

## **THE COMMONS IN TRANSITION**

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### **ABSTRACT**

The paper analyses the institutional dynamics surrounding common-pool resources in postsocialist Central and Eastern Europe. It is conceived in close conjunction with the case studies reported in the four preceding papers in this series. The purpose of this paper is to frame the individual case inquiries, compare the findings from the four plus two additional case studies, and relate those to broader agrarian and environmental changes in Central and Eastern Europe.

The comparative assessment suggests that resource governance has shifted from the previously dominant legal and administrative state hierarchies towards markets. In addition, state power has moved from central governments towards local authorities. The waning and decentralisation of state power has caused the emergence of significant gaps between property legislation and rights-in-practice, which have been particularly stark in weak states. The discrepancy between legal texts and rights-in-practice leads to the exclusion of public and collective interests in favour of private interests in CPR management. It finds its environmental expression in the declining use of water control systems, widespread destruction of water infrastructure, and unfettered conversion of agricultural land for urban sprawl. Thus, the findings attest to the central role of distributive issues in postsocialist privatisation and suggest an additional dimension of distributive conflict: different rights and obligations associated with resources. They also suggest the need for postsocialist governments to be actively involved in the management of common-pool resources for the protection of public and collective interests.

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## 1 INTRODUCTION

Agricultural policy has undergone radical changes in Central and Eastern Europe over the past decade and a half (Swinnen 1997, Swinnen et al. 1997). Privatisation programs have shifted control over production from state and collective units to private entities. Decollectivization policy has discriminated against the previously dominant large-scale production units in favour of small-scale farming. Decentralisation has sought to relocate government power from central to local authorities. Marketization, finally, has substituted market mechanisms for allocation by administrative decisions. Thus, agricultural policy has sought to change the institutional framework regulating agricultural production. Dramatic changes in outputs, inputs, and cropping structures attest to the impacts of policy reforms on agricultural production across the region (Lerman 2000, Tangermann and Banse 2000).

This paper explores the environmental effects of agrarian transformations in Central and Eastern Europe, with a particular focus on the institutional dynamics surrounding the use of common-pool resources. The paper is conceived to provide a comparative assessment of agrarian and environmental change in the region, to be read in close conjunction with the case studies reported in the four preceding papers of this discussion paper series (Penov 2002, Ratering and Krumalova 2002, Schleyer 2002, Wasilewski and Krukowski 2002). The case studies examine the management of water and landscape in four specific contexts of postsocialist Central and Eastern Europe. The purpose of this paper is to frame the individual inquiries, compare the findings from the four plus two additional case studies, and relate the findings to broader agrarian and environmental changes in Central and Eastern Europe.

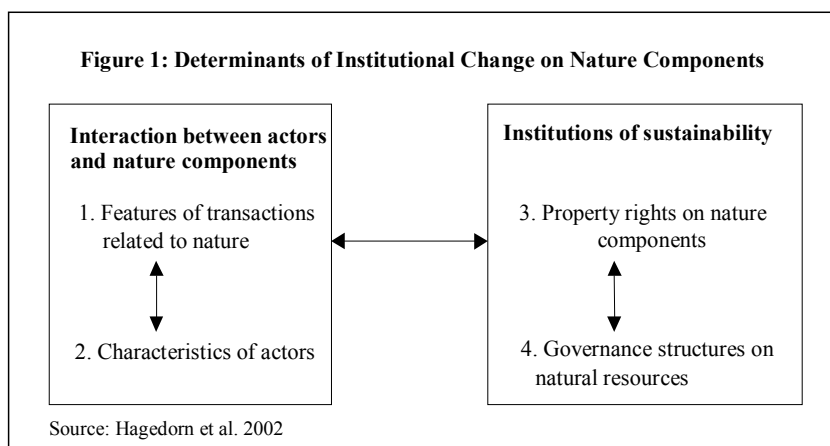
The paper concludes that agrarian transformations have brought a reconfiguration of 'rights-in-practice' on common-pool resources. Powerful rural actors have extended their control over common-pool resources beyond the level foreseen in property reforms. They have also refused to assume responsibility for duties associated with resource rights. Property on common-pool resources thus resembles the 'recombinant' property observed in Hungarian industry, i.e., property shaped by enterprise managers' attempts to privatise assets and reject responsibility for associated debts (Stark 1996). Underlying this reconfiguration of property relations are broader changes in governance. State power has weakened significantly as markets and non-state actors have expanded their influence. In addition, state power has shifted from central to local levels, beyond the degrees desired in decentralisation policy. Thus, common-pool resources in weak states of postsocialist Central and Eastern Europe have been subject to an enclosure-type movement, as powerful private actors seized control over valuable resources to the detriment of collective and public interests.

