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ENVIRONMENTAL POLICY AS AN INTERPLAY
OF PROFESSIONALS AND MOVEMENTS
- THE CASE OF AUSTRIA

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ENVIRONMENTAL POLICY AS AN INTERPLAY OF PROFESSIONALS AND MOVEMENTS - THE CASE OF AUSTRIA.

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Abstract

Following a classification of environmental politics into a) longterm structural politics, b) risk control regulation, c) space regulation and habitat protection und d) public infrastructure for supplies and waste disposal the interplay of the political/administrative system and ecological movements is being analyzed. Typical strategies of both actors on a federal, state and local level, their functional preconditions and limitations are being described. The last decade of Austria's environmental politics serves as an empirical "test" for the usefulness of this framework. We conclude that the administrative/political system deserved movemental forms of politics in order to introduce environmental concerns effectively into the political decision process. We also discuss mediating structures such as information systems, private-law contractual forms, independent environmental counselling, green parties and environmental impact assessment.

Keywords: environmental politics, environmental movements, environmental sociology, Austria, Europe.

Sociologists tend to have a very limited view on environmental issues. But I think it is time to bridge the gap between a very general theoretical criticism of society's (and our civilization's) neglect of "environmental problems" and concrete possible strategies. I think the study of the interplay between ecological movements and professional politics allows some of the intellectual experimentation to gradually fill up this gap.

To my mind there exists no field of social development where non-institutional forms of politics nowadays play such a functionally important role as with regard to environmental issues. (What comes close is gender relations - but here the chances of restructuration have already become more institutionalized).

One of the most influential German sociologists, Niklas Luhmann (1986), claims the environmental movement to produce "noise" for the political system rather than information that could be processed appropriately. I think he highly underestimates the productive restructuring capacities of these "irritations". I claim on the contrary the only realistic chance of "ecological communication" must be sought in those irritable interventions.

Beck (1986; 1988) expects remedy against environmental destruction from "turning technocracy against itself". He focusses almost entirely on technological phenomena of risk generation and risk control. He loses many other elements of environmental relations (particularly elements related to the preservation of joy and lust rather than to fears) out of sight.

In contrast to Beck I believe that "turning technocracy against itself" (be it industrial or political technocracy) only provides remedy to a small range of imminent problems. More fundamental economic and social changes towards ecological compatibility does and will depend upon an interplay of professional politics and interconnected social movements.

What I shall attempt in this contribution is to

(a) draw attention to the wide range of politics relating to environmental issues by classifying them into a typology and screening them over the landscape of the political system,

(b) demonstrate how issues and political methods of the environmental movement on each level functionally relate to the systematic deficiencies of this system and

(c) illustrate these analytical conclusions with some material from Austrian environmental politics.

I use the term "environmental politics" in a broad sense. If I should define it like Simonis (1988) as the "total of goals and measures of social actors that regulate the interaction of society and environment as a natural system" (p.7), it would logically mean just about everything from abortion legislation to research funding. So for practical reasons I will confine myself to issues that have been questioned politically under an "ecological perspective", if not by professional politics and administration so at least by environmental movements¹.

TYPES OF ENVIRONMENTAL POLITICS

I suggest to differentiate the following types of environmental politics. They are supposed to differ according to the range of problems to which they refer, according to the political and administrative measures they imply, and according to the typical interplay between professional politics/administration and environmental movements.

Type 1: Long term structural politics on economic, technological and social priorities.

These policies cover a wide range of problems - they refer to the core mechanisms of society's modes of production and consumption. They also refer to a wide range of political and administrative measures, located at all levels of the social system².

Here environmental movements have played and play a most crucial part in destabilizing basic presumptions: be it economic growth, scientific rationality, the superiority of the human race over "nature" or the short time horizon of human planning.

An indicator of change for type 1 politics is a "shifting of values", or at least a shifting of terminology (such as the priority of "environmental concerns" in public opinion polls, or the programmatic declaration of "sustainability" or "eco-social market economy" as guideline for government politics).

