

Paper for the  
48th Congress of the European Regional Science Association  
Culture, Cohesion and Competitiveness: Regional Perspectives

27 – 31 August 2008, Liverpool, UK

**Sustainable Regional Development  
as a Problem of Environmental Policy Integration  
– The Case of Regional Cooperation in Germany –**

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**Abstract**

Since the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, it has been clear that economic, ecological and social development must be sustainable. This also holds true for local and regional development. However, the gap between ecological policy aims and reality, as for instance in the field of climate protection and biodiversity, is even widening. At the Cardiff Summit in 1998, an initiative was started in the European Union to narrow the gap between European environmental aims and implementation. The integration of environmental policy is called for in all areas, for example as regards the economy, energy, transport, and territorial cohesion. This is currently being discussed under the heading environmental policy integration, drawing also on national political and academic debates. The paper examines the concept of environmental policy integration and applies it to the regional level in Germany. One particularity is that, by the traditional German definition, regions are often constituted by cooperation between municipalities. After discussing the concept of environmental policy integration, the paper considers it in the local and regional context. The opportunities and limits of environmental policy integration are analysed on the basis of existing literature. The paper concludes with recommendations on further research.

**1 Introduction**

There is a significant body of literature in the field of ecological and sustainable regional development (e.g. Hahne 1984, Hesse and Lukas 1991, Schleicher-Tappeser and Rosenberger-Balz 1992 as well as Busch-Lüty, Dürr und Langer 1992; Thierstein und Walser 2000; Layard, Davoudi and Batty 2001, Lafferty and Narodslawsky 2003; Nischwitz 2007 respectively). Often the German regions, as a spatial level between states and municipalities, are seen as playing an important role in achieving ecological or sustainable development (e.g. Spehl 2005, Jäger 2007, 203f.). Nevertheless, neither the current state of regional, ecological or sustainable development nor its actor-related and institutional prerequisites have been sufficiently investigated. Only fragments of theoretical foundations are available. Here the concept of environmental policy integration (e.g., Lenschow 2002) from political science might provide a helpful approach.

This concept has been discussed and used more widely since the EU summit in Cardiff 1998 and in its normative version seeks to ensure that environmental aims are given due consideration in the formulation and implementation of all EU policies, e.g. economic, energy, transport and regional policy. Without using the term explicitly, the first German national environmental programme of 1971 called for environmental policy integration. However, there have been significant shortcomings in the concept at the EU and national levels, particularly as far as the protection of climate and biodiversity are concerned. There is a growing body of literature dealing with the concept of environmental policy integration and its functional prerequisites. There is no unitary theory but a system of terms and supposed cause and effect relationships seems to be emerging.

Against this background the paper discusses the concept of environmental policy integration, extending it, and considering its application in the regional context. The paper accordingly starts by elucidating the concept and extending it to apply to German regions (section 2). Various possibilities and limits of regional environmental policy integration are then analysed on the basis of existing literature (section 3). The paper ends with conclusions about key questions for further research (section 4).

## **2 The Concept of Environmental Policy Integration (EPI)**

Taking due account of environmental objectives in all relevant policy areas is one of the major challenges to sustainable development. A concept that has found an increasing place in the international debate on this subject is “environmental policy integration” (e.g., Buck, Kraemer and Wilkinson 1999; Lenschow 2002). It originates from European Union environmental policy. At the 1998 EU summit in Cardiff, an initiative was launched under this heading on the basis of Article 6 of the EC Treaty to lend greater real weight to environmental goals in areas like economic and agricultural policy.

### **Background and Content of EPI**

The environmental policy of the European Union and its member states can be regarded as a success when one considers the major improvements that have been achieved, for instance, in combating air and water pollution. However, much needs to be done in many fields such as protection of the climate and biodiversity. Where environmental policy has been successful, however much more may need to be done, it has interestingly enough been where environmental policy is vested in institutional entities like government departments established specifically for this purpose. Vice versa, the greatest problems occur where the pursuit of environmental goals is entrusted to entities whose prime remit is in other fields (e.g., industry, housing, energy, transport).

