to transfer some state administrative duties to private institutions in order to accelerate planning and licensing procedures was considered by the Federal Government to be particularly positive for the area of air quality control. They have announced that a regulation on this will be issued which would make it possible for some duties, such as safety tests, which were hitherto carried out by the environment administration, to be transferred to private technical experts.

The *Bundestag* has also asked the Federal Government to include in their reform considerations the mediation procedures used in the U.S.A., in which an impartial mediator facilitates the whole procedure. In their opinion they state that the integration of mediation procedures into the licensing procedure is not yet possible due to the existing legal framework, but that this situation could be changed by amendments to certain laws. With regard to mediation procedures which take place outside the licensing procedure (as informal procedures to prepare licensing decisions), reservations, particularly legal ones, were expressed. It is, however, admitted that mediation procedures could have advantages over the normal practice of formal and particularly informal preliminary discussions, which are usually held only between the authorities responsible and the party applying for a plant to be licensed, since they take into account a larger circle of affected parties and make the negotiation process more trans-

⁴⁰ Report of the Federal Government on the possibilities to further accelerate and simplify the licensing procedure required under air pollution control legislation. *Bundestags-Drucksache* 12/6923 of 28.2.1994.

parent. They believed that the mediation procedure would not help accelerate the licensing procedure and that it would cost a good deal of time and money. Correspondingly the following conclusion was drawn: "On the whole we should wait for further practical experience with mediation procedures to be gained. The Federal Government therefore believes that mediation procedures should not at present be incorporated into environmental law." (*Bundestags-Drucksache* 12/6923, p. 25). Studies by social scientists on the mediation procedure in Germany have reached a similar conclusion in that they believe that the level of empirical knowledge about the functioning and possibility for adaptation of this procedure for dispute resolution which has scarcely been used in Germany to date is not yet sufficient to enable it to become a legal regulation. However, it is not considered a problem to amend existing legislation which impedes the use of mediation procedures (see Weidner and Fietkau, 1994).

7. Political Pressure as a Precondition for the Move Towards a More Substantial Environmental Policy and its Underlying Factors

The 1980s saw not only a great increase in the urgency of the problem but also a vast *improvement in the basic conditions* for imposing a stricter environmental policy.

The greater pressure brought to bear by demands for environmental policy action by the relevant decision-makers, who cannot afford to ignore them or give them merely symbolic attention without losing votes and legitimacy or risking political turbulences, has resulted essentially from a number of factors, one being the higher environmental awareness of the population. Secondly, people have increasingly lost confidence in the ability and will of the responsible politico-administrative institutions to solve environmental problems. Thirdly, there is burgeoning distrust of ostensibly impartial scientific experts and their technological expertise. Lastly, an especially important aspect is that environmentally-involved citizens were given better opportunities to translate their demands into purposeful and effective environmental policy activities. Here some of the most relevant factors:

- (1) The degree of organisation among environmental protection interests of what since the end of the seventies has been known as the ecological movement has increased as a result of the growth and consolidation of grass-root initiatives, environmental associations and nature protection societies, which currently have more than 4 million members), and environmental parties who have been able to create a broad and relatively close-knit local, national and international communication network, including regular newsletters and magazines. The larger environmental and nature conservation organisations include BUND (German Association for the Protection of Nature and the Environment) and Greenpeace, the WWF (World-Wide Fund for Nature), NABU (German Nature Protection Association) and the Bund Naturschutz in Bayern (the Bavarian branch of BUND). The umbrella organisation is the DNR (German Ring for Nature Protection) which has over 90 member organisations, with a broad range of interests such as animal protection, local history, angling). In the new federal states in the East a large number of the

organisations mentioned play an important role although membership is very low. The largest organisation in the former GDR, the GNU (Society for Nature and the Environment) was disbanded in 1990 with a membership of some 50,000. The larger environmental organisations are generally financed by membership fees, tax-deductible donations, sales of books, magazines, etc. and through certain activities, such as consulting, expert evidence, etc. Usually—with a few exceptions such as Greenpeace or the WWF—they suffer from an almost chronic lack of funds.

In their early phase the green parties tended to be quite radical in their criticism of society and rather strictly fundamentalist in their values, exhibiting a strong aversion to compromising on political issues. Now that their ideology and political behaviour have softened they are increasingly attracting voters from the traditional parties. This development needs some explanation: German environmentalism is largely an offspring of the movement against nuclear energy. Among the established parties, however, there was a broad consensus on nuclear energy policy. The anti-nuclear movement amalgamated with other new social movements (women's lib, New Left, peace movement) and the environmental grass roots movement. During this process it became more and more concerned with environmental pollution and, later on, with ecology and human destructiveness in general.⁴¹ Thus, the green parties drew their main support from those parts of the population that were deeply dissatisfied with existing political institutions which placed emphasis on economic growth and which systematically neglected non-monetary values and social minorities. The radicalisation of German environmentalism in the 1970s can also be partly ascribed to the lack of access to established decision-making channels. In the course of time, then, after having participated in several elections and after many battles between the two main ideological factions of the nation-wide operating Green Party—in which the so-called "Realos" (the realistic-pragmatic faction) won victory over the "Fundis" (the fundamentalist-uncompromising faction)—the Greens have become more pragmatic and no longer see themselves as the extra-parliamentarian opposition within parliament. Finally, during the 1980s the Green Party developed into an almost "normal" political party with access to political agenda-setting and policy-making circles, participating in cumbersome consensus politics and providing a parliamentary, and in some case governmental, basis for environmental demands in society.

- (2) The laity's environmental expertise has greatly expanded so that specialised expert knowledge about complicated ecological, technical, legal, and political aspects can now be challenged with well-founded arguments. Furthermore, knowledge challenging the established environmental "expertocracy" has become institutionalised. Professionalisation and also specialisation within the environmental protection movement is being furthered, especially by environ-

⁴¹ For example, three former activists in the anti-nuclear movement (Joschka Fischer, Josef Leinen and Monika Griefahn) were Ministers of the Environment at federal state level.

mentally involved research institutes and research groups, whose recognition in the established system has been increasing. There are growing tendencies to involve the expertise of strictly environment-oriented institutions, the most important one is the Öko-Institut Freiburg, founded in 1977, in public planning and decision-making processes at all levels of government. Private enterprises, too, increasingly seek advice from and co-operation with environmental organisations.

- (3) Private and public media have given the environmental discussion a broad forum, often revealing scandals. They have also presented exemplary scientific analyses and evaluations of complex interrelationships between menacing developments. The mass media generally exhibit a positive attitude to environmental issues and demands and a critical stance towards environment-related governmental programmes and activities. Furthermore, there are various widely distributed commercial magazines focusing on environmental issues, as well as one daily national newspaper (Die Tageszeitung or TAZ) which could be characterised as the communication and information medium of the "alternative sector", the new social movements, including environmentalists.
- (4) The willingness of the population to accept and support effective anti-pollution measures has continued to grow for a long time, as shown by public opinion surveys and analyses of how much people are prepared to pay. Even under today's worsening conditions, it can even be said that one often stands to gain in popularity by promoting strict anti-pollution regulations or by opposing large-scale industrial and technological developments—the latter pointing to the fact that Germany is not entirely free of a certain NIMBY syndrome. Moreover, political culture in Germany seems to provide a better breeding ground for feelings of angst concerning ecological catastrophes than in other countries.

Representative opinion polls have shown that from the beginning of the seventies protection of the environment has, with little fluctuation over time, been seen by the population as having high to top priority. This has changed over the last four years—in a dramatic way or only slightly, depending on which methodology was used in the surveys. When the question was posed in an open-ended way without suggested answers (asking people simply to name the most important problem to be solved at that time in Germany), around 70 per cent of all individuals asked in 1989 in West Germany said that environmental protection should have top priority. In October 1993 only 16 per cent of those questioned in Western Germany and 12 per cent in Eastern Germany included environmental protection amongst Germany's most important problems. Thus, environmental protection took third place on the list of issues in both Eastern and Western Germany. However, if closed questions with specified answers were posed (here the individual is given a list of different topics and can give all topics of his/her choice the label "very important") then a survey carried out in this way in May 1993 showed that in Western Germany the issues of jobs, environmental protection and abuse of asylum laws were termed "very important" with equal frequency. In Eastern Germany, on the other hand, environmental protection was seen as "very important" far less frequently than creation of jobs and combating crime. A survey

carried out in December 1992 by a different institute (Infratest) using the latter method puts environmental protection as number one on the list of problems seen as "very urgent."

A comprehensive and representative opinion poll carried out by the ipos institute in October 1993 produced the following results: 46 per cent of West Germans considered the state of the environment in West Germany to be good or very good, a majority of 53 per cent said it was bad or very bad. In the case of the East Germans, 27 per cent considered the environment there to be good or very good, whereas 73 per cent thought it was bad or very bad. 36 per cent of those questioned in the West believe that the state of the environment in the West will improve in the next few years, 30 per cent believe it will deteriorate. 65 per cent of East Germans believe that the state of the environment there will improve in the near future and only 10 per cent think it will get worse. To the question "What frightens you most when you think about the future of our environment?" the following list emerged for West Germans: hole in the ozone layer (39 per cent), air pollution (37 per cent) and waste problems and dying forests (22 per cent each). The majority of East Germans also mentioned the hole in the ozone layer (47 per cent), followed by waste problems (44 per cent), dying forests (35 per cent) and air pollution (33 per cent).⁴²

- (5) Compared to the 1970s, the general resistance of the *business sector and trade unions* to effective environmental protection measures has slackened. A growing number of firms, business associations, some influential trade unions, as well as the German Federation of Labour have been quite positive about the effects that an environmentally oriented economic policy has on growth and employment. Environmental protection is gaining importance world-wide, opening new growth markets for environmental products and technologies that have been developed and tested in the Federal Republic of Germany. There are some environmentally-committed associations, funded by private companies, which explicitly aim at promoting environmentally sound production methods. However, with the economic downturn which started in mid-1991, traditional business associations and some trade unions are increasingly opposing proposals for stricter environmental regulations; they aim at speeding up licensing procedures, but they rarely call for a relaxation of existing standards. Generally, it can be said that German industry considers environmental protection and "ecological product quality" to be essential ingredients of their marketing strategies and important competitive factors. They also claim, and lobby in this direction at the national, international and supranational levels, that foreign competitors should operate under comparably strict standards. Given the strength and power of German industry and government in the international arena, this has a strong dynamizing effect on the development of international environmental policy.

