

Knowing Governance and the act of politics



institutions actors in industry, and our society



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Economists, lawyers, sociologists and political scientists at the UFZ analyse how decisions on the use of landscapes are made and how these decisions can be improved. The first step here is to identify as well as understand the actors who decide how landscapes are used. In a second step scientists examine the negotiation and decision-making process between those actors. This process is often referred to as governance. In a third step researchers develop policy advice by creating adequate political instruments such as regulations, taxes or tradable permits. In a fourth step they identify who is to be informed in order to make sure that relevant knowledge and expertise are fed into the decision-making processes.

SPEAKER ON THE RESEARCH TOPIC "GOVERNANCE, INSTITUTIONS AND POLICY FOR SUSTAINABILITY":
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Heidi Wittmer and Doris Böhme

Who actually decides how our environment is used?



Have you ever tried to find out who is responsible for a particular decision in a certain public authority or agency? Have you ever felt that you've been sent to Timbuktu and wasted a lot of time in the process? Now suppose scientists have made new discoveries as to how to make more sustainable use of landscapes in order to preserve the biological diversity, sustain water resources, reduce the area of sealed land, ensure sustainable urban development, thereby making sure that our children and grandchildren will live in an environment as favourable as we do today. How can we get knowledge to where it is needed when decisions on the use of our environment are made? Who is actually to be informed or advised in order to include this knowledge in the social decision-making processes? The question as to what kind of information is needed and who takes relevant decisions is far from trivial.

A large number of social actors from the state, private industry and civil society – for instance, municipalities, regional and traffic planners, water supply companies, private households, farmers and foresters, citizen's action groups or environmental associations – decide how environmental resources are used and landscapes shaped. It is a fallacy to believe that decisions are primarily taken by state authorities and that other actors in society simply accept their stipulations. Over the last ten years the limitations of such an understanding have become manifest. Nowadays, an increasing number of decisions are the result of negotiations among the aforementioned players. These decision-making processes, subsumed and discussed under the term “governance”, have forced scientists and other circles involved to adopt

new approaches. In order to know how the environment is used by whom and why, it is necessary for them to analyse the respective decision-making processes, identify the actors involved and establish how they interact within different social and political settings. It is on the basis of such findings that political measures and advice for a more sustainable use of environmental resources can be developed.

Networking is the be-all and end-all of environmental research

An individual person is likely to be guided by rules or institutions, i.e. by laws and regulations when deciding how to use the environment, but other political instruments, such as tax benefits for homeowners or the mileage allowance, also play a role. Laws and political instruments as well as individual or collective decisions

are the subject of investigation in various social sciences. At the UFZ these include legal, political and planning sciences, sociology and economics. Social scientists involved in the research field of “Governance and Institutions” are working on ways as to how individual rules and instruments should be adapted as well as on improving the co-ordination between different areas of decision-making.

However, it is essential to take into consideration natural scientific knowledge in this process, thereby making it possible to implement more effective instruments and rules to overcome environmental problems. Such knowledge includes, for example, ecological know-how for the protection of species, hydrological models for the management of water bodies or findings regarding the diffusion and effects of pollutants, facilitating the clean-up of polluted areas. ↗

This interface clearly illustrates the interdependence of the social and natural sciences. At the UFZ the conditions for such an exchange between the different disciplines are excellent as their facilities are all located under one roof.

Research areas ranging from conflict analysis to compensation payments

As part of the research in the field of biodiversity at the UFZ social scientists are investigating which instruments and coordination mechanisms in environmental protection are already in place and how such existing structures can be improved. For example, what are the necessary characteristics of a compensation system for the municipalities and land users that bear the costs of maintaining nature reserves where the beneficial effects can

second is to identify the questions political bodies and environmental protection authorities want scientists to answer. The third objective is to inform the public why there is a need to protect biodiversity and how this can be achieved.

Managing rivers or entire river basins is not a simple task. Whereas to manage relatively small river basins such as the River Weiße Elster (White Elster) flowing through Leipzig is already difficult enough, the task of managing large trans-boundary river basins such as the Elbe or the Jordan is all the more challenging. How is it possible to use the water resources of such rivers without putting an excessive strain on them? More often than not the various users have conflicting interests. The scientists analyse these conflicts, for example between upstream and down-



Every day the overall settlement and traffic area in Germany increases by approximately 120 hectares, which is equivalent to the area of about 120 football fields. It is the objective of the Federal Government to reduce the daily land consumption to 30 hectares. Scientists are there-



be felt far beyond their boundaries? The researchers are also engaged in building up a “national bio-platform” which will pursue three main objectives. The first is to produce a compilation of the current scientific output in Germany concerning nature protection and biodiversity. The

stream riparians. By doing so, they gain a detailed understanding, enabling scientists to propose ways of solving them. They further investigate the influence of political instruments such as water rights or water prices on the way people use water resources.

fore concentrating on identifying the most effective and efficient measures to achieve this goal. Should they include tradable permits for the dedication of building land, co-operation solutions, taxation or an amendment of the existing planning law? (See article on p. 16)



While in some regions we are faced with the phenomenon of mega-cities, in other regions, such as in East Germany - but also in other old industrial centres - we experience shrinking cities. How can a sustainable urban development be achieved despite a population decrease? Scientists examine what actors are involved in what way in urban redevelopment,

what conflict structures exist and how policies can be adapted to these new problems.