But such changes should also materialize in the more technical aspects of political planning for energy, industry, transportation, agriculture and defense. And here I claim the dominant tendency of Austria's political system still to be pattern maintenance ("more of the same") vis-a-vis "politics of impediment" on the side of the environmental movement (Glatz 1986; see table 1). I will back up this claim with some more detailed descriptions below.

| INTERPLAY OF "PROFESSIONAL" AND "MOVEMENTAL" FORMS OF ENVIRONMENTAL POLITICS | | | |
|---|--|--|------------------------------------|
| Type of environmental politics | dominant tendencies of political system | typical policies of environmental movements | typical outcome |
| structural economic/ technological policies | pattern maintenance (more of the same) | politics of impediment | less of the same |
| risk control regulation | incremental limitation of risks / control gaps | politics of fear | reduction of control gap |
| space regulation and habitat protection | priority to the economic use of property | politics of conservation of nature | ? |
| public infrastructure for supplies & waste disposal | efficiency model: uniformity & centralization | NIMBY-politics "not in my back yard!" | decentral variability, experiments |

Table 1

Type 2: Risk control regulation

As Prittwitz (1988) argues this type of policies is a kind of extension of traditional "policing functions" of the state into the new realm of environmental risks. It makes use of basically coercive measures to protect public goods of high priority: it usually relates

to peoples health conditions. The typical procedure is the legal fixation of maximum or limiting values for substances or processes which are considered dangerous beyond that limit.

Some of the common features of these policies are:

- (1) They refer to important, well known and fairly immediate threats, usually on a one-dimensional (substance-by-substance) basis
- (2) They rely on bureaucratic control, based on elaborate (and highly expensive) scientific measurement-devices; this can be fairly effective if applied to centralized processes (such as the production of mineral oil, or drinking water facilities of large cities), but tends to fail with spatially, socially or economically widely spread processes.
- (3) They fit well into more traditional state activities of "policing" and are usually located in standard administrations of risk control distributed all over the political and administrative system and mixed into all sorts of different agenda. They typically combine authoritative procedures, official secrecy, a lack of effective and transparent feedback-mechanisms and an emphasis on law rather than on the efficiency of goal attainment.
- (4) The political bargaining process by which such regulations are achieved is highly professionalized: administration, professional interest groups and scientific experts cooperate in a technical compromise. This compromise tends to be incrementalist: normative regulations will never depart from existing reality too far - be this a matter of struggle in each case.

Environmental movements relate to these policies typically by what Luhmann (1986) calls "politics of fear"³ (see table 1), thereby putting pressure on standards and controls. This pressure is exerted by influence on professional experts on the one hand and by public campaigning against spectacular deviants on the other (e.g. actions of Greenpeace concerning water-polluters).

Type 3: Space regulation and habitat protection; rehabilitation

Purposeful political and administrative regulations concerning the use of space seem to be a most difficult task. Be it for purposes of water resource protection (about 25% of Austrias territory is defined as water-protection area), for purposes of natural habitat

protection (another 8%), as protective forest zones or simply as greenland (buildings prohibited) - the defense of each acre against misuse requires continuous efforts.

In Austria the size of areas under some kind of protection increases by approximately 50% in each decade (Fischer-Kowalski 1988), but the degree of protection tends to be weak, already on the legal level, let alone on the practical. In addition to this, spatial protection alone does not stop degradation: pollution through air or water, and the consequences of e.g. river regulations on groundwater levels affect these areas in a destructive manner (Katzmann & Schrom 1986).

So even on the level of the administration these spatial protection strategies bear a certain desperate character. The extinction of animals (even formerly very common animals like butterflies, singing birds, hedgehogs, frogs etc.) and plants (such as fir-trees) continues at high speed.

I cannot see how public administration alone will in the future be more capable of effective spatial protection - almost all well organized political and economic interests stand against it⁴. And because of the continuous efforts afforded the possible strategies of the environmental movement (particularly "natural protection organizations") are very limited as well. The declaration of an area as "natural park" often serves as the environmentalists' political alternative to its use for an energy-utility or highway-site, and this sometimes succeeds. But the maintainance of such areas poses severe financial problems that could only be solved by a redistribution of public expenditure. Another strategy of the environmental movement consists in buying small but strategic parts of land to acquire the legal property rights (still the core of rights for neighbourhood-influence) necessary for interventions against degrading measures in the surrounding area - again a financially difficult task.