The first part of this paper introduces the theoretical underpinnings and environmental concerns motivating the research. It begins presenting the joint theoretical framework on property and governance guiding the case studies and subsequently reviews broader agrarian and environmental changes in Central and Eastern Europe. The comparative assessment of the six case studies is the core of the second part of the paper. After a brief overview of the case studies, analysis focuses on changes in property legislation, resource governance, and property rights-in-practice to understand the institutional factors underlying observed environmental changes. The paper concludes with a summary of major findings and policy implications for sustainable management of common-pool resources in Central and Eastern Europe.

## 2 PROPERTY AND GOVERNANCE

Rising awareness of natural resource degradation and environmental change has caused significant interest in the social dynamics underlying resource use over the past three decades. Researchers of various disciplinary backgrounds have documented and analysed institutions regulating resource management (cf. McCay and Acheson 1987, Wade 1988, Ostrom 1990, Agrawal 2001). Common-pool resources have received special attention, as their nature poses particular challenges to management: it is difficult or costly to exclude potential beneficiaries from the benefits originating from the resource (Ostrom 1990, Bromley 1992). As a result, the interests of resource users do typically not overlap with collective and public interests in the resource, a situation typical for many resource use problems.

Regularities in the findings of numerous case studies and behavioural experiments suggest systematic linkages between the characteristics of involved resource transactions and actors, on the one hand, and resource institutions, on the other (Wade 1988, Ostrom 1990, Ostrom et al. 1994, Baland and Platteau 1996, Agrawal 2001). Hagedorn et al. (2002) conceptualise the linkages between actors, transactions, and institutions as depicted in Figure 1.



- **Features of transactions related to nature:** Biophysical properties of natural resources and available technologies condition natural resource transactions in ways that put them apart from every-day transactions. As for common-pool resources, they differ from other transactions by the non-excludability of potential beneficiaries from resource benefits.
- **Characteristics of actors:** Actors involved in transactions have different capacities and interests to claim rights on natural resources. Also, they differ by their degree of political organisation and position in power relations.
- **Property rights on nature components:** Property rights determine the distribution of benefit and cost streams originating from a natural resource. Property relations are best understood as bundles of rights and duties, as different entities may enjoy different rights and obligations on different components of a resource.

- Governance structures on natural resources: Governance structures determine how transactions happen. Transactions may take place on markets, in hierarchies, through horizontal non-market forms of co-ordination, and in hybrid forms. Governance also structures related aspects of resource transactions, primarily knowledge dissemination, monitoring, conflict resolution, enforcement, and innovation.

Observed regularities in management have motivated recommendations for sustainable resource management. Among others, Elinor Ostrom and her colleagues attribute high potential to common property regimes and local self-organisation for the management of common-pool resources (Ostrom 1990, Ostrom et al. 1994, Ostrom 1999). They call for the devolution of resource management to local collectives. They cite numerous cases of sustainable common-pool resource management by local communities as evidence. Yet most of these cases stem from remote villages in developing countries. It has remained an open question how relevant the findings and recommendations are for common-pool resources in other contexts, such as local common-pool resources in industrialised countries or those at national and international levels. This paper wants to help answer the question by examining the institutional dynamics surrounding common-pool resources in postsocialist Central and Eastern Europe.

### **3 AGRARIAN AND ENVIRONMENTAL CHANGE IN CENTRAL AND EASTERN EUROPE**

Rural areas in postsocialist Central and Eastern Europe have experience of radical changes in agrarian institutions. Privatisation policy has been a key force driving agrarian transformations (Swinnen 1997, Szelenyi 1998, Turnock 1998). By way of restitution or distribution, Central and Eastern European governments have transferred ownership of land, natural resources, and other assets from state and collective entities to private actors. By the end of the 1990s, ownership patterns and farm structures demonstrated drastic changes (Swinnen et al. 1997, Lerman 2000, Tangermann and Banse 2000, Lenormand 2001). The shares of agricultural land under state and collective ownership had decreased across CEE countries, increasing the land held in private ownership. Yet despite its rapid pace, privatisation has been far from harmonic. Distributive conflicts have shaped the redefinition of property relations, at the level of policy choice and local implementation (Rabinowicz and Swinnen 1997, Swinnen and Mathijs 1997, Szelenyi 1998). Historical land owners, agricultural managers, new private entrepreneurs, reform-minded politicians, and other groups have negotiated property reforms at national and local levels.