Scientists are also analysing how participative decision-making processes should function in order to increase the involvement of both stakeholders and the general public in order to improve environmental decisions.

Research is vital

There is an increased demand to take scientific findings into account in political decision-making processes, in particular where environmental issues are concerned. In order to facilitate the dialogue between science and policy governance research should form an integral part of every branch of environmental research, no matter whether such research is concerned with biodiversity, river basin management, land sealing or urban redevelopment. However, this growing interest on the part of political bodies also means that there will be an increased need for research to address the requirements of society. ■

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International water conflicts

There are 263 international river basins worldwide. These important water resources are becoming more and more the focus of public as well as scientific debates. The reason for this interest is that they are increasingly exploited. As they stretch across political borders, increased competition for scarce resources may thus become a cause for international conflict. The situation is particularly critical in arid areas such as the Middle East. However, regulations surrounding the utilisation of international waters often lead to disputes in water-rich areas as well. Do agreements and institutional arrangements actually contribute to international co-operation in the management of transboundary water resources? What are the interests and incentives of the respective riparian countries and water users? What are the characteristics of international water agreements already in force, and do they work as intended? Economists at the UFZ are pursuing these questions among many others. Their analysis of the problem is, however, not just limited to an economic and political analysis, but they also take account of natural scientific findings as

well as the legal framework of international law in their investigations. The objective is to provide a scientific basis on which to provide advice to the relevant authorities in the drafting of such agreements.

In order to reveal typical patterns of international water conflicts, the scientists have analysed potential transboundary effects of different water uses. For example, water extraction from and sewage discharges into rivers or the over-fertilization of soils all have a negative effect. The effects of infrastructural measures such as water treatment or flood control measures, on the other hand, are positive. The decisive question, however, is for whom?

Upstream beats downstream?

Whereas the downstream riparians may be pleased with increased wastewater purification, less fertilizer usage and better flood protection by the upstream riparians, they will be less happy with the discharge of toxic agents. But why should upstream riparians be motivated to reduce water extraction or the discharge of pollutants any more than is absolutely required? Let us look at it from an econo-

omic perspective: any reduction of water usage by the upstream riparian also involves costs. In cases where the costs of implementing measures to reduce water usage are lower than the benefits gained by the downstream riparian, opportunities for negotiations are created, as the downstream riparian might contribute financially towards the implementation of such measures. In the case of building sewage works, contributions might be less feasible, since according to the polluter-pays-principle, the upstream riparian is solely responsible for the treatment of sewage water he produces in order to eliminate or prevent any negative effects. In the case of flood prevention installations, financial contributions by the downstream riparian are more realistic, at least where they enable him to gain influence over the planning procedures of the upstream riparian. As a result, both parties would benefit.

Water law and international law

The economic perspective mentioned above illustrates that as long as there is a consensus between the parties as to their respective water rights, there is potential for co-operation, even in cases where they deal with the negative effects of water



Water usage in Santiago de Chile



utilisation. Economic research is, however, unable to determine how these water rights agreements should look like. In that regard, international law prescribes the principle of equitable and reasonable utilisation. Nevertheless, the problem is that there is no international authority which specifically defines the water rights of states, meaning that riparian states have to negotiate water rights in the first place. Although international law provides some criteria, it is at the discretion of the negotiating states whether or not to consider them in their negotiations.

USEFUL INFORMATION

Water law is part of public law, regulating the use of water bodies. Use in this context refers to the arrangement of water bodies, water extraction for drinking water supply, irrigation in agriculture, industrial processes or for the purpose of cooling industrial water. The function of water law is to protect clean water – rivers, lakes, groundwater – from harmful interventions or pollution and to clean up polluted waters. A further function of this law is to protect people and their property from floods.

German water law is divided into water management law and waterway law. In the case of the water management law, the competence of the Federal Government is limited to framework legislation, since actual legislative power lies with the federal states. The German water law has been given new impetus by the **European Water Framework Directive (WFD)** which came into force in 2000, providing a new legal framework for the use and management of rivers. The foremost environmental objective is to achieve a “good qualitative status” in all European waters by 2015.