So I would conclude that neither the political system's nor the environmental movement's interventions into the regulation of space, nor the interplay between them, seem to produce an outcome effective in the sense of environmental protection. (See table 1)

Type 4: Public infrastructure for supplies and waste disposal

Much of what was traditionally considered a (usually communal) service of public infrastructure has now become part of environmental politics. Be it the supply of drinking water, energy, heat, sewage, waste disposal, public transport, roads or areas

of recreation - all that is being reconsidered and often relabelled under an environmental aspect. But this re-labelling did not change the strategies of "modernization" that had dominated the decades before: technical uniformity and centralization. One may even say that the introduction of environmental considerations accelerated this type of modernization.

It is obvious that a certain degree of centralization of environmental infrastructure is economically and technically necessary. But at the same time this implies an expropriation of local responsibility and a destruction of the visibility of the connection of deeds and consequences. In many cases it can even lead to stabilizing a high degree of environmental damage. This may be the case with large sewage plants that require a constantly high level of organic load, or with waste combustion that only works well technically and economically with a certain composition and amount of waste input, thereby counteracting efforts to separately collect and recycle paper and vegetables.

Environmental movements serve a very important function in this process: it mobilizes resistance against damage to local quality of life by central infrastructure: the so-called NIMBY principle⁵ ("not in my back yard"). "It is alright to establish waste combustion plants, highways, sewage plants, electrical power utilities... - but somewhere else, please!". Whereas communal politics is often caught in the trap of "technical necessity" sweetened by the promise of jobs and tax income, local environmental initiatives bring together the people who would not profit from the goodies, and they gather the arguments concerning the local unsuitability. And although this is often criticised as illogical and irresponsible, it serves a good purpose: were it so easy to find end-of-pipe technological solutions to problems, no structural solutions would ever be sought.

As a preliminary conclusion I would state that the environmental movement(s) in Austria have contributed a lot to restructure several fields of politics and administration along the above lines; and that the interplay between the professional political/-administrative system and movement-type politics of various kinds has become the most productive force indispensable for environmental protection - if not for politics at large. To back up such a strong statement I will scrutinize several fields of politics in Austria, on a federal, a state and a communal level.

AUSTRIAN FEDERAL, STATE AND COMMUNAL ENVIRONMENTAL POLICIES DURING THE LAST DECADE - AND THEIR INTERPLAY WITH ENVIRONMENTAL MOVEMENTS

(1) Federal level politics

The position of the federal government is legally not too strong, as far as environmental politics is concerned. A federal ministry for the environment has been established in the early Seventies. But its competences have never been very far-reaching and became regrouped after each elections. The constellation at the time being is a ministry for "environment, youth and the family", led by an unconventional female minister with a strong inclination for impressive public announcements.

A few years ago the protection of the environment was declared a constitutional goal; "eco-social market economy" has become part of the present government's program. In the last three national elections all parties competed for an environmental image. A green-alternative party has set up its candidate for the president's elections and failed, but gained several seats in parliament with about 6% of the votes.

(1.1) Federal longterm structural policies

At the core of this lies the political planning for industry, energy, traffic, agriculture and defense. Here the basic priorities have so far encompassed "environmental concerns" only marginally. Nevertheless some major changes have taken place, enforced either by economic circumstances or by powerful civil movements.

Energy politics

In this realm the most spectacular events have taken place that demonstrate the power of civil "politics of impediment" (see table 1). In 1978, after years of struggle all over the political landscape the (social democratic) government was forced by a 51%-majority in a referendum, in which one third of the adult population participated, to

close down the only Austrian nuclear power plant; nuclear power as source of energy in Austria is politically out.

About the same amount of mass mobilization was achieved in 1984, when the national energy agency tried to build a large electric utility at the Danube at the cost of a natural forest. Several thousand people from all over Austria occupied this forest in the middle of a strong winter to stop the works. As nobody would have foreseen Austria's most popular newspaper joined in the campaign, the project was stopped and the chancellor had to resign. Several attempts of the national energy agency since to expand the use of water power (a major source of energy in Austria) through large construction projects have not been very successful either: they were blocked by spectacular movements (e.g. in Dorfertal in the Tyrolian Alps finally in 1989) or at least postponed by severe struggles. Only a small fraction of the projects of long term planning could be realized within the last years.

Nevertheless the national energy agency continues its politics of giant projects of expansion (despite stagnating energy consumption). There is little political support though for energy-saving-strategies (except for those measures taken in the context of the oil-crisis 1973 and after) nor for "alternative", "small scale"-ways of obtaining energy. And the energy-industry has learned its lesson. Nowadays large water utilities are being argued as environmental protection: They are propagated as substitutes for dangerous nuclear power plants in the Eastern European countries just across Austria's borders, and as necessary stabilizers of river soles and groundwater supply.