⁴² ipos-Institut für praxisorientierte Sozialforschung, (1994), Einstellungen zu Fragen des Umweltschutzes 1993, ipos-no.: 876/875.

The basically positive attitude of German industry to environmental responsibilities is partly a result of the various types of funding it gets from the government. Private firms investing and producing in an environmentally sound way enjoy support from governments at all levels, such as tax concessions, low-interest loans, direct subsidies, technological advice, R&D measures etc. Gradually, governments have also increased incentives for consumers, e.g. tax reductions, information, labelling, etc., to buy "environment-friendly" products which also indirectly supports firms in their environment-related efforts. Therefore—although the Polluter-Pays-Principle is one of the acknowledged basic principles of German environmental policy—it is justified to conclude that private enterprises bear only part of the costs for the ecological modernisation of the industrial structure.

Overall the share of Gross National Product spent on environmental protection in 1991 was 1.6 per cent (1.5 per cent in 1985), of which the state paid half (0.8 per cent; 0.7 per cent in 1985). The average annual expenditure (1991) of manufacturing industry for environmental protection did not even amount to 1 per cent; in those sectors of industry which cause more pollution (chemicals, metal production, oil refining) it was between 3 and 4 per cent. The share of total investments accounted for by investment in environmental protection was in 1991 an average of 5 per cent (3.5 per cent in 1980; 4.4 per cent in 1984). These figures include the numerous state subsidies (see Federal Environmental Agency 1993). In an international comparison of expenditure on environmental protection in relation to GNP Germany occupied second place behind Austria (1991).

Finally, it should be mentioned that there has been a steeply rising trend in recent years in a new "environment market" which has established itself alongside the traditional environment market involving trade and industry ("eco-industrial complex"). It encompasses a broad variety of green businesses—a large number of small environmental consultancies, environmental experts, ecological research institutes, environmental consultants financed by public funds (waste management, energy consultants etc.), who aim to carry out their work with "a commitment to the environment." A large number of the environmental organisations now also carry out commercial work, such as advising public authorities and private businesses on environmental matters. That has no doubt been supported by the move towards greater pragmatism within the ecological movement in recent years. This "green entrepreneur complex" has benefited from the Environmental Impact Assessment Act and will probably receive a strong impetus when new instruments will be passed, such as eco-controlling and eco-auditing which are being discussed at present, especially at EC level. It also seems possible—although this can only be speculation at present—that the evidently increased presence of these economic interests in the ecological movement will mean that certain instruments of environmental policy which increase the market chances for these "latent" economic interests will play a greater part in the range of environmental policy instruments used by the state, since they have a large lobby in the environmental organisations and the environmental movement.

- (6) Current trends in the expert discussion of the legal problems of environmental protection are becoming increasingly favourable to environmental efforts—an extremely important shift in an environmental policy system as heavily regulated as Germany's. The legal dogma underlying conventional civil and public law relevant to environmental issues (nuisance, proof of causality, compensation, liability, responsibilities etc.) is being challenged more and more, even by rather conservative lawyers, because it systematically favours environmentally damaging installations and activities. The unfair effects that court rulings have on victims are also being criticised more vociferously than used to be the case. Court decisions themselves are tending to move beyond the existing, relatively narrow constitutional and statutory framework and are increasingly supportive of environmental concerns.

Unlike other political issues, e.g. abortion, unification of the two German states, the Federal Constitutional Court has not massively intervened into governmental realms with its adjudication in environmental matters. Instead, it has widely refrained from substantially narrowing the discretionary powers of government to control environmental protection measures, although it has much power to influence governmental activities, e.g. by declaring governmental action or non-action as being unconstitutional or by repealing laws, resulting partly from the idea of the *Rechtstaat*, i.e. a state based on the rule of law to which the state itself is subject (Art. 20, 28 section 1 of the German Constitution), and the basic requirement that state action be conducted in a legally justifiable manner and upheld by right of appeal to the courts. This "unobtrusive" attitude of the Constitutional Court became particularly evident in its decision of 1983 concerning a complaint about the inappropriateness of governmental measures against forest damage. The Court dismissed this complaint by pointing to the various air pollution control regulations issued by the government (see NSW 1993, 2931). In the case of the fast breeder reactor at Kalkar, the Court (BVerfGE 49, 89—Kalkar) denied a violation of the government's protection obligation, though at the same time it made clear that this obligation is not limited to actual harm or danger and that the mere risk of harm must be avoided or at least reduced. Further important decisions of the Federal Constitutional Court relate to questions of participation (BVerfGE 53,30—Mühlheim-Klärlich), noise pollution from aeroplanes (BVerfGE 56,54—Düsseldorf Airport) and motor traffic noise (BVerfGE 79,174). Other forms of judicial control of governmental actions and conflict settlement are laid down in the public (administrative), civil and criminal law, for each of which different sets of courts are responsible, both at federal and state level. Up to now criminal law and courts have played only a minor role (see Heine, 1991, p. 79-80). After some four years of political debate, the Bundestag approved in April 1994 an amendment to the Act to Combat Environmental Crime in order to make environmental criminal law more effective. This amendment states that companies and individuals found guilty of substantially polluting the soil, air or water, of improperly storing or disposing of dangerous substances and of illegally exporting toxic waste face gaol sentences of up to five years or heavy fines. In cases of major

disasters or major offences the sentences can be up to 10 years. The government claims that this amendment puts Germany in the category of countries with the strictest laws on environmental crime.

There are, however, a few outstanding decisions of the Federal Supreme Court (*Bundesgerichtshof*) on product liability questions which do closely affect environmental crimes. One of them is the decision on the so-called Leather Spray Case of 1990 (BGHS 37, 106—Leather Spray) and another the revised decision expected at the beginning of 1995 on the Wood Preservatives Case. The decision on the Leather Spray Case of 1990 is seen as the "leading case" of the Supreme Court on the still young product liability law. This case concerned the fact that lung damage was caused by the use of leather sprays. The case was decided in favour of the affected party. In its decision the Federal Supreme Court extended the definition of liability of a company, saying that no member of the management could argue his/her innocence by claiming that they as an individual had said no to further sales of the product. On the other hand, the Supreme Court decided: a company is obliged to monitor a product and if necessary to recall it if reports of damage being caused by it are received. The causal link between the product and the damage which has occurred is accepted even if the specific biochemical mechanism cannot be identified, on the condition, however, that other causes can be excluded.

The Wood Preservatives Case went on for a year (66 days in court) and ended in May 1993 at the Landgericht (County Court) in Frankfurt. It is thought to be one of the most extensive product liability cases in the history of German criminal law. In it two directors of a company selling wood preservatives were given suspended prison sentences of one year and fines of 120,000 deutschmarks each. The defence lodged an appeal with the Federal Supreme Court. The opinion is expected in April 1995. The Frankfurt Landgericht considered proof to have been provided that the two accused were guilty of grievous bodily harm and grave endangerment by the release of poisons. This was supported by 29 documented cases of plaintiffs who had suffered serious damage to health as a result of poisoning from the biocides which contained PCP and lindane. (The association of sufferers from wood preservative poisoning, formed in 1983, makes reference to around ten thousand cases of damage to health which they have documented). The hurdle of providing proof of causality (proving that the product actually caused the damage to health), which is extremely difficult, was overcome by the "Theory of Interpretation of Symptoms" which the judges developed themselves. On this basis, they considered the causality to be proven, although the experts who had been called upon could not agree on this. The fact that the judges did not accept the arguments of toxicologists which constitute the prevailing opinion, nor the limit values generally accepted by scientists (on tolerable toxic levels), attracted particular attention in scientific circles. Apart from the opinions of the judges on the causality which caused such a stir, there were other far-reaching decisions concerning the obligations and responsibilities of manufacturers of products which could endanger health. Here the judges said that a manufacturer was obliged to

take measures even at the first plausible indications of a damaging effect, and not wait until this had been proven. These measures included recalling products and issuing warnings which need be more or less extensive depending on the extent of the damage to be expected. Furthermore, the court developed new arguments concerning limitation of statutes for crimes which are much more favourable to sufferers of chronic toxic damage than the "prevailing opinion" to be found in legal literature and precedents. In view of the judges' innovative arguments for their decision, which are also very comprehensive, comprising 360 pages, and of the great economic significance of the case and the possible consequences for the further development of product liability and environmental crime legislation, it is already thought to be certain that—regardless of the appeal decision of the Federal Supreme Court—the Wood Preservatives Case will become another "leading case" in the product liability legislation.⁴³

The interesting thing about the justification of the judgement is that it has astounding similarities in many areas, especially with regard to the innovative and committed approach, to the justifications of the judgement in the so-called Four Major Pollution Trials which took place in the late sixties/early seventies in Japan (see Tsuru & Weidner, 1989).

The administrative courts exercise comprehensive judicial control over administrative action in which the rights of individuals have been violated (Art. 19 GG; Federal Administrative Court Procedure Act). There are three levels of administrative jurisdiction: administrative courts, higher administrative courts (mainly courts of appeal), and the Federal Administrative Court. They hear cases brought by individuals to prevent, control or repeal action by a public agency or a private organisation with public functions. Not only those affected by pollution but also "the polluters" (the regulatees) may initiate court action and frequently do so. Taking legal action is only possible if the injured party's individual statutory rights have been unlawfully harmed by the action or non-action of the administration. This concept of judicial review of administrative action is reflected in the restrictive criteria for access to administrative courts which, for example, do not allow class action or "altruistic" action by an individual.