International law defines principles for the use of international water resources between states. In this respect, the UN Convention on the Law of the Non-Navigational Uses of International Watercourses was signed in 1997.

Scientific surveys conducted so far have revealed that treaties regulating international water usage have been concluded in almost half of the 263 transboundary river basins. Moreover, countries have set up specific commissions in about one quarter of these basins. It is open to debate whether these findings suggest that the glass is half full or half empty. ■

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Actors and Conflicts in Urban Redevelopment

Urban shrinkage, a term which was almost unknown a few years ago, has emerged as one of the most topical themes in sustainable urban development. The continuing increase in unoccupied buildings is not just restricted to East Germany, but also affects a growing number of other areas in Europe and North America, like the Ruhr district, North of England and the Lorraine region. How can the problem of unoccupied housing best be resolved? What parts of a city will continue to be used in years to come? Where should new green areas

on the one hand, urban shrinkage, on the other, presents an opportunity to restructure certain residential areas, thereby

The number of inhabitants living in Leipzig Grünau has shrunk from 90,000 to a mere 40,000. As many as 3,500 flats have been torn down in the last few years.

creating shorter commuting distances, more green areas and generally better living environments. The Federal Government and the states have developed a programme named “Stadtumbau Ost” (Urban Redevelopment East). The objective of the programme is to provide shrinking cities with the means to cope with fewer inhabitants.

Whether more space with fewer buildings will be created as a result of the programme, or whether the wrecking ball will play a predominant role does, however, not just hinge on the good or bad ideas of city planners. Rather, a number of actors are involved in urban redevelopment, all with particular interests and goals. Whether sustainability objectives will actually be implemented, rather than just defined is not just contingent on clever concepts, but predominantly on how different interests can be reconciled.

“Stadtumbau Ost” lends itself well to an

almost paradigmatic study of such governance issues. As part of the programme, plans for a new type of city are being developed in more than 260 East German municipalities. Such a large-scale venture naturally involves a wide range of negotiation processes in which housing companies, banks and municipal authorities negotiate the redevelopment of entire residential areas.

Demolition or redevelopment?

In order to gain a better understanding of such negotiations, social scientists at the UFZ have for the first time conducted a detailed study of the political aspects of urban redevelopment based on the example of Leipzig’s district of Grünau. The study formed part of a larger project named “Actor constellations and conflict structures in urban redevelopment”. For two years scientists observed the redevelopment of Grünau, interviewed local govern-



ideally be located? What adjustments need to be made to commuter traffic control measures or the water supply? What is to happen with unused plots of land? And who sits at the table when plans and decisions are made regarding future urban development? While unoccupied housing poses a number of problems





“Urban redevelopment” is almost exclusively conducted in the form of demolishing unoccupied buildings, whereas no upgrading measures are taken.

ment employees, bankers and housing companies, analysed documents and took part in meetings of the decision-making bodies.

They discovered a considerable number of management problems. The result is that, so far, urban redevelopment is not as sustainable as it could be. Why is that? Sustainability in urban redevelopment is often talked about. In practice, however, there is little or no operationalisation of sustainability objectives. In order to retain as much flexibility as possible in the negotiation rounds, public as well as private actors refrain almost entirely from incorporating their declared willingness to make contributions to a “sustainable urban redevelopment” into concrete plans.

A further problem identified by the scientists is that a large number of important actors have so far not been involved in the planning process. Operators of infrastructure, private landlords as well as residents

are not included in negotiations. As a consequence, their interests are also left out. The planning is incomplete and mainly limited to tackling problems of vacancy, that do harm to the big housing companies. Although new open spaces and green areas may be haphazardly created in this manner, they do not form part of the actual plans for green areas. Their design is thus subject to the imperative of low maintenance costs.

In addition, the demolition of unoccupied buildings is almost exclusively conducted under the label of “urban redevelopment”, whereas no upgrading measures are taken. Grant programmes from the Federal Government and the states for urban redevelopment largely contribute to this negative mechanism, as they have been conceived in such a way that mainly the demolition of buildings is supported, while very few means are left for their conversion or renovation. A number of ambitious ideas

by Grünau’s cooperatives were quickly put back in the drawer for financial reasons.

Money alone will not do the job

Thus, as a result of financial pressures, little is left of the original objective of achieving sustainability. If urban redevelopment is to involve more than just tackling economic difficulties of housing companies and actually result in “sustainable cities” with more green areas, more quality of life, shorter commuting distances and less pollutants, a drastic change of course will be required. Sustainability objectives need to be defined in clear terms, the network of those involved in urban redevelopment expanded beyond housing companies and administrative bodies and the grant programmes revised. ■

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