Industrial politics

In Austria a large part of the basic industry (apart from electricity mining, steel and chemistry) is state owned, which constitutes a specific alliance between the political system and an environmentally particularly problematic part of the economy. This alliance has undergone severe crises during the last decade of which the confrontation with the environmental movement was just a minor one. But still: in this context a large production unit of aluminium (outstanding for its high consumption of electrical energy and the pollution of air and water) will be closed down after a long series of interventions from environmentalists.

But a long term concept of restructuration of Austrian industry according to ecological considerations is still not in sight, neither on the level of taxation nor on the level of

public investment. Even policies of public subsidization show little - if at all - influence of environmental considerations.

Transportation politics

Private car traffic as means of transportation, and the generous public service of the appropriate infrastructure of highways and high-speed roads on federal level still has priority in Austria. The rate of expansion has slowed down, though - last not least because enormous interest-payments for previous construction projects now limitate the expenditures for new ones. On the other hand civil resistance is a relevant obstacle: during the last ten years hardly any larger project, not even the construction of few kilometers of missing links between existing highways, passed without serious struggle. But with regard to traffic construction projects - in contrast to energy projects - environmental movements have not been so successful: most of the controversial projects were realized in the end. Nevertheless a shift of attention towards railroad modernization can be observed on federal level in the last few years with the intention of getting some of the intolerable increase in road haulage back on train⁶. As early as 1982 the federal government decided upon a plan of a 50%-reduction of truck transit within the forthcoming decade. Truck transit **increased** by the same amount in this period instead. By now more effective measures are being taken (see below).

Agricultural and forestry politics

On federal level agricultural politics still mainly consists in subsidizing a modernization process that focusses on raising the level of productivity (per square metre/per working hour) by industrial rationalization and economies of scale - although this is seemingly inconsistent with the facts of chronical overproduction, sharpening problems of equity between disadvantaged alpine areas and favorable areas and an obvious increase of environmental damages. This continues despite verbal declarations of the contrary. Even for forestry - which is very much alarmed by widely spread forest dieback - it can be shown that an ever-increasing proportion of state expenditure is being invested in the construction of roads (to make forests more accessible for machines) and in protective constructions against (the increasing amount of) catastrophes, whereas public investments into the biological substance of the forests (like afforestation) are decreasing.

Nevertheless agricultural and forestry politics have never aroused major conflicts with environmentalist movements on a central level⁷.

The interplay between federal structural policy and the environmental movement can be summarized as follows:

- (1) It is obviously very difficult for federal politics and administration to reorient their **structural priorities** towards a higher degree of compatibility with environmental requirements - even if such claims are omnipresent on a verbal and legitimacy level.
- (2) The environmental movement must be considered a very effective agent in enforcing such reorientations by **politics of impediment**. The issues for which the necessary political energy and media support could be raised were typically **not** immediate threats of environmental damage to peoples living space, but rather **physical construction projects highly symbolical for one more step in the wrong direction**.
- (3) Where structural politics does not so much take the form of spectacular "new projects" but rather remains incrementalist (as is the case in agriculture) it does not render any occasions for mass mobilization - however severe the damages caused may be.

(1.2) Risk control regulation

Legislative measures for risk control have increasingly become a matter of the national parliament - and the environmental movement has exerted quite some pressure towards centralization of such decisions.

A lot of measures of this type have been taken on the national level in Austria during the last decade: lower limits for the content of sulphur and lead in mineral oil and lately also of other toxic substances in the exhaust of motorcars (practically enforcing the use of catalyzers); new limits for chemicals in drinking water, for the emission of industry and communes into rivers, for maximum concentrations of toxic substances in the air ("smog-alarm-standards"), radioactivity in food, etc. In the same category belong regulations of information on new chemicals and hazardous wastes. No agreement has so far been reached between the national government and the federal states as to the regulation of the use of pesticides in agriculture.

Expensive systematic measurement devices have been established with regard to the state of the forests and air contamination in critical areas.

Whereas risk control **legislation** typically happens on national level, the effectuation of control is a matter of the states. There one can find two key deficiencies: control gaps on the one hand, a lack of efficient feedback mechanisms on the other.