Nevertheless, administrative courts play an important role in environmental policy and conflicts. They are often mobilised by third parties before, during and after licensing or planning procedures, with the aim of achieving tighter environmental standards or stopping projects or operating plants. Especially the lower courts have often ruled in favour of environmental concerns. They also started quite early with a thorough review of the interpretation and application of broad statutory terms by the administration as well as the adequacy of standards set in administrative directives. Quite often they have challenged the administration's decisions and proceeded to develop standards of their own accord. This resulted in a highly controversial debate on the administrative courts' increasing intervention in

⁴³ The judgement was published in part in the *Zeitschrift für Umweltrecht*, no. 1/1994. See also *Ökologische Briefe*, no. 19/20 of 11.5.1994, p. 12 ff., no. 21 of 26.5.1994, p. 8ff.

governmental competence. Finally, decisions by the higher courts and the Federal Administrative Court have emphasised and strengthened governmental powers for making standards more specific. A landmark decision was made by the Federal Administrative Court in 1985. In the so-called Wyhl decision (Wyhl had been chosen as a site for a nuclear power plant), the administration was given large scope for discretion in making standards more specific (BVerwGE 72, 300). The underlying objective of this decision was to prevent lower administrative courts from further curbing the administration's powers with decisions which had the effect of being guiding principles for environmental policy. It was also a reaction to the criticism that the lower courts drifted into designing, case by case, the scope of environmental protection, thus making a consistent and uniform environmental policy very difficult and almost impossible for the government to achieve.

The Federal Administrative Court's decision was highly important for the government because the many broad blanket clauses (*Generalklauseln*) in German environmental law provide responsible authorities with great flexibility in their decisions on individual cases. This is quite problematic: implementation agencies are often accused of using their bargaining power in favour of economic interests or "self-interests" in decisions on public development projects, e.g. highways, waste disposal plants. However, the decision was also highly important in giving concrete form to the principle of precaution in that safety measures at nuclear power plants were tightened up and it was stipulated that they must be based on the latest available science *and* technology (not only technology) (Rehbinder, 1992). In 1984, in connection with an appeal against the Industrial Firing Installations Regulation, the principle was further strengthened (BVerwGE 69, 37—Heidelberg district heating plant). Here the court argued that the principle of precaution enshrined in the Federal Air Pollution Control Act (BImSchG) applied not only to the determination of air quality standards in the immediate vicinity of an emitting plant but also implied an obligation to take into account the control of long-range pollutants. Further important decisions taken by the Federal Administrative Court related to issues of motor traffic noise (BVerwGE 71,50 and 77, 285) and class action suits (BVerwGE 87, 63 and 78, 347).

The Civil Code also provides possibilities for taking legal action against pollution and pollution-caused damage. Such cases—mostly dealing with conventional neighbourhood conflicts, questions of compensation for environmental damage, but also for expropriation by public bodies—are brought before the regular civil courts. Civil courts have a four-tier hierarchy, with the Federal Supreme Court (Bundesgerichtshof) at the top. Suing for compensation on the basis of the civil code is restricted in several ways. In many cases proof of negligence is required. If emitters operate under a permit granted them by an environmental authority, they are, in principle, not liable. The right to seek compensation is almost exclusively reserved for property owners. Furthermore, a person affected by pollution bears the relatively heavy "burden of proof", i.e., in general the plaintiff has to demonstrate the causal relationship between the polluting activities and his or her harm. However, certain restrictions concerning negligence and burden of proof

were relaxed by a Federal Supreme Court decision in 1984 (BGHZ 92, 143—Kupol furnace) and the Environmental Liability Act of 1990. In connection with compensation claims following the use of children's tea, an important decision was also taken by the Federal Supreme Court on product liability and manufacturer's duty to carry out research (BGHZ 116, 60—children's tea).

All in all, the courts have not played a major role in actively shaping environmental policy. Nevertheless, there have been many court decisions on individual conflict cases which were important for a review and definition of the permissible scope of administrative measures. They were also generally in favour of the environment and those affected by pollution and partly initiated environment-related activities on the part of the government. The decisions of federal courts have altogether not effected a backlash for progressive environmental policy but rather acted as a stimulus by establishing broader responsibilities for the government and pointing out certain gaps in the legal system that have created unfair situations for those affected by pollution. Some decisions have had considerable impact on governmental policy-making, e.g. the Voerde decision by the Federal Administrative Court (concerning a fossil fuelled power plant) which led to stricter emission standards within the statutory framework (BVerwGE 55, 250—Voerde). In several instances, the federal courts have also stressed the government's duty to strive for a precautionary environmental policy which effected the re-interpretation of this principle in an environmentally favourable way. However, there is a clear tendency not to intervene too heavily into governmental powers for active policy design and to limit such interventions by the lower, especially administrative, courts by case law (Bock, 1990, p. 311).

- (7) Earlier lines of party-political conflict in parliament have changed completely. Whereas environmental policy ideas often met with resistance from opposition parties when the Social Democrat-Liberal coalition held power, the present Federal Government faces an opposition that almost always pushes for stricter environmental protection measures and makes corresponding proposals. In addition, the traditional parties have shown far greater sensitivity to environmental concerns than in the past. Especially the Social Democratic Party (SPD) is making great programmatic efforts to attract "green voters", e.g. in a concept for sustainable development through "social and ecological modernisation of the industrial society" (SPD, 1993)—a concept that was first introduced into the political discussion by a professor of political science and member of the Berlin Green Party or Alternative Liste.⁴⁴

⁴⁴ The beginning of the steep rise to fame of the concept of "ecological modernisation" in Germany was a debate on 22 January 1982 in the Berlin city parliament in which Prof. Jänicke as the environment spokesman of the opposition Green Party (in Berlin: *Alternative Liste*), proposed four kinds of ecological modernisation: in industry, in the energy, traffic and building sector. In these field he said that innovations which would aid employment levels and ecologically beneficial forms of rationalisation should be promoted which would not so much be born by labour as by energy and raw material consumption (see Jänicke 1993, p. 18).

8. Does Federalism Matter?

Whereas formerly the federal states and local authorities quite frequently used to water down or obstruct the Federal Government's environmental protection projects, environmental policy at the state and local levels is now more progressive in certain areas than the central government. This is combined with an increasing responsiveness to the environmental demands of the public, especially by local authorities, and, of course, by those departments and agencies in states in which the Green Party is part of the government.

The general question "Does federalism matter?", i.e. has the federal system had more positive or negative impacts on environmental policy achievements, is by no means easy to answer. A systematic answer would go beyond the scope of this study. I will, therefore, touch only on some aspects of it. There surely cannot be a simple yes or no to this question because the influences differ not only according to circumstances that have changed over time but also depending on the analytical perspective taken. The matter is further complicated by the fact that the term federalism is only a formal one and has no universal definition. In each country which has a federal system federalism is a different thing and, consequently, its impact on policy and politics also differs. (See Norton, 1994). It can even change tremendously in its substance over time and within one and the same country while keeping its formal structure. This is what apparently has happened in Germany during the period of environmental policy investigated here (1970 to 1994). At least there are strong indications revealing a development from a former "co-operative federalism" to a moderately "competitive federalism".⁴⁵

The term co-operative federalism is used to characterise a federal system with a close-knitted formal and informal communication network between federal and state level, based on consensual negotiation and bargaining among the policy elites ("consensus politics"). In environmental policy this feature is reflected in the co-operation principle (one of the guiding principles of German environmental policy), a procedural principle calling for close co-operation between regulators of all levels of government, regulatees, policy-makers and, though more in theory than in reality, the affected public (via its interest organisations) in both policy-making and implementation. However, the actual practice differs strongly with regard to the principle of co-operative federalism and the co-operation principle in environmental policy and their "philosophy". In reality, co-operative federalism was strongly biased in the sense that participation in the co-operation network was almost exclusively a matter for policy elites from federal and state executive bodies, keeping parliaments and local bodies outside. For political decisions on issues of great importance, leading representatives of business federations and trade unions had access, which transformed the system of federal co-operation to a neo-corporatist system. This characterisation of the German federal and political system does not exclude the existence of intensive and frequent

⁴⁵ There is a plethora of publications on federalism in Germany. Only a few can be mentioned here but they all contain further references: Benz, 1989; Hesse & Ellwein, 1992; Katzenstein, 1987; Knoepfel & Kissling-Näf, 1993; Lehmbruch, 1989; Scharpf, 1985, 1991; Schmidt, 1992.

co-operation with various other institutional actors in different settings. Basic policy decisions, however, were made within the negotiation networks described.

It was mainly due to the challenges environmentalism posed and the success of the green parties (combined with the rise of new values and ideas, such as regionalism, decentralisation, 'small is beautiful', comprehensibility, substantial participation, etc.) that these arrangements of executive-based, closed-shop consensus politics changed. The political decision-making process became more open and conflictual. The success of green parties in public elections, first at local and state and later at federal level, brought new players into the game of politics who were not bound to the traditional basic "area of consensus" set up over decades by the established political parties and institutions such as trade unions and business federations. In addition, when the established parties also started to compete in environmental protection policy, the traditional "area of consensus" lost its appeal and—to cut a long and complex story short—*co-operative* federalism transformed into moderately *competitive* federalism. Concerning environmental policy, this means that a dynamic development towards regulatory and organisational reform as well as experimentation with new instruments and concepts took place at state and, especially, local level. Now there is much more flexibility, variety and plurality in the German environmental policy arena. And now it is the Federal Government that has an inflexible attitude and a certain reluctance vis-a-vis innovation. At the state and local level, authorities clearly seem to enjoy experimenting. But compared to the situation of environmental policy in the years 1975 to 1982, the Federal Government (i.e. the Federal Ministry of the Environment) has also gained in innovation and strategic capacity.