Postsocialist states have undergone equally radical transformations. They have not only withdrawn from active roles in production and exchange, but decentralisation programs have shifted state power from central to local levels (Nunberg 1999). Decentralisation programs have empowered local governments to expand their role in decision-making, giving them authority over fields that had previously been under central authority. They have endowed local governments with new fiscal authorities in the generation and allocation of funds. The programs have also strengthened the democratic legitimisation and control of local governments by introducing direct election of local representatives.

As privatisation and decentralisation programs transformed agrarian relations, rural property relations have been highly diverse. First, contemporary agrarian structures include farming land owners, land owners with additional leased land, partnerships characterised by joint ownership and operation, various types of co-operatives and private

companies working land leased from hundreds of land owners, and state farms (Swinnen and Mathijs 1997, Mathijs and Swinnen 1998, Lerman 2000). Agrarian structures display large differences between countries, as influenced by pre-reform farm structures, land reforms, privatisation policy, and broader agricultural policy. Second, local property relations differ by the degree to which they overlap with national legislation. Or, in other words, rural actors have demonstrated varying powers to translate legal rights into rights-in-practice (Verdery 1999). They have been able to exercise their legal rights only where local state authorities or social structures are sufficiently strong to back their rights. For example, Romanian villagers hold claims to shares of the village land, without the possibility to actually withdraw the land from joint operations (*ibid.*).

A third complicating factor is variance in the connection between legal rights and economic benefits (Giordano and Kostova 1996, Swinnen and Mathijs 1997, Verdery 1999). The linkage between rights and benefits depends on the nature of markets for land, machinery services, output, and credit. In many regions, monopolistic market structures have reduced the returns to land for farming land owners, while offering sizeable profits for more powerful actors. Finally, property rights and associated duties have become increasingly differentiated, with different entities holding rights and facing duties to the same object. For example, agricultural land in Albania, Czech Republic, and Slovenia has been found subject to claims by multiple actors, including title holders, historical owners, and lineages (de Waal 1996, Turnock 1998, Lemel 2000). Thus, the diversity of postsocialist property relations goes far beyond the differences in agrarian structures. It includes perplexing combinations of specific rights-in-practice and duties-in-practice, which translate into different claims on economic benefits and responsibilities for economic costs.

Agrarian transformations have been paralleled by profound environmental changes. Environmental changes associated with agriculture have not been uniform. Rural environmental problems have aggravated in some regions but relieved in others. The following four appear to be the main rural environmental problems in post-socialist Central and Eastern Europe, as suggested by a review of large-scale environmental assessments (CEESA 1999, OECD 1999, CEESA 2000, World Bank 2000):

- Loss of traditional landscapes and biodiversity: landscapes and biological species are threatened by the intensification of cultivation in some regions and land abandonment in others (Turnock 1998, Brouwer et al. 2001).
- Deterioration of irrigation and drainage infrastructure: water control systems have not been maintained, particularly in South-eastern European countries (Muica and Zavoianu 1996, Turnock 1998, Lemel 2000).
- Water pollution: increasing application of external inputs and inappropriate storage of slurry contribute to water quality problems.
- Soil degradation: agricultural intensification and abandonment of soil protection measures lead to depletion of nutrients, erosion, and acidification.

Thus, rural areas in Central and Eastern Europe have experience of radical changes in agrarian institutions and environmental conditions. The linkages between institutional and environmental changes are poorly understood, however. We therefore set out to explore the institutional dynamics underlying observed environmental changes through a set of case studies, which we introduce briefly in the following.