Against this background, Hey defines environmental policy integration “as early coordination between sector and environmental objectives, in order to find synergies between the two or to set priorities for the environment, where necessary” (Hey 2002, 127). The policy integration approach is fully in the tradition of the political and scientific debate on the ecologisation or environmental orientation of policy, and on the coordination of environmental policy with other policy areas in Germany. After all, from the very outset of modern German environmental policy in the 1971 Environmental Programme, it has always been the aim of the federal government to integrate environmental policy into other policy areas. This was particularly the case for all aspects of structural and spatial planning policy (according to Bechmann 1984, 131). The academic community has also contributed a vast literature on the issue (e.g., Müller 1986, Lintz 1996). Environmental policy integration is now less concerned with setting new environmental goals. The main problem is rather the deficient implementation of such goals (cf. e.g., Hauff 2007), that is to say, shortcomings in the realisation of policy integration (Müller 2002).

### **Three Categories of Factor**

The literature on environmental policy integration and related topics addresses many factors that influence the success of integration in the politico-administrative system. Persson (2004, 43) has identified three broad categories of closely interacting factors (similarly Müller 2002). The first is political priority setting (normative factors). Environmental policy integration presupposes that the political leadership has a clear and lasting commitment to environmental goals and accordingly carries them through. Written strategies for sustainable development can be useful to formalise and concretise political will. Political priority setting is determined very strongly by the electorate, but also by other factors, as we shall see. The basic will to pursue environmental goals by suitable means is probably the most important precondition for policy integration. However, it must also be ensured that, in the extremely complex decision-making situations operating in politico-administrative systems, environmental interests are not simply overlooked: the best possible solutions have to be found and put into effect. Even where the will behind environmental policy is feeble, improvements in this regard can favour goal attainment (Müller 2002, 63). The following two factors are very important in this regard.

The second category of factor is concerned with the organisational structures of administration (organisational factors). The problematique of policy fragmentation has been pointed out for a considerable time now, arising, for example from the sectoral orientation of ministries and departments (e.g., Müller 1986). Such entities have certain responsibilities, objectives, and focal areas that are often incompatible with early coordination and general priority setting. The solutions proposed and applied include redefining organisational entities or interdepartmental working groups and committees. The third and final category covers procedural organisation and the organisation of decision-making processes (procedural factors). The following questions need to be raised: Who is involved in decision-making, when and how? What information feeds into the decision-making process and when? Important are, for example, the distribution of decision-making competence, public participation, environmental impact assessment, and decision making support systems (data availability and processing).

### **Supplementing EPI: the Environmental Policy Capacity Approach**

Considering the origins of the environmental policy integration concept, it is no wonder that political leadership and administration play a prominent role. Generally, however, and particularly in environmental policy, there is growing realisation that – not least with the European Union in mind – the role of government, of the State has changed. Under the heading of governance, authors stress the growing role of interaction between a multiplicity of governmental and non-governmental actors across several politico-administrative levels in the framework of various formal and informal modes of control (e.g., Pütz 2007, Jänicke 2004, Adshead and Quinn 1998). As yet, this is scarcely reflected in the literature on environmental policy integration (cf. Nilsson 2005, 208f.).

This being the case, it is advisable to expand the EPI approach explicitly to include (additional) elements of Jänicke's (2002) broader concept of "capacity for environmental policy," which he developed for the purposes of comparing policy in different countries. In effect, it describes the ability of a society to identify and solve environmental problems. The capacities for the environment are constituted by the strength, competence and configuration of organised governmental and non-governmental proponents of environmental protection as well as the cognitive-informational, political-institutional and economic-technological framework conditions. The utilisation of existing capacity depends on the strategy, will and skill of proponents as well as their situative opportunities. This has to be related to the structure of the environmental problem: its urgency as well as the power, resources and options of the target group (p. 7).

### **3 Environmental Policy Integration in Regional Development**

The regional level, sandwiched between the subnational levels entrenched in the German constitution – the constituent states of the federation and local authorities – differ greatly in size and forms of control. Governance, or regional governance, is a particularly apt concept in this context (e.g., Pütz 2007 and Fürst 2003). Disregarding, for example, regional planning associations, regional action is constituted by non-mandatory, intermunicipal cooperation. In the framework of vested powers, basically all aspects relevant to development can be addressed. Many policy areas play a role at the regional level, including economic, energy, transport, and housing policy, not to mention environmental policy – although it is more appropriate to speak of areas of action rather than policy areas. Environmental policy integration means that everything that the regions undertake in the various areas of action must take account of environmental goals at an early stage, with synergistic intention, and, where necessary, in priority. As far as content is concerned, the outcomes can include regional material cycling, regional ecological industrial estates, regional energy supply, improved regional public transport, or regional initiatives for ecological building and housing.