In summary, the impact of federalism on the "quality" of environmental policy in Germany is decisively determined by situational, structural, institutional, and political factors and their changing interrelationships over time. In the early days of a systematic environmental policy, when a new and progressive Federal Government was faced with constitutionally strong states that were little interested in or even opposing stricter environmental policy, depending on their problem structure, economic situation and environmental self-interest, federalism had played a restrictive role. But at that time there were also some innovative developments at state level. For example, in North Rhine-Westphalia in the area of clean air policy and in Bavaria in the institutional field. The first environment ministry was established in Bavaria (Ministry for State Development and Environmental Questions)—an innovation that was imitated by other federal states over the years. Later on, federalism provided a political training field for the new green party organisations as well as channels for getting access to the politico-administrative system (remember that the Greens first entered parliaments at state and local level and then, in 1983, at national level). The "greening" of the federal states and many local bodies—in combination with their increasing self-confidence during the evolution of competitive federalism—put up quite effective barriers against attempts of the Federal Government to weaken environmental policy through federal regulations.

In this context, the constitutionally fixed power of the states for implementation and enforcement has also played a decisive role.⁴⁶

And, last but not least, federalism provides the public not only with a political structure allowing for direct participation in concrete politics, i.e. in decision-making with direct, so to say: visible effects "in their own backyards", but also, and relatively frequently, with the opportunity to campaign or run for a political party in one of the numerous elections that take place: in Germany's 16 states elections are held (with some exceptions) every four years to the federal, state, local and European parliaments.

My final conclusion is: in the German political context federalism was a necessary, but not sufficient, condition for the environmental achievements described above (chapter 5) and for the process of political and ecological modernisation of the established industrial and political structures which has begun.

9. Résumé: 25 Years of Modern Environmental Policy in Germany. Treading a Well-Worn Path to the Top of the International Field

For over a quarter of a century now Germany has operated a systematic (modern) environmental policy which is both institutionally and legally sophisticated. The foundations for this policy were laid within the space of a few years by the Social Democrat-Liberal coalition government which came into power in 1969. They accomplished this through a show of strength in the legal and institutional system and virtually as a solo effort since there was no outside pressure from society or any branch of politics at the time. By contrast, however, they neglected the implementation level which caused considerable implementation deficits and environmental conflicts.

The coalition between the Conservatives and Liberals, which came into office at the end of 1982, did not confirm the initial fears of many people who thought that they might implement a weak environmental policy due to their sympathies for economic interest groups. Strengthened and driven by the changes in society and the new consciousness which saw environmental protection as a high priority, and due to the challenges in the political arena coming from the ecological movement, green parties and

⁴⁶ Using the highly political conflict about the extent and severity of safety regulations for nuclear power plants, Czada (1993) was able to show that the federal structure of dividing responsibilities had made adequate solutions possible, which could not have been achieved by a hierarchical, centralistic organisation of government. He claims that the German federal system, which is characterised by the obligation to engage in negotiation and bargaining and form networks, has enabled Germany to occupy the highest place internationally in terms of operational safety and problem-free operation and "at the same time made a decisive contribution to settling the German nuclear energy dispute." (Czada, 1993, p. 74f). Measured by the number of shut-down nuclear power plants the "dropping out of nuclear energy" demanded by the environmental movement, the "Greens" and relevant sections of the Social Democratic Party" has already begun. Some 20 reactors have either been shut down or not completed. Since 1986 no new nuclear power plant has been ordered. Nevertheless both the government and industry are using the "climate discussion" to work towards the re-entry into nuclear power generation, making it acceptable by propagating a "new generation of power plants."

the "greenified" social democrats, who had made the concept of "ecological modernisation" one of their battle cries, they passed pioneering legislation in a relatively short space of time and brought about massive drops in pollution levels in specific problem areas, stimulating the process of environmental policy both at EC and international level.

The measures taken and their outcome have assured Germany a good place amongst the leaders in the field of progressive environmental policy—something which it must be said is recognised more clearly abroad than at home. For example, a representative survey carried out in 1993 showed that 53 per cent of people questioned considered the state of the environment in West Germany to be bad or very bad; nevertheless a small majority of 36 per cent thought it would get better in the future, whilst 30 per cent thought it would get worse. The majority of Germans (in East and West) are dissatisfied with the existing environmental protection legislation and, above all, with adherence to it. Satisfaction with the performance of the Federal Ministry of the Environment was also low in 1993 (ipos, 1994).

The search for outstanding differences in the strategic approach and range of instruments used in the environmental policy of the Conservative-Liberal government as compared to their Social-Democrat-Liberal predecessors leads to the conclusion that almost everything remained the same, which is surprising in view of their very different ideologies and programmes. Whilst the Social Democrat-Liberal government established a high-calibre programme (the Environment Programme of 1971), the basic pillars of which are still valid and which is still thought of highly today, the government which took over has still not managed to develop anything comparable. Compared to the programmatic achievements of today's government—"The environmental policy of the Federal Government. A balance sheet and perspectives" (1986), "Guidelines for a preventive environmental policy" (1986), "Environmental policy. Balance Sheet of the Federal Minister of the Environment, Nature Conservation and Reactor Safety" (1987), "Environment '90. Environmental policy: goals and how to reach them" (1990) and "Protection of the climate in Germany" (1993)—what the Social-Democrat-Liberal government had mapped out, in a considerably shorter time with fewer problems and less pressure to take action and with more limited knowledge about ecological relationships and problems of implementing policies, has to be seen as a monumental conceptual structure. For several years, however, a transition from mainly reactive, curative measures and instruments to an approach based more on acting on root causes, and on conserving resources and the environment has been noted.⁴⁷

⁴⁷ The essential contents of the coalition agreements in 1991 in the field of environmental protection are to be found in Laufs (1991); a critical discussion of these agreements is in the *Zeitschrift für angewandte Umweltforschung*, 4.1.1991, pp. 15-21. In the coalition agreements (chapter 6, "Ecology and Market Economy") of November 1994 on the major environmental policy goals for the four-year term it is stated that the state has to fix the framework conditions for an ecology-oriented social market economy and that the government will firmly support a sustainable policy. In particular, the government will promote economic incentives, measures to cope with global challenges, the introduction of a Europe-wide carbon dioxide fee/energy tax, self-commitments by industry to reduce pollution loads, the shift of responsibilities and tasks from government to industry (e.g., water and waste management), pilot projects testing market-based instruments, acceleration of planning and permit procedures, a comprehensive soil protection law, the develop-

The reform of environmental liability legislation, finally passed by the *Bundestag* after years of discussion in September 1990, is a step in this direction. The introduction of liability for risks related to industrial plants (irrespective of fault), the easing of proof of causality, the extension of the definition of liability to apply also to normal operation of plants is more than a simple cosmetic improvement to environmental law along conventional lines.⁴⁸

These regulations, as has to some extent already been the case in Japan, have put pressure on the owners of plants which are potentially damaging to the environment to take more care to avoid environmental hazards than in the past. The concept for reducing CO₂ emissions also contains measures which could support a new ecological orientation, in this case in the field of energy policy. The packaging regulation of 1991 and the recently (September 1994) passed Comprehensive Waste Management Act ("Eco-Cycle" or "Closed Circuit" Economy Act = *Kreislaufwirtschaftsgesetz*), which has been on the government's agenda for more than four years because of the strong opposition from the Economics Ministry, opposition parties, several states and economic interest groups, open up new paths in waste management policy towards recycling of waste or avoidance of its production wherever possible and by encouraging the production of environment-friendly products.⁴⁹

These are all very promising approaches but it still remains to be seen how effective they will be in practice. Further chances of changing the existing basic pattern of the environmental policy system in favour of ecological needs, such as those contained, for example, in the regulations requiring environmental impact aspects and, especially, on public access to environmental data (the Environmental Information Act came into force in July 1994), were made little use of. To date there has been no majority in the present government in favour of regulations which would promote participation or improve the legal status of groups representing the interests of environmental protection, such as a right to class action. To date it has not been possible to anchor mechanisms which protect the environment in those areas of policy which are particularly charged, such as agriculture and traffic/transport. And despite a long and intensive debate on ecological charge or tax systems during which most experts favoured the introduction of such instruments, the government has not taken any specific steps in this direction.⁵⁰

ment of low-energy vehicles, the reduction of benzene in gasoline, the implementation of the eco-cycle waste act (*Kreislaufwirtschaftsgesetz*), amendments of the packaging regulation (to allow for more competition), and a multi-party consensus-oriented party dialogue on future energy policy.

⁴⁸ The Environmental Liability Act of 10.12.1990 (in force since 1.1.1991) does not, however, cover damage caused at a distance and as a result of a summation of effects, nor ecological damage to the detriment of the general public. People affected by damage to forests, for example, will not be helped by the Environmental Liability Act.

⁴⁹ Actually, with the *Kreislaufwirtschaftsgesetz*—an amendment of the Waste Act of 1986—the principles of the packaging regulation has been extended to all products. The new act will create a complete "cradle-to-grave" producer responsibility for all goods marketed (in certain instances holders are also responsible). They have to avoid, recover or dispose of waste arising from production and use.

⁵⁰ There is a bulk of literature on energy/ecological taxes. H.-J. Luhmann's review of several books on this issue provides a good overview on the latest state of the debate (see Luhmann in *Das Parlament*, 13/20 January 1995, p. 14f.); see also the expertise on an ecological tax reform prepared for Greenpeace by Bach et al. (1994) and

My conclusion, therefore, is that overall a policy concept still prevails which systematically favours reactive and curative measures along with the use of disposal technology which merely shifts the problem from one area of the environment to another and causes unproductive conflicts both in society and the administration. Seen in a structure-oriented view of this kind, the environmental policy of the eighties and nineties is a more effective version of the environmental policy of the seventies. The Conservative-Liberal government has reacted to the higher pressure to take action in the field of environmental policy largely by making legal instruments more effective; genuine innovations in environmental policy which would change the structures causing the problems in the first place and the carrying out of a fundamental reform of the environmental organisations and instruments of environmental policy have hardly been seen to date. The first, cautious steps towards a "structural turn-around" have nevertheless been taken, as has been shown above.