#### 4 THE CASE STUDIES IN OVERVIEW

We chose landscape and water management problems to examine the institutional dynamics surrounding common-pool resources in postsocialist transformations. The studies in the Czech Republic and Poland examine issues around the preservation of landscapes, to represent common-pool resources at the (inter)national level (see the text box and Figure 2). The studies in Bulgaria, Eastern Germany, Latvia and Romania investigate the management of water, presumably a primarily local common-pool resource.<sup>1</sup> The six case studies are located in a diversity of rural contexts in Central and Eastern Europe. Those range from Eastern Germany, which experienced rapid institutional reforms and integration into the European Union, to Bulgaria, Latvia, and Romania, in which agrarian reforms have met severe impediments. In-between these two more extreme situations are the Czech Republic and Poland, which have implemented reforms rapidly and are expected to join the EU soon. The focus on two types of common-pool resource situated in a range of postsocialist contexts was intended to facilitate analysis of the institutional dynamics characterising contemporary agrarian transformations in Central and Eastern Europe.

**Text box: The environmental issues examined in the case studies**

**Bulgaria:** The amount of water used for irrigation in the Plovdiv region has declined sharply since 1990. In addition, irrigation canals were not maintained, leading farmers to increasingly draw on underground water sources (Penov 2001, 2002).

**Czech Republic:** Bílé Karpaty has been declared a nature conservation area for its valuable cultural landscapes and species diversity. The restrictions imposed on farming practices have reduced the profitability of farming, leading to land abandonment (Ratinger and Krumalova 2001, 2002).

**Eastern Germany:** Investments in water control infrastructure transformed the low-moor region Schraden. The neglect of infrastructure maintenance over the past decade and a half has led to water logging in the spring and draught periods in the summer (Schleyer 2001, 2002).

**Latvia:** Drainage transformed Latvian agriculture and landscapes in the 20th century. However, many farmers stopped maintaining drainage canals after 1990. Deteriorating drainage systems have negative impacts on soil moisture conditions and cultural landscapes (Busmanis et al. 2001).

**Poland:** Agricultural land has rapidly shrunk in the surroundings of the urban centres Warsaw and Olsztyn. An increasing share of the land has been converted to housing land, reducing traditional agricultural landscapes and open space (Wasilewski and Krukowski 2001, 2002).

**Romania:** Irrigation management has fallen into disarray in Manastirea commune in the southern part of the country. Neither the state nor local people have maintained the irrigation system. The decline of irrigation has reduced the efficiency of water use and led to soil salinisation (Leonte 2002).

Land ownership is fragmented in all case study regions, as a consequence of land restitution to historical owners and the dominance of small holdings in pre-collectivisation land ownership. The Polish case study is a slight exception, as some land remained under private ownership throughout socialist agriculture. The major rural actors therefore include small holders, subsidiary farmers, non-farming land owners, large-scale com-

<sup>1</sup> We have by now learned that the designation of water management as a local problem is sometimes problematic. The centralised organisation of water control and construction of large-scale infrastructure under socialist agriculture make it hard to confine potential beneficiaries to a small local area. In addition, water control assumes national importance in some countries such as Latvia, where drainage has transformed cultural landscapes on a large share of total land.



mercial farmers, and co-operatives, the latter being typically operated by previous socialist managers. Local offices of central ministries and local authorities represent central and local governments, in the Bulgarian and Czech cases supplemented by specialised agencies subject to central control. These are the main rural actors, rounded out by a non-governmental organisation in the Czech case and a university extension project in East Germany.

**Figure 2: The case studies in Central and Eastern Europe**



The current situation is radically different from that under socialist agriculture. Large state farms and co-operatives dominated agricultural production in the case study sites, with the exception of the Polish sites. Large state bureaucracies were the tools for a strongly hierarchical approach to natural resource management, combined with some elements of local-level co-operation in water management. Technical agencies were responsible for the provision of water, construction and maintenance of irrigation and drainage infrastructure, soil conservation programs, urban and regional planning, and the protection of biodiversity. Postsocialist reforms radically altered the institutional framework for the management of common-pool resources as well as rural actor constellations. How agrarian transformations affected the management and state of common-pool resources is the topic of the ensuing analysis.

## 5 INSTITUTIONAL DYNAMICS DRIVING ENVIRONMENTAL CHANGE

This section summarises the comparative assessment of the six case studies. It begins with a review of new property legislation introduced by postsocialist governments, followed by an analysis of changes in governance structures. The section proceeds to discuss the differentiation of governance systems and property rights-in-practice within Central and Eastern Europe. It concludes examining the environmental implications of changes in governance and property.

### 5.1