#### **Environmental Policy Control at the Regional Level**

Intermunicipal cooperation can be formally organised, for instance by setting up special purpose associations. This paper focuses rather on informal arrangements for cooperation, which have attracted particular attention over the past fifteen years. An interesting point of departure is to consider how such forms of cooperation are organised structurally. According to Diller (2002, 90ff.) the following four elements are typically involved (similarly Schmidt et al. 2002, alternatively: Molitor 1998):

(1) A strategic body, such as a steering group, that brings together the main people in charge at the political and administrative levels. In such bodies mayors, district chief executives, and/or presidents of chambers make strategic policy decisions. The steering group corresponds to political leadership. (2) The concrete, ongoing substantive work is entrusted to working and project groups. They are composed of experts from the participating local authorities and institutions. How many groups there are depends on the number of areas of action involved. (3) Broad, strategic decisions on cooperation are made at central gatherings like regional conferences and association meetings. This is where the relevant actors are broadly integrated. (4) The final element is operational control. External moderators, offices, or secretariats relieve the leadership and working levels of organisational and routine tasks.

Cooperation at the regional level thus assumes a specific institutional form which develops a dynamic of its own, owing, for example to the particular subject matter handled, the configuration of personalities, regional press, and other regional actors. This is a very good starting point for examining environmental policy integration in terms of the three categories of factor: What priorities does the leadership set? How is competence distributed among the working groups? How are decision-making processes organised? But in pursuing the regional governance approach, the analysis must go much farther.

For the success of regional cooperation in taking environmental goals into account is very strongly influenced by the situation in the individual municipality. Actors from local authorities are representatives of internally differentiated organisations, which have to some extent put them under clear orders. This makes it imperative to examine environmental policy integration at the local authority level, too. As at the regional level, environmental associations and organisations, as well as employers' organisations, regional planning authorities, and other actors can bring their influence to bear in various ways. Attention needs to be paid to regulatory settings, such as the influence of rules on formal planning (e.g., Environmental Impact Assessment, Strategic Environmental assessment), ideas and knowledge about alternative courses of action, other actor contacts at the regional level (e.g., through party organisa-

tions), the role of state governments, the economic situation of the region, and general awareness of environmental issues.

According to Jänicke (2002), the degree of environmental orientation in politics is determined in the general context by the debate between proponents and opponents of environmental action. This debate can take various forms, for example confrontational or constructive. If, with Jänicke (2004, 300 f.) we understand political control in the context of environmental problem-solving as environmental governance, such control at the regional level is best termed regional environmental governance.

### **The Problems of Environmental Policy Integration at the Regional Level**

Because of its non-mandatory nature, inter-municipal and regional cooperation depends ultimately on whether the potential partners consider the utility of cooperation to be greater as a whole than the costs of cooperating (cf. Fürst, Ritter 1993, 60). From an empirical point of view, this is by no means always the case. Since the 1990s, studies have shown that the incentives for regional cooperation tend to be weak. Diller (2002, 41, 107), for example, notes that such cooperation generally has to be initiated at a higher level or at least stimulated or supported from above. Striking examples in Germany are the federal competitions InnoRegio and Regions of the Future (Regionen der Zukunft).

Little research has hitherto been done on the actual role that the environment plays and could play in regional cooperation projects and for what reason. The literature provides some pointers. In general, an environmental orientation can be achieved if the actors involved feel that the benefits from maintaining or improving environmental quality are great enough and/or the costs of such a joint orientation are low enough. This picture is in keeping with Fürst's (2001) thoughts about the "difficulties of making regional self-governance sustainable." Network-like cooperation models are "inefficient if the topics are conflictual (e.g., the restrictive use of resources), if highly reliable inputs are demanded of participants, and if the short-term cost-benefit analysis of actor participation is markedly less favourable than the long-term prospects" (p. 94). Fürst also stresses that cooperation partners tend to externalise elements of problem-solving costs to those outside the network.