As shown in this study (chapter 6), it is not only individual experts and independent institutions at home and abroad which are coming to the conclusion that environmental policy is based on an inflexible approach with conventional attitudes to regulation which has its roots in old-fashioned police law (averting danger) and on the ideology of a neutral state responsible for virtually everything, which is at the top of a social hierarchy and, as an impartial institution, is responsible for ensuring the common good. A consequence of this are the complicated, highly detailed and generally formalistic regulations which require a high level of monitoring, lead to a juridicization of environmental policy⁵¹ and on the whole to inefficient and conflictive policies.

The essence of this criticism of the approach to environmental policy, of the policy style, is shared by many who are responsible for implementation, but also by some government representatives and high-ranking civil servants in the Federal Ministry of the Environment. For example, Claus Stroetmann, until recently the secretary of state in the Ministry of the Environment, said at the working group on environmental issues in February 1994: "I am convinced that we have to find a new approach to the discussion on political strategies to deal with the ecological challenges. We have to bear in mind that the basic conditions for political, economic and social activity have changed with a varying degree of radicality in the last three years. We are now not only in a trough in the economic cycle, we also have structural problems to face. We must recognise that there are structural crises at hand." (*Umwelt*, no. 6, p. 218).

In the meantime the Federal Ministry of the Environment—as shown in chapter 6.2.2—has initiated a systematic review of the instrumental and procedural elements of the existing approach, accompanied by an investigation to determine the usefulness of alternative instruments and procedures. The results so far have not exactly been promising: on the one hand criticism from industry that environmental protection measures are too expensive seems to be relinquishing the responsibility for changes initiated, whereby the reduction in public participation is accepted; on the other hand alternatives are being discussed only very tentatively and cosmetic changes to the existing

several publication by E. U. von Weizsäcker (e.g., 1988/1989) who had stimulated the debate in Germany enormously.

⁵¹ See for a general discussion of the "juridicization of politics" in Germany Landfried, 1994.

range of instruments recommended (see especially *Bundestags-Drucksache* 12/6923 of 28.2.1994).

Throughout their term of office the Federal Government has even increased the degree of juridicization and level of detail of the instruments or, as the SRU 1994 (p. 67) put it, intensified the "almost hectic legislative activity of recent years." This is contrary not only to the recommendations made by experts from theory and practice of environmental policy, but also to the results of the latest thoughts on state theory.

Right across the board in the field of political theory there is a consensus amongst the leading representatives of the various fundamental positions. They all agree that the need to control society has risen drastically, that the forms of control prevalent in the past are proving to be seriously inadequate, that non-hierarchical methods of control which set out general guidelines should be used more, and that finally the state should be more reserved in its desire to exercise control whilst not entirely abandoning its overall responsibility for shaping society. An objective need for state control has been identified mainly because it is not thought possible that the problems of the environment be solved in a purely "evolutionary" manner, nor simply by unleashing market forces (see Jänicke, 1992; Scharpf, 1992; Böhret, 1992; Willke, 1993). The lowest common denominator in the various estimations of the role and capacities of the state is the view that the state is in principle capable of exercising control, in the sense that it has the capacity to "give conceptual guidelines on shaping the social environment through its political institutions" (Mayntz, 1987, p. 32)—on the condition that "yesterday's" forms of control are replaced by modern ones. It is above all the following forms of control which are considered to be modern, ideas which have been proposed by environmental policy experts for a long time now as the way to achieve the ecological modernisation of industrial societies (see Jänicke, 1986; Jänicke, 1992, Weidner, 1993; and Jänicke & Weidner 1995 for an overview of the discussion and relevant literature):

- information control
- decentralised contextual control
- procedural control, and
- arrangements based on dialogue and discussion.

The four forms of control or approaches mentioned are not "pure" types; they have considerable interconnections and overlaps. They are not intended to fully replace conventional, hierarchical forms of state intervention—on the contrary to some extent they need them, in that, for example, procedural regulations, general frameworks or possibilities for participation are subject to comprehensive legal regulations—but they do leave the job of "fine tuning of control" to the sub-systems of society. The state is particularly necessary as the facilitator and guarantor of social self-regulation because otherwise in asymmetrical pluralistic competitive societies those interests which are not so well organised would be systematically at a disadvantage and without the state would have little legal protection. Furthermore, the state is required to define problems which concern society as a whole. It is thus a matter of only partial "de-mystification of the state" (Willke), an act of civilising the Leviathan.

The massive criticism from all sides of the existing instruments in environmental policy and of the procedural rules has—as has been shown in detail elsewhere (Weidner, 1993; 1994)—already led to some albeit quite tentative experiments with alternative procedures, particularly at state and local authority level.

In particular, the increase in unproductive "solutions" to problems, coupled with the generally rising pressure to act in the field of environmental policy, has generated a certain pressure to solve problems in the political and administrative system which has in turn fostered innovation to some extent. On the decentralised level of the administration, where environmental policy is implemented, experiments are increasingly frequently being carried out with new procedures for decision-making and resolving disputes. By contrast to the "informal actions of the administration" which were practised in the past, which included only the addressees of the regulations (emitters) in the negotiations which took place outside the formal procedure, environmentally active groups and members of the public who are not directly affected are now included and in some procedure options their participation is even actively promoted. Environmental groups and organisations are still very sceptical, but the overwhelming majority no longer reject participation on principle; overall an increase in alternative dispute resolution procedures can be noticed (Weidner & Fietkau, 1994).

The reasons that structural reform in Germany takes so long, a fact which might partly explain the great continuity in policy style despite changes of government, are thought by political scientists to lie principally in the specific form of German federalism—the "interwoven policies" of the central government and state governments, which makes radical political changes virtually impossible—and in the neo-corporatistic mode of negotiating fundamental political issues by which a consensual balance of interests between all relevant interest groups (usually this is a tripartism of state, economic interest organisations and trade unions) is aimed for.

A study of the general features of state activity in Germany has reached similar conclusions, which are largely compatible with the results of this study on the area of politics specifically concerned with environmental policy and with its policy style. Seen in an international comparison the features of internal policy making activities by the state in Germany are characterised as being constituting elements of a "middle of the road policy" (Schmidt, 1990). The efficiency of this policy it thought to have two temporarily sharply contrasting sides. This middle of the road politics:

"is particularly not geared to problems requiring rapid action and major changes of course . . . Minor course adjustments can, however, be made. This should be duly acknowledged. Minor changes in course are scarcely noticeable at first but it is a different story in the long term. (. . .)

The advocates of middle of the road politics place emphasis on long-term stability and predictability. This stability can cause problems when it comes to forming a consensus and politically integrating groups with strongly diverging politics and also in social issues which require rapid, co-ordinated intervention which "gets down to business." On the other hand, the Federal Republic of Germany has a remarkable capacity for long-term,

gradual "quiet changes of policy" and on the basis of this a remarkable capacity to take into account new demands, issues and possible solutions." (Schmidt, 1990, p. 30f.)⁵²

Against this background it would seem plausible that the instruments for environmental policy introduced in recent years—seen here as being potentially capable of bringing about structural changes—could be seen as steps which are part of this "quiet change in policy." The new challenges to environmental policy posed by the economic recession which began after the re-unification of the two German states could, however, put a brake on this change. Unlike during the great challenge to environmental policy posed by economic interests groups in 1974, the "official makers of environmental policy" are this time defending their territory pro-actively, indeed going on the offensive. If in the future we look back at environmental policy it will be seen whether progress was made on new paths or small steps taken forward on old paths—a drastic backlash, however, seems unlikely considering the state of development in environmental activities, laws and policies already reached in all systems of society and considering the fundamental changes of the environmental policy network brought about by the increasing co-operation between actors from the state, economy and the organised environmental movement.

10. Bibliography

- Aguilar, S. (1993). Corporatist and Statist Designs in Environmental Policy: The Contrasting Roles of Germany and Spain in the European Community Scenario. *Environmental Politics* 2, 2, 223-247.
- Bach, S., Kohlhaas, M., Meinhardt, V., Praetorius, B., Wessels, H. & Zwiener, R. (1994). *Wirtschaftliche Auswirkungen einer ökologischen Steuerreform. Gutachten im Auftrag von Greenpeace e.V., Berlin: Deutsches Institut für Wirtschaftsforschung.*
- Beck, U. (1988). *Gegengifte. Die organisierte Unverantwortlichkeit.* Frankfurt am Main: Suhrkamp.
- Benz, A. (1989). *Regierbarkeit im kooperativen Bundesstaat. Eine Bilanz der Föderalismusforschung.* In S. v. Bandemer & G. Wewer (Eds.). *Regierungssystem und Regierungslehre* (pp. 181-193). Opladen: Leske + Budrich
- Blazejczak, J., Kohlhaas, M., Seidel, B., Trabold-Nübler, H., Löbbe, K., Walter, J. & Wenke, M. (1993). *Umweltschutz und Industriestandort. Der Einfluß umweltbezogener Standortfaktoren auf Investitionsentscheidungen.* Berlin: Erich Schmidt.
- BMI = Bundesminister des Inneren (Ed.). (1986). *Leitlinien Vorsorge.* Bonn: BMI.
- _____. (1986). *Umweltpolitik der Bundesregierung. Bilanz und Perspektiven.* Bonn: BMI.
- _____. (Ed.) (1984/85²). *Was Sie schon immer über Umweltschutz wissen wollten,* 2nd edition, Stuttgart/Mainz: Kohlhammer.
- BMU = Bundesminister für Umwelt, Naturschutz und Reaktorsicherheit (Ed.). (1992). *Environmental Protection in Germany.* Bonn: Economica Verlag.

⁵² See also Zapf (1991, p. 137) who comes to a rather similar conclusion in his comparison of the performance of different political regimes in Germany from 1949 to 1989.