The crucial instrument for this would be systematic monitoring of processes (states and actions taken) and the comprehensive public exposure of these informations. Central risk control regulation without a technologically advanced system of central information does not work - and only public accessibility of such information will render the necessary political pressure for effective control. This is exactly what Japan (and to a certain degree the US) have done (Weidner 1987), but what is lacking in Austria, particularly as far as industrial and agricultural emissions are concerned (Fischer-Kowalski & Lackner 1991).

This is the point where environmental movements play their part: independent measurements by civil experts and broad public campaigning raise the necessary pressure for law enforcement. A good example of this were Greenpeace's activities concerning the emissions of the paper industry into rivers (amounting to a heavier organic load than all inhabitants of Austria taken together): in some cases this resulted in the administrative enforcement of regulations and one big plant was even closed down (St. Magdalen, 1989). There now seems to be some acceptance of the necessary interplay between public information and the effectuation of control on the part of the government: A kind of "freedom of information act" for environmental issues is now in preparation and hopefully will be passed in 1991.

(2) State level politics

In Austria the federal states are the most powerful part of the political-administrative system with regard to environmental politics. This holds true for legal competences and financial as well as administrative resources. Although their functions are not so much dissimilar to the national level, the interplay between the political/administrative system and the environmental movement on state level is somewhat different. On the one hand the states can exert a higher amount of social control over their population (the political control of access to jobs and to the regional media is much more effective), on the other

hand it is more difficult to involve the central media (such as TV or the large nationwide newspapers) into struggles within one federal state. But this seems to have been changing during the last years: the environmental movement gradually learns to bridge the gap between "central level" and "local level" and develop appropriate organizational structures on "federal state level" (both structures of informal cooperation and party formation).

(2.1) Long term structural politics

One might gain the impression that gradually a certain degree of diversity is developing between the federal states with regard to the importance of ecological considerations in their structural politics. Some states promote their giant energy and traffic projects as ever, some are getting a little more careful. Some plan their industrial and touristic development simply by labor utilization and taxation standards and some start taking environmental consequences into consideration. Environmental issues dominate all election campaigns on a verbal level - but how far the practical consequences go is hard to tell. In any case it does not seem a matter of "socialist" or "conservative" dominance in the state governments, but rather a function of the threat of political success of "green-alternative" parties (who acquired between 3% and 11% of the votes during the last years).

In two recent cases an interesting coalition between the environmental movement and state governments was formed, putting pressure on the national government. In one case it concerned the acquisition and stationing of military aeroplanes (Draken), against which a long fight was launched by such a coalition and lost. In the other case it was on the issue of truck transit where the Tyrolean government finally demanded the prohibition of night traffic on highways by the federal minister of traffic -and succeeded, although this is causing a lot of trouble with Austrias negotiations with the Common Market.

(2.2) Risk control regulation

As explained above on state level there is not so much risk control legislation (some of which has been transferred to the national level only recently) but **risk control effectuation**. In a subsidiary manner or directly the federal states control most of the administration and technology for risk assessment and policing. This is exerted mainly by regional authorities competent for industry and trade, for construction, for forestry,

for agriculture, for traffic, for health, for water etc. This is a very traditional authoritative structure with severe drawbacks. (a) There exists nothing like "political responsibility" on this level, but only administrative bodies responsible to their superiors. This makes them relatively immune, or irresponsible, to public local conflicts, but not to well institutionalized interests. (b) Due to the hierarchical structure there exists little horizontal communication between the different offices on the regional level, discouraging any integrated approach to problem-solving or regulation. The water-office does not know what the industry-office permits or prohibits and vice versa. (c) The information-processing is extremely traditional. On the regional level there exist enormous "shoe boxes" of information that can hardly be transferred to the superior levels in a comprehensive and aggregable manner, let alone to the public (even where they are supposed to be publically accessible).

This does not only produce the above-mentioned "control-gap", but also distorts communication between civil environmental movements and the administration. Conflicts over risk control must either be escalated to the level of the state government, or they must be fought on the level of the communes - who often lack the legal competence and resources to resolve them.

Nevertheless the interplay between federal administration and environmental movements probably improves the functioning of the legal authorities. The "problem-oriented" approach of "civil experts" forces the authorities to integrate some of their institutional knowledge horizontally (may it be only in defense against those intruders), and the increasing risk of detection of "control-gaps" motivates for their closure.