Regional cooperation projects promoting environmental interests are accordingly often to be found in connection with regional parks, national parks, or other areas where, for example, local recreation or tourism play a major role. With reference to the Regions of the Future competition, Dosch (2001, 11) notes on the subject of sustainable land-use: "Strong and lasting engagement is to be found firstly in regions under 'great strain,' secondly in projects that contribute to the image of the region and thus to location marketing." Cooperative projects that integrate an ecological element into, for instance, regional business promotion or energy supply, are comparatively rare. An empirical study by Klemme (2002) confirms this with respect to the suitability of regional cooperation for sustainable development, which by definition adopts an appropriate environmental stance. For example, one interviewee told her that: "you can count yourself lucky if local authorities cooperate at all." Another stressed that science sees the status of sustainability in practice too positively. It was claimed that there was too little incentive for sustainability. Regarding policy integration, Klemme points out that Agenda processes often address "playing fields" that do not coincide with the core of local government policy areas (similarly Brand and Fürst 2002, 33; Peitzker 2003, 240). When a choice has to be made in such fields, economic strength and jobs are given higher priority. People with sustainability at heart are often in the weaker position in disputes about protecting the environment.

### **Improving the Conditions for EPI at the Regional Level**

Overall, this analysis does not suggest that regions are predestined engines of ecological or sustainable development. The solution of global environmental problems and even regional

environmental problems at the regional level is not to be taken as a matter of course. However, possibilities are already being exploited for shifting barriers and increasing the capacity for solving environmental problems at the regional level. They include development promotion programmes that couple funding with target-based regional cooperation. The influence of environmental organisations has been increased by introduction of the right to take legal action. The goal of sustainability has been entrenched in the Federal Spatial Planning Act. Environmental impact assessment for projects and plans has been introduced. Finally, chapter 28 of the Agenda 21 gives local authorities a clear role in attaining sustainability goals and calls on them to cooperate (BMU 1992).

Over and above this, the following measures have been proposed. One of the simplest options is to improve the dissemination of knowledge about good practices in ecological regional development. A similar effect could be achieved by more intensive use of political decision making support systems (for instance, GIS visualisation). The concept of regional ecological competitiveness (Clement 2000) can be no more than mentioned at this point. It is likely to increase the attention of regional actors for regional environmental quality. Also conceivable is better networking among environment-related actors and institutions in the context of a regional environmental conference (Lintz 1996, 296). Further proposals include improving public participation – or institutionalising regions more strongly in order to reduce the problems of cooperation (e.g., Hahne 1984, Spehl 2005). No comprehensive analysis of all possible suggestions is available to date.

### **Particular Opportunities for EPI at the Regional Level**

As indicated, the preconditions for better environmental policy integration at the regional level can bear improvement. This can be achieved on the basis of appropriate studies. However, efforts to improve the “control mechanics” of political opinion and will formation as well as policy making and implementation are now coming up against their limits. The success so far attained in environmental policy integration and the environmental situation has, as we have seen, not eliminated major challenges in such fields as climate protection and nature conservation. Jänicke (2004) writes of “persistent” environmental problems difficult to politicise and not easy to deal with technically. Thus it is much easier for politicians to reduce sulphur emissions from the relatively few power stations than to persuade a large number of people to produce less carbon dioxide from vehicle emissions. Governments from the European to the local level risk being voted out of office if they overburden the public.

To a great extent the bottleneck is due to political priorities, which are ultimately determined by societal factors. Much more strongly than in the past, improvements in the “control mechanics” of environmental policy integration must therefore be urgently supplemented by measures apt to promote the development of values and preferences compatible with sustainability. As Troge (UBA 2002, III), director of the Federal Environmental Agency, notes, sustainable development, to which the Federal Republic of Germany is committed, cannot be achieved without a far-reaching change in people’s attitudes and behaviour. Everything suggests that a fundamental discussion about values and lifestyles is needed if society is to avoid grave ecological and economic convulsions in the decades to come. Such a discussion about the integration of environmental goals into a purposeful “educational, values, and awareness policy” could be encouraged, particularly at the regional or local level.

### **Regional Value and Awareness Formation**

The question to be asked is what goals regional development ought to pursue. Conceptually, the traditionally strong objectives of economic and income growth face alternative goals. The title of Richard Layard’s (2005) recent book, at least in the German translation, formulates one such goal: a “happy society.” The study by the LSE economist draws on empirical observations that, although people in industrial societies have experienced a considerable in-

crease in real income over the past 50 years, they have scarcely become happier. Among the factors that contribute to personal happiness, Layard counts both financial situation and family relations, work satisfaction, as well as community and friends. While the financial situation has generally improved, family problems (e.g., divorce) and achievement pressure in the world of work have increased; increasing television consumption has impoverished social life. In this situation, Layard pleads for a more family-friendly working world, the rejection of too strongly performance-related pay, a reduction of constantly growing needs by restricting advertising, and better moral education. It remains to be seen what these thoughts could mean for regional development.