- _____. (Ed.). (1991). Ökologischer Aufbau. Eckwerte der ökologischen Sanierung und Entwicklung in den neuen Ländern. Bonn.
- _____. (Ed.). (1990a). Umwelt '90. Umweltpolitik: Ziele und Lösungen. Bonn: BMU.
- _____. (Ed.). (1990b). Umweltpolitik. Deutsches Umweltrecht auf der Grundlage des Einigungsvertrages. Bonn.
- _____. (Ed.) (1990c). Environmental Policy. Environmental Report (Summary) 1990 by the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Bonn: Bonner Universitätsdruckerei.
- _____. (1987). Umweltpolitik. Bilanz des Bundesministers für Umwelt, Naturschutz und Reaktorsicherheit. Bonn: BMU.
- Bock, B. (1990). Umweltschutz im Spiegel von Verfassungsrecht und Verfassungspolitik. Berlin: Duncker & Humblot.
- Boehmer-Christiansen, S. & Skea, J. (1991). Acid Politics. London and New York: Belhaven Press.
- Boehmer-Christiansen, S. & Weidner, H. (1992), Catalyst versus Lean Burn. A Comparative Analysis of Environmental Policy in the Federal Republic of Germany and Great Britain with Reference to Exhaust Emission Policy for Passenger Cars 1970-1990. WZB discussion paper FS II 92-304, Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- Böhret, C. (1992). "Zur Handlungsfähigkeit des funktionalen Staates der spätkapitalistischen Industriegesellschaft". In B. Kohler-Koch (Ed.), Staat und Demokratie in Europa. 18. Wissenschaftlicher Kongress der DVPW (pp. 116-129). Opladen: Westdeutscher Verlag.
- Brand, K. W., Büsser, D. & Rucht, D. (1986). Aufbruch in eine andere Gesellschaft. Frankfurt am Main/New York: Campus.
- Brönneke, T. (1993). Vom Nutzen einer einklagbaren Umweltverfassungsnorm. Zeitschrift für Umweltrecht, 4, 153-158.
- Brüggemeier, F.-J. & Rommelspacher, T. (1992). Blauer Himmel über der Ruhr. Geschichte der Umwelt im Ruhrgebiet 1840-1990. Essen: Klartext-Verlag.
- Brun, R. (Ed.). (1978). Der grüne Protest. Herausforderung durch die Umweltparteien. Frankfurt am Main: Fischer.
- Brunner, P. (1993). Subsidiarität—Leerformel oder Orientierungshilfe zur Kompetenzverteilung in der EG?. ifo-Schnelldienst, No. 22, 7-13.
- Bühl, W. L. (1992). Deutschland im sozioökonomischen Systemvergleich. Diagnose und Entwicklungsperspektiven. Opladen: Leske + Budrich.
- Bundesregierung. (Ed.). (1971). Umweltprogramm 1971. Bundestags-Drucksache VI/ 2710. Bonn.
- Carson, R. (1962). Silent Spring. Boston: Houghton Mifflin.
- Cecchini, P. (1988). Europa 1992: Der Vorteil des Binnenmarktes. Baden-Baden: Nomos.

- Daele, W. van den (1994). Umweltschutz als Staatsziel. In J. Gebhardt & R. Schmalz-Bruns (Eds.), Demokratie, Verfassung und Nation (pp. 364-384). Baden-Baden: Nomos.
- Delwaide, J. (1993). Postmaterialism and Politics: The 'Schmidt SPD' and the Greening of Germany. German Politics, 2, 2, 243-269.
- Deutscher Industrie- und Handelstag (1993). Umweltpolitik unter veränderten Bedingungen. No place, January 1993.
- Dierkes, M. & Fietkau, H.-J. (1988). Umweltbewußtsein—Umweltverhalten. Gutachten für den Rat von Sachverständigen für Umweltfragen. Stuttgart and Mainz: Kohlhammer.
- Drexler, A. & Czada, R. (1987). Bürokratie und Politik im Ausnahmefall. Untere Verwaltungsbehörden nach "Tschernobyl". In A. Windhoff-Héritier (Ed.), Verwaltung und ihre Umwelt. Festschrift für Thomas Ellwein (pp. 66-90). Opladen: Westdeutscher Verlag.
- Dreyhaupt, F.J., Dierschke, W., Kropp, L. Prinz, B. & Schade, H. (1979), Handbuch zur Aufstellung von Luftreinhalteplänen. Entwicklung und Ziele regionaler Luftreinhaltestrategie. Köln: TÜV Rheinland GmbH.
- Ehrlich, P.R. & Ehrlich, A.H. (1970). Population, Resources, Environment. Issues in Human Ecology. San Francisco/London: Freeman & Co.
- Ellwein, Th., Leonhard, M. & Schmidt, P.M. (1983). Umweltschutzverbände in der Bundesrepublik Deutschland. Research report for the Umweltbundesamt. Berlin: Umweltbundesamt.
- Fietkau, H.-J. & Weidner, H. (1992). Mediationsverfahren in der Umweltpolitik. Erfahrungen in der Bundesrepublik Deutschland. Aus Politik und Zeitgeschichte B 39/40, pp. 24-34.
- Franke, N. (1992). Zwischen politischer Brisanz und ökologischer Irrelevanz—Die Rolle der Umweltberichterstattung in der ehemaligen DDR. In H. Weidner, R. Zieschank & P. Knoepfel (Eds.), Umwelt-Information. Berichterstattung und Informationssysteme in zwölf Ländern (pp. 411-447). Berlin: edition sigma.
- Frankland, E. G. & Schoonmaker, D. (1992). Between Protest and Power: The Green Party in Germany. Boulder: Westview Press.
- Gärtner, E. (1984). Waldsterben und Umweltpolitik. Informationsbericht Nr. 39 des Instituts für Marxistische Studien und Forschungen. Frankfurt am Main.
- Grimm, D. (Ed.) (1990). Wachsende Staatsaufgaben—sinkende Steuerungsfähigkeit. Baden-Baden: Nomos.
- Guggenberger, B. (1980). Bürgerinitiativen in der Parteiendemokratie. Von der Ökologiebewegung zur Umweltpartei. Stuttgart/Mainz: Kohlhammer.
- Haaß, B. (1993). Handlungsspielräume gemeindlicher Umweltpolitik am Beispiel des Abfallrechts. Berlin: Duncker & Humblot.
- Hansmeyer, K.-H. & Schneider, H. K. (1989). Zur Fortentwicklung der Umweltpolitik unter marktsteuernden Aspekten. Final report on the research project of the Federal Environment Agency, Nr. 10103107, Cologne.

- Hartkopf, G. (1988). Möglichkeiten und Grenzen reglementierender Umweltpolitik. Zeitschrift für Umweltpolitik 3: 209-330.
- _____. (1986). Umweltverwaltung—Eine organisatorische Herausforderung. In: G. Hartkopf et al., Umweltschutz und Verwaltung—Der öffentliche Dienst zwischen politischem Anspruch und Realisierungsnot, (pp. 96-119). Bonn.
- Hartkopf, G. & Bohne, E. (1983). Umweltpolitik, vol. 1: Grundlagen, Analysen und Perspektiven. Opladen: Westdeutscher Verlag.
- Heine, G. (1991). Verwaltungsakzessorietät des Umweltstrafrechts. In L. Schulz (Ed.). Ökologie und Recht (pp. 55-80). Cologne, Berlin, Bonn, Munich: Carl Heymanns.
- Héritier, A. (1993). Problem-Definition, Agenda-Setting and Policy-Making in the European Community. Paper prepared for the ECPR Workshop "Democratic Agenda Setting and Societal Problem Solving", Leiden, April 2-8 (mimeo).
- Héritier, A., Mingers, S., Knill, C. & Becka, M. (1994). Die Veränderung von Staatlichkeit in Europa. Opladen: Leske + Budrich.
- Hesse, J. J. & Ellwein, Th. (1992). Das Regierungssystem der Bundesrepublik Deutschland. Opladen: Westdeutscher Verlag.
- Hey, C. & Jahns-Böhm, J. (1989). Ökologie und Freier Binnenmarkt. Freiburg: schwarz auf weiss.
- Holzinger, K. (1995). A Surprising Success in EC Environmental Policy: The Small Car Exhaust Emission Directive of 1989. In M. Jänicke & H. Weidner (Eds.), Successful Environmental Policy. A Critical Evaluation of 24 Cases (pp. 187-202). Berlin: edition sigma.
- _____. (1994). Politik des kleinsten gemeinsamen Nenners? Umweltpolitische Entscheidungsprozesse in der EG am Beispiel der Einführung des Katalysatorautos. Berlin: edition sigma.
- Hrbek, R. (1988). Umweltparteien. In O. Kimminich, H. Freiherr von Lersner & P.-Chr. Storm (Eds.), Handwörterbuch des Umweltrechts, Vol. 2 (pp. 646-652). Berlin: Erich Schmidt.
- Hucke, J. (1990). Die Entwicklung eines neuen Politikfeldes. In K. v. Beyme & M. G. Schmidt (Eds.), Politik in der Bundesrepublik Deutschland (pp. 382-98). Opladen: Westdeutscher Verlag.
- ipos (1994). Einstellungen zu Fragen des Umweltschutzes 1993. ipos-Schriften 876/875. Mannheim: Institut für praxisorientierte Sozialforschung (ipos).
- Jänicke, M. (1993). Ökologische Modernisierung in entwickelten Industriegesellschaften". In V. von Prittwitz (Ed.). Umweltpolitik als Modernisierungsprozeß. Politikwissenschaftliche Umweltforschung und -lehre in der Bundesrepublik (pp. 15-29). Opladen: Leske + Budrich.
- _____. (1992). Conditions for environmental policy success: An international comparison. The Environmentalist, 12, 1, 47-58.
- _____. (1990a). Erfolgsbedingungen von Umweltpolitik im internationalen Vergleich. FFU rep 90-8, Free University of Berlin.
- _____. (1990b). State Failure, Cambridge: Polity Press.