(2.3) Space regulation and habitat protection; rehabilitation

The states have the competence of space legislation and legislation for the protection of natural resources. They also have a strong influence upon the re-array of agricultural land and the agricultural road system; and they plan and control a large part of the public road system.

To all this applies what I have stated about the problems of space regulation above; I will discuss it in more detail for communal problems below.

(3) Local/communal level politics

The possible effect of communal politics upon the environment has long been underestimated. "Modernization" during the Fifties, Sixties and Seventies meant generating the same "modern" structures everywhere - or else become a forlorn periphery bound to die. During the last decade a revitalization of possible communal diversity seems to be taking place - communal "individuality" and local "quality of life" have gained respect. Environmental concerns now put weight on both sides of the process. On one end they press in the direction of "modernization" meaning unification and increasing dependence upon centralized structures of resource supply and waste removal, eliminating decentral elements as oldfashioned and uncontrollable sources of risks (see below). On the other end they support the re-evaluation of communal public goods such as air, clean rivers, natural landscape and silence. And they stimulate civil movements to test out communal power of resistance against burdens imposed upon them by central decisions. The outcome varies - one may say that the communes are very strong actors in environmental destruction (of landscape, of natural habitats, of running waters), but also very strong actors in environmental protection. This holds true despite the fact that the communes' legal competences are weak - they focus on the removal of household wastes, mainly. But their overall bargaining power is not so small. The Japanese institution of private law "environmental contracts" between communes, industry and civil movements (according to Weidner 1987 more than 20 000 of them by now) seems to be an excellent political chance for maintaining local responsibility and using inter-communal competition for environmental concerns. But Austria is still far from that. I will discuss this in more detail for the two types of policies where communes exert a strong influence.

(3.1) Space regulation and habitat protection; rehabilitation

Communes decide - within the frame legislation of the state - upon the regulations for the use of space; the communal road system amounts to more than 80% of all public roads; they decide upon tourist infrastructure and construction permissions. They do so by bodies voted for by local elections. So they are highly sensitive to local public opinion, and to local economic interests.

In Austria no information system exists which would allow one to judge whether the communes changed their space regulation policies in the last decade. The only thing one

can tell is that there exists a very large number of local environmental initiatives: against road construction and traffic projects, for the protection of habitats, for traffic regulations against noise, for the de-regulation of rivers, against tourist infrastructure (e.g. new skiing lifts), for the clearing of forests of wastes... And in many communes green-alternative voting lists pose a serious threat to the established parties. So the influence exerted on this sensitive part of the political system by environmentalist movements should be quite strong.

But the overall outcome nevertheless is supposedly weak. The most important precondition of success is a possible alliance with some kind of local economic interest: be it tourism (that for example helped to rehabilitate Austria's lakes within a decade), be it agriculture, forestry or fishing. Without such an alliance even severest damages do not suffice to raise adequate support for environmental concerns.

The dominant strategy of the communes is still the extension of areas for habitation and industry, fostered by the rising housing standards (often: secondary domiciles) of the population and inter-communal competition for industry-sites. All this is of course backed by real-estate business. No effective counterbalance against these mechanisms is in sight so far.

(3.2) Public infrastructure for resource supply and waste disposal

The supply of drinking water, of electrical energy and gas (and in some cases heat), of public transportation and the infrastructure for private transportation are communal obligations. The same holds true for sewage systems and the disposal of wastes.

During the last decades a large proportion of communal expenses has gone into the modernization and centralization of this infrastructure. Private wells have been closed down in favor of large water-pipe systems (more than 80% of the population are now connected to central water supplies, twenty years ago it was less than 60%), almost as many are now connected to common sewage systems and almost everybody to public waste collection systems. Local waste disposal sites have been closed down in favor of regional and more professionally controlled larger ones. Local power stations were given up for a central monopoly of supply with electricity.

The communes have been very active in this process, forming associations with neighbouring communes for these purposes and managing these transformations at a fairly quick pace.

This pace was particularly quick compared to industry: the proportion of inhabitants connected to sewage disposal plants increased from less than 20% to about 60% during the last decade, whereas for industry this proportion still amounts to less than 20%. (Similar results can be obtained if one compares the frequency of exhaust-filtering devices for communal establishments such as waste combustion with industrial establishments of similar pollutive capacity.)

The environmental movement's influence upon this process resembles what on national level I labelled "politics of impediment", but is usually much more closely related to the private interests of local residents: "NIMBY"-politics ("not my back yard"). These "Nimby-politics" have conserved local parks, cemeteries or gardening areas in cities; in the city of Vienna they have prohibited any extension of the highway system, blocked further sites for waste combustion and forced the postponement of further use of the Danube for electric utilities for a decade. Everywhere the two most sensitive issues are road construction/traffic regulation and waste/sewage installations. Hardly any of these projects passes without severe public struggle. This makes it very difficult for the political system to establish simple technical solutions.

CONCLUSIONS

In my conclusions I will concentrate on the crucial mediating variables between the political system and the environmental movement(s) and on possible institutional improvements.

On the level of **structural economic and technological priorities** I see the importance of "green parties" as indispensable actors to develop new strategic perspectives. Another instrument that should be effective on this level is "environmental assessment" (with public participation) of new projects. But "politics of impediment" will remain to be one the indispensable instruments for a long time to go. All other changes towards more "ecological" strategies will depend upon their consistency or at least co-variance with economic suitability: e.g. a change of agricultural policies, tourism, consumption patterns etc.

For policies of **risk regulation** I consider (centralized) information systems to be the crucial variable. "Modernization" of information, both within the administration and in the form of public reporting, is **the** strategic means for coordinated risk regulation - within and outside of the political/administrative system. The effects of such improvements would strengthen both sides of the process: the functioning of administration **and** the range of democratic, decentral forms of action.

Austria is now making a serious attempt at establishing a supplementary set of environmental indicators for the system of national economic accounting - this might offer a good occasion for the improvement of environmental reporting.

For politics of **space regulation and habitat protection** as well as **public infrastructure** for resource supply and waste disposal (but also for **risk control**) I see three possible strategic means.

(1) The strengthening of local "expertise" and exchange of experiences by professional networks of counselling and cooperation. For example: networks of administratively independent but publically financed environmental counsellors for communes, industry and households.

(2) The encouragement of private law local contracts between communes, civil representatives and industry (or two of the three) on infrastructure and/or risk regulation (see Japanese model, Weidner 1988)

(3) The institutionalization of other than productivity-oriented forms of public labor for the rehabilitation of natural habitats. For example: The responsibility of a school for the re-naturalization of a forest; programmes for the unemployed young to rehabilitate swamps; "adventurous tourism"-programs for improving protection against alpine catastrophes by re-forestation; public support for the cooperation of peasants to re-establish networks of natural biotopes between fields etc.

In recent years environmental concerns proceeded at a fairly quick pace into all political issues. The vehicle of the political/administrative system had civil movements working as its motor. Some of these concerns have in the meantime been transformed into technical agenda handled by the "professionals" alone, but it takes only small occasions for them to be re-politicised. The more fundamental problems still remain to be attacked, and thus the functional importance of "movemental" forms of politics will persist.

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1. One should not underestimate the "power of definition" exerted by environmental movements as to what "environmental politics" encompass. It would be interesting to trace the processes by which "ordinary" political and administrative issues get identified as environmental issues. I should guess this new definition of issues often does not originate from within the institutional system, but from outside.

Krott (1991, p.44) tried the following definition:

"Environmental problems should be equalled with conflicts between different interests, if one of these interests is directed at the preservation of some state of nature considered 'natural'." Environmental politics is directed at handling such conflicts.

2. This bears resemblance to what Prittwitz (1988) calls "strukturelle Ökologisierung"

3. Also Beck 1988 concentrates entirely on these aspects of environmental concerns.

4. A similar judgement is presented by Scharpf & Schnabel (1979) for the chances of space regulation politics in Germany.

5. I use this somewhat contemptuous American term not because I want to convey such contempt, but because I think that it describes well the minimal political communality of local environmental opposition movements (LEOMS). This does not deny the collective learning process within such movements leading to a more general criticism of various items of infrastructure (e.g. highways).

6. One of the largest state projects along this line, the construction of a 30km train-tunnel beneath the tyrolian alps (the main transit route from Germany to Italy), was originally a supposedly absurd idea of tyrolean environmentalists.

7. As Krott (1987) has shown the media's attention to forest dieback decreased after a few years while the phenomenon was still becoming more obvious and more widely accepted by all experts.

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