The Agenda 21 repeatedly stresses the need to raise awareness for sustainable development, for instance through dialogue and consultation. At the regional and local levels, the political process must be increasingly seen from a new angle: as an open learning process that enables many people to take part. Interestingly, this is pointed out not only in the literature on sustainable development (e.g., Jäger 2007, 206) but also in publications on strategic planning in general (e.g., Healey 1997, 5). Since big steps towards change are hard to take in democracies (cf. Zohlnhöfer 1986, 58), awareness formation can provide impetus for small changes that do not really “hurt” but which have a far-reaching effect in that they, in turn, enable small changes bringing further small advances.

With regard to the role of local authorities, chapter 28 of the Agenda 21 emphasises that: “As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development.” At least from a theoretical point of view, the regional and local levels enjoy the advantage over other territorial levels of spatial proximity to the actors, which can be of great importance for learning processes and the formation of environmental awareness (cf. e.g., Thierstein und Walser 2000, S. 78; Hahne 2002; Connelly and Smith 2003, Spehl 2005; Fürst 2007; Nischwitz 2007; see also Forschungsverbund “Blockierter Wandel” 2007). This is where civic society and civic engagement have their roots, which have repeatedly been sources of decisive progress in environmental protection (cf. also Ganser 2007). A now well substantiated example of an integrative approach in this field is the Ecoprofit programme (Lintz and Nobis 2008). It is organised by local authorities or regions and makes intensive use of the advantages of spatial proximity to the relevant actors. Ecoprofit was developed in the early 1990s by the city of Graz and takes a group of enterprises through a year-long programme of workshops and consulting (Lintz and Nobis 2007, Martinuzzi, Huchler and Obermayr (2000), Kleinewefers 1997). Ecoprofit thus makes a direct contribution to environmental protection and to enhancing the competitiveness of the firms involved. Beyond the project, the participating firms retain a greater awareness of environmental and resource protection needs gained in the exchanges of experience and joint learning processes; local and regional communication structures are reinforced. In the field of regional values and awareness formation, too, many questions remain to be answered, for example, about possible measures and the favourable territory sizes for the efficient implementation of these measures.

## **4 Conclusion**

With a view to improving the theoretical grounding of the actor and institution-related aspect of ecological regional development, this paper has discussed the concept of environmental policy integration, expanding it to include elements of Jänicke’s environmental policy capacity approach, outlining its application at the regional level in Germany. The subject of study has been regional environmental control, which in conjunction with the governance concept is to be understood as regional environmental governance.

We have seen that the broader concept of environmental policy integration offers a suitable approach for more intensive and comprehensive investigation of the options for and limits to attaining environmental objectives in the context of regional sustainability policy. In Germany it is difficult to take due account of environmental objectives in regional cooperation. Nevertheless, there are ways to enhance environmental policy leverage, especially in the fields of education, values, and awareness.

This makes environmental policy integration a key concept in ecological spatial and regional development. At the same time, the analytical approach, which requires refinement, can provide the basis for a far-reaching and interesting scientific research programme. The following questions need to be answered:

- What factors influence ecological orientations in regional governance systems and how?
- What are the major hindrances to an ecological orientation in regional governance systems?
- How can such hindrances be eliminated in an overall concept for improving ecological orientations?
- What role should regions play in the multi-level environmental policy system?

Differentiation in terms of environmental fields like noise control, landscape conservation, and climate protection must be kept in mind. Control problems differ from field to field as do the solutions required. Also to be taken into account is differentiation in terms of the type of area involved, where different economic and environmental situations prevail and different actor constellations are to be found. Similar research requirements have to some extent been formulated in other contexts (Spehl 2000, 123 ff.; Brand and Fürst 2002, 91 ff.). At any rate there is an urgent need for substantial research. In many more recent fields it is still in its infancy.

Finally, another advantage of the environmental policy integration approach should be mentioned. It is closely associated with a basic issue of spatial planning and development. In this domain, spatial goals need to be integrated into all spatially relevant policies. There is hence potential for considering environmental and spatial issues within the common investigative framework of policy integration. It is therefore no wonder that the term "territorial policy integration" has recently appeared at the European level (Schout and Jordan 2007).

## **Acknowledgements**

The author thanks Markus Leibenath and Peter Wirth of the Leibniz Institute of Ecological and Regional Development for constructive comments on an earlier draft. Thanks go also to Rhodes Barrett for translating the German manuscript into English.

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