- _____. (1988). Ökologische Modernisierung. Optionen und Restriktionen präventiver Umweltpolitik. In U. E. Simonis (Ed.). Präventive Umweltpolitik (pp. 13-16). Berlin: edition sigma.
- Jänicke, M., Mönch, H. & Binder, M. (1992). Umweltentlastung durch industriellen Strukturwandel? Eine explorative Studie über 32 Industrieländer (1970 bis 1990). Berlin: edition sigma.
- Jänicke, M. & Weidner, H. (Eds.). (1995). Successful environmental policy. A critical evaluation of 24 cases. Berlin: edition sigma.
- Kaase, M. (1982). Partizipative Revolution - Ende der Parteien? In J. Raschke (Ed.). Bürger und Parteien (pp. 173-187). Bonn: Bundeszentrale für politische Bildung.
- Katzenstein, P. J. (1987). Policy and politics in West Germany. The growth of a semisovereign state. Philadelphia: Temple University Press.
- Kimminich, O. (1987). Umweltschutz, Prüfstein der Rechtsstaatlichkeit. Linz: Veritas.
- Kloepfer, M. (1989a). Umweltstaat. Berlin etc.: Springer.
- _____. (1989b). Umweltrecht. Munich: C.H. Beck.
- _____. (1988). "Umweltrisiken und Haftungsregeln—Rechtspolitische Aspekte." Zeitschrift für Umweltpolitik 3: 243-58.
- Knoepfel, P. (1995). New Institutional Arrangements for a New Generation of Environmental Policy Instruments. In B. Dente (Ed.). Environmental Policy in Search of New Instruments (pp. 197-233). Dordrecht and Boston: Kluwer.
- _____. (1979). Öffentliches Recht und Vollzugsforschung. Bern: Haupt.
- Knoepfel, P. & Kissling-Näf, I. (1993). Transformationen öffentlicher Politiken durch Verräumlichung—Betrachtungen zum gewandelten Verhältnis zwischen Raum und Politik. In A. Héritier (Ed.). Policy-Analyse. Kritik und Neorientierung (pp. 267-288). (Politische Vierteljahresschrift, special issue 24) Opladen: Westdeutscher Verlag.
- Kommission der Europäischen Gemeinschaften (1985). Vollendung des Binnenmarktes. Weißbuch der Kommission an den Europäischen Rat. Luxemburg: E.C. Printing Office.
- Krusewitz, K. (1981). Umweltpolitik in der BRD (1970-1980). In Alternative Umweltpolitik, Argument SB 56 (special issue). Berlin.
- Küppers, G., Lundgreen, P. & Weingart, P. (1978). Umweltforschung—die gesteuerte Wissenschaft? Frankfurt am Main: Suhrkamp.
- Landfried, Chr. (1994). The Judicialization of Politics in Germany. International Political Science Review 15, 2, 113-124.
- Landua, D. (1989). Umwelt. In Statistisches Bundesamt (Ed.). Datenreport 1989. Zahlen und Fakten über die Bundesrepublik Deutschland (pp.495-504), Bonn.
- Langguth, G. (1984). Der grüne Faktor. Von der Bewegung zur Partei? 2nd edition. Osnabrück/Zurich: Edition Interfrom.

- Laufs, P. (1991). Ökologische Orientierung der Sozialen Marktwirtschaft, Zeitschrift für angewandte Umweltforschung 4, 1, 5-14.
- Lautenbach, S., Steger, U. & Weihrauch, P. (1992). Freiwillige Kooperationslösungen im Umweltschutz. Ergebnisse eines Gutachtens und Workshops. Köln: Bundesverband der Deutschen Industrie e.V.
- Lehmbruch, G. (1992). The Institutional Framework of German Regulation. In K. Dyson (Ed.), The Politics of German Regulation (pp. 29-82). Aldershot etc.: Dartmouth.
- _____. (1989). Institutional linkages and policy networks in the federal system of West Germany. Publius, 19, 4, 221-235.
- Lehmbruch, G. & Schmitter, Ph. (Eds.). (1982). Patterns of Corporatist Policy Making. London: Sage.
- Leonhard, M. (1986). Umweltverbände. Opladen: Westdeutscher Verlag.
- Lersner, H. von (1991). Die ökologische Wende, Berlin: Corso im Siedler Verlag.
- Linse, U. (1986). Ökopax und Anarchie. Eine Geschichte der ökologischen Bewegungen in Deutschland. Munich: Deutscher Taschenbuch Verlag.
- Lübbe-Wolff, G. (Ed.) (1993). Umweltschutz durch kommunales Satzungsrecht. Berlin: Erich Schmidt.
- Malunat, B. M. (1994). Die Umweltpolitik der Bundesrepublik Deutschland. Aus Politik und Zeitgeschichte B 49/94, 3-12.
- Margedant, U. (1987). Entwicklung des Umweltbewußtseins in der Bundesrepublik Deutschland. Aus Politik und Zeitgeschichte B 29, 15-28.
- Mayntz, R. (1987). Politische Steuerung und gesellschaftliche Steuerungsprobleme—Anmerkungen zu einem theoretischen Paradigma. In Th. Ellwein, J. J. Hesse, R. Mayntz & F. W. Scharpf (Eds.), Jahrbuch zur Staats- und Verwaltungswissenschaft 1 (pp. 89-110). Baden-Baden: Nomos.
- Mayntz, R., Derlien, H.-U., Bohne, E., Hesse, B., Hucke, J. & Müller, A. (1978). Vollzugsprobleme der Umweltpolitik. Empirische Untersuchung der Implementation von Gesetzen im Bereich der Luftreinhaltung und des Gewässerschutzes. Stuttgart/Mainz: Kohlhammer.
- Meadows, D.H., Meadows, D.L., Randers, J. & Behrens, W.W. (1972). The Limits to Growth. New York: Universe Books.
- Meissner, W. & Hödl, E. (1978). Auswirkungen der Umweltpolitik auf den Arbeitsmarkt. Bonn: Bundesministerium des Innern.
- Mertens, M. & Müller, H. G. (1987). Der Aufbau des Bundes-Umweltministeriums. Verwaltungsarchiv 78, 4, 459-474.
- Mez, L. (1995). Reduction of exhaust gases at large combustion plants in the Federal Republic of Germany. In M. Jänicke & H. Weidner (Eds.), Successful environmental policy. A critical evaluation of 24 cases (pp. 173-186). Berlin: edition sigma.

Müller, E. (1989). Sozial-liberale Umweltpolitik. Von der Karriere eines neuen Politikbereichs. Aus Politik und Zeitgeschichte B 47-48, 3-15.

_____. (1986). Innenwelt der Umweltpolitik. Sozial-liberale Umweltpolitik—(Ohn)macht durch Organisation? Opladen: Westdeutscher Verlag.

MURL = Minister für Umwelt, Raumordnung und Landwirtschaft des Landes NRW (Ed.) (1993), Zehn Jahre Umweltprogramm NRW und Reformperspektiven für die 90er Jahre. Düsseldorf: MURL.

_____. (1990). EG-Binnenmarkt: Eine Herausforderung für den Umweltschutz. Düsseldorf: Landesamt für Agrarordnung NRW.

Norton, A. (1994). International Handbook of Local and Regional Government. A Comparative Analysis of Advanced Democracies. Aldershot: Edward Elgar.

OECD (1993). OECD Environmental performance reviews: Germany. Paris: OECD.

_____. (1989). Environmental Data Compendium. Paris: OECD.

Pehle, H. (1988). Das Bundesumweltministerium: Neue Chancen für den Umweltschutz? Verwaltungsarchiv 79, 2, 184-209.

Peters, H. P., et al. (1987). Die Reaktionen der Bevölkerung auf die Ereignisse in Tschernobyl. Ergebnisse einer Befragung. Kölner Zeitschrift für Soziologie und Sozialpsychologie 39, 4, 764-782.

Petschow, U., Meyerhoff, J. & Thomasberger, C. (1990). Umweltreport DDR. Bilanz der Zerstörung, Kosten der Sanierung, Strategien für den ökologischen Umbau. Frankfurt am Main: S. Fischer.

Poguntke, T. (1992). Between ideology and empirical research: The literature on the German Green Party. European Journal of Political Research 21, 4, 337-356.

_____. (1993). Alternative Politics. The German Green Party. Edinburgh: Edinburgh University Press.

Raschke, J. (1993). Die Grünen. Wie sie wurden, was sie sind. Cologne: Bund-Verlag.

Rehbinder, E. (1992). Rethinking Environmental Policy. In G. Smith, W. Paterson & S. Padjet (Eds.), Developments of German Politics (pp. 227-246). London: McMillan.

_____. (1989a). Das Vorsorgeprinzip im internationalen Vergleich. Report for the Federal Environment Agency (F&E-project 10106022); published as a book in 1991 (Düsseldorf: Werner-Verlag).

_____. (1989b). The Federal Republic of Germany. In T. T. Smith Jr. & P. Kromarek (Eds.), Understanding US and European Environmental Law. A Practitioner's Guide (pp. 8-20). London etc. : Graham & Trotman/Martinus Nijhoff.

_____. (1988). The 'Right to the Environment' in the Federal Republic of Germany. In Associação Portuguesa para o Direito do Ambiente (Ed.), International Conference 'Guaranteeing the Right to the Environment', Lisboa, 5-6 February, 1988 (pp. 305-320). Lisbon.

Rehbinder, E. & Stewart, R. (1985). Environmental Protection Policy. Berlin/New York: Walter de Gruyter.

- Reiche, E. (1987). Umweltpolitik im 10. Deutschen Bundestag und im Bundesrat 1983 und 1987. Materialien (German Bundestag). Bonn: Deutscher Bundestag.
- Richardson, J. & Watts, N. (1985). National Policy Styles and the Environment: Britain and West Germany Compared. IIUG discussion paper 85-16. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- Ronge, V. (1990). Zum Politikverständnis des SRU. In H. Schreiber & G. Timm (Eds.). Im Dienste der Umwelt und der Politik. Zur Kritik der Arbeit des Sachverständigenrates für Umweltfragen (pp. 47-60). Berlin.
- _____. (1978). Die Gesellschaft an den Grenzen der Natur. Aufsätze zur politischen Ökologie. Bielefeld: AJZ Druck + Verlag.
- Roth, D. (1994). Was bewegt die Wähler? Aus Politik und Zeitgeschichte, B 11, 3-13.
- Roth, R. & Rucht, D. (Eds.) (1991). Neue soziale Bewegungen in der Bundesrepublik Deutschland. 2nd revised edition. Bonn: Bundeszentrale für politische Bildung.
- Rucht, D. (1980). Von Wyhl nach Gorleben. Bürger gegen Atomprogramm und nukleare Entsorgung. Munich: Beck.
- Sbragia, A. (Ed.). (1992). Euro-Politics. Institutions and Policymaking in the "New" European Community. Washington, D.C.: The Brookings Institution.
- Scharpf, F. W. (1992). Die Handlungsfähigkeit des Staates am Ende des Zwanzigsten Jahrhunderts. In B. Kohler-Koch (Ed.). Staat und Demokratie in Europa. 18. Wissenschaftlicher Kongress der DVPW (pp. 93-115). Opladen: Westdeutscher Verlag.
- _____. (1991). Entwicklungslinien des bundesdeutschen Föderalismus. Leviathan, special issue 12, 146-159.
- _____. (1985). Die Politikverflechtungsfalle: Europäische Integration und deutscher Föderalismus im Vergleich. Politische Vierteljahresschrift, 26, 323-356.
- Scharpf, F. W., Reissert, B. & Schnabel, F. (1976). Politikverflechtung. Theorie und Empirie des kooperativen Föderalismus in der Bundesrepublik. Kronberg/Taunus: Hain.
- Schmidt, M. G. (1992). Regieren in der Bundesrepublik Deutschland. Opladen: Leske + Budrich.
- _____. (1990). Die Politik des mittleren Weges. Besonderheiten der Staatstätigkeit in der Bundesrepublik Deutschland, Aus Politik und Zeitgeschichte (supplement to the weekly Das Parlament), B 9-10, 23-31.
- Schmitter, P. & Lehmbruch, G. (Eds.) (1979). Trends Toward Corporatist Intermediation. London: Sage.
- Schuppert, G. F. (1990). Grenzen und Alternativen von Steuerung durch Recht. In D. Grimm (Ed.), Wachsende Staatsaufgaben—sinkende Steuerungsfähigkeit (pp. 217-249). Baden-Baden: Nomos.
- Siebert, H. (1989, August 14). Interview, Der Spiegel, pp. 33-40.

- SPD—Der Parteivorstand (Ed.). (1993). Umweltpolitik. Reformen für eine dauerhafte Entwicklung. Sozialdemokratischer Informationsdienst 1.
- Sprenger, R.-U. (Ed.) (1994). Das deutsche Steuer- und Abgabensystem aus umweltpolitischer Sicht. München: ifo-Institut.
- _____. (1989). Keine beschäftigungspolitische Wende durch die Umweltpolitik. ifo-Schnelldienst 15, 3-15.
- _____. (1979). Beschäftigungseffekte der Umweltpolitik. Berlin: Erich Schmidt.
- SRU = Rat von Sachverständigen für Umweltfragen (1989). Kurzfassung des Sondergutachtens Altlasten. Bonn.
- _____. (1978). Umweltgutachten 1978. Stuttgart/Mainz: Kohlhammer.
- _____. (1987a). Kurzfassung des Umweltgutachtens 1987. Bonn.
- _____. (1987b). Umweltgutachten 1987. Stuttgart and Mainz: Kohlhammer.
- _____. (1994a). Umweltgutachten 1994. Für eine dauerhaft-umweltgerechte Entwicklung. Stuttgart: Metzler-Poeschel.
- _____. (1994b). Kurzfassung des Umweltgutachtens 1994. Bonn.
- Susskind, L. & Cruikshank, J. (1987). Breaking the Impasse: Consensual Approaches to Resolving Public Disputes. New York: Basic Books.
- Töpfer, K. (1993). Umweltpolitik und Wirtschaftsstandort. Umwelt (BMU) 12, 467.
- _____. (1988a). Entsorgungsmanagement von morgen. Energiewirtschaftliche Tagesfragen 38, 9, 658-662.
- _____. (1988b). Politische Durchsetzbarkeit einer langfristigen Umweltpolitik. Paper presented at a conference sponsored by the Konrad Adenauer Foundation, Bonn, 25 August.
- _____. (1988c). Ökologische Modernisierung des Industriestaates aus der Sicht des Bundes. In T. Ellwein, J. J. Hesse, R. Mayntz & F. W. Scharpf (Eds.). Jahrbuch zur Staats- und Verwaltungswissenschaft, vol. 2 (pp. 239-276). Baden-Baden: Nomos.
- Tsuru, S. & Weidner, H. (Eds.). (1989). Environmental Policy in Japan. Berlin: edition sigma.
- Umweltbundesamt (1993). Umweltschutz—ein Wirtschaftsfaktor. Berlin: Umweltbundesamt.
- _____. (1992). Daten zur Umwelt 1990/91. Berlin: Erich Schmidt.
- _____. (Ed.). (1984). Functions and Organization of Environmental Protection in the Federal Republic of Germany. Berlin: Umweltbundesamt.
- Voss, G. (1993). Umweltschutz und Industriestandort—Kritische Anmerkungen zur RWI/DIW-Studie. Published by the Institut der Deutschen Wirtschaft as a supplement to Umweltreport No. 3/1993, Cologne.

- Weale, A. (1992a). The New Politics of Pollution. Manchester and New York: Manchester University Press.
- _____. (1992b), Vorsprung durch Technik? The Politics of German Environmental Regulation, in: K. Dyson (Ed.), The Politics of German Regulation (pp. 159-183). Aldershot etc.: Dartmouth.
- Weidner, H. (1994). Mediation as a Policy Instrument for Resolving Environmental Disputes—with Special Reference to Germany. In B. Dente (Ed.), Environmental Policy in Search of New Instruments (pp.159-195). Dordrecht: Kluwer.
- _____. (1993). Der verhandelnde Staat. Minderung von Vollzugskonflikten durch Mediationsverfahren. In H. Kriesi (Ed.) Schweizerisches Jahrbuch für Politische Wissenschaft 33 (pp. 225-244). Bern: Haupt.
- _____. (1989a). A Survey of Clean Air Policy in Europe. WZB discussion paper FS II 89-301. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- _____. (1989b). Die Umweltpolitik der konservativ-liberalen Regierung. Eine vorläufige Bilanz. Aus Politik und Zeitgeschichte B 47/48, 16-28.
- _____. (1988). Bausteine einer präventiven Umweltpolitik. Einige Anregungen aus Japan. In U. E. Simonis (Ed.), Präventive Umweltpolitik (pp. 143-166). Frankfurt/Main and New York: Campus.
- _____. (1987). Environmental Protection Policy in the European Community: Development and Problems. Journal of East and West Studies 16, 2, 127-148.
- _____. (1986). Air pollution control strategies and policies in the Federal Republic of Germany. Berlin: edition sigma.
- Weidner, H. & Fietkau, H.-J. (1995). Environmental Mediation: The Mediation Procedure on the Waste Management Concept in the District of Neuss, North Rhine-Westfalia, WZB-paper FS II 95-303, Berlin: Wissenschaftszentrum Berlin für Sozialforschung (in print).
- Weidner, H., Zieschank, R. & Knoepfel, P., (Eds.) (1992). Umwelt-Information. Berichterstattung und Informationssysteme in zwölf Ländern, Berlin: edition sigma.
- Weizsäcker, E. U. von (1994). Erdpolitik. Ökologische Realpolitik an der Schwelle zum Jahrhundert der Umwelt, 4th edition, Darmstadt: Wissenschaftliche Buchgesellschaft.
- _____. (1988/89). Plädoyer für eine ökologische Steuerreform. Scheidewege 18, 197-203.
- Weßels, B. (1989). Politik, Industrie und Umweltschutz in der Bundesrepublik: Konsens und Konflikt in einem Politikfeld 1960-1986. In D. Herzog & B. Weßels (Eds.). Konfliktpotentiale und Konsensstrategien. Beiträge zur politischen Soziologie der Bundesrepublik (pp. 267-306). Opladen: Westdeutscher Verlag.
- Wey, K.-G. (1982), Umweltpolitik in Deutschland. Kurze Geschichte des Umweltschutzes in Deutschland seit 1900. Opladen: Westdeutscher Verlag.
- Wicke, L. (1989). Umweltökonomie. Eine praxisorientierte Einführung. 2nd ed. Munich: Franz Vahlen.

Willke, H. (1992). Ironie des Staates. Grundlinien einer Staatstheorie polyzentrischer Gesellschaft. Frankfurt/Main: Suhrkamp.

_____. (1989). Systemtheorie entwickelter Gesellschaften. Dynamik und Riskanz moderner gesellschaftlicher Selbstorganisation. Weinheim/Munich: Juventa Verlag.

Winkelmann, Chr. (1992). Untersuchung der Verbandsklage im Umweltrecht im internationalen Vergleich. UBA-Forschungsbericht Nr. 90104/36. Berlin: Umweltbundesamt.

Zapf, W. (1991). Zum Verhältnis von sozialstrukturellem Wandel und politischem Wandel: Die Bundesrepublik 1949-89. In B. Blanke & H. Wollmann (Eds.), Die alte Bundesrepublik. Kontinuität und Wandel (pp. 130-139). Sonderheft Leviathan (special issue).

Zimmermann, K. W. (1990). Zur Anatomie des Vorsorgeprinzips. Aus Politik und Zeitgeschichte B 6, 3-14.

Zimmermann, K. W. & Kahlenborn, W. (1994). Umweltföderalismus. Einheit und Einheitlichkeit in Deutschland und Europa. Berlin: edition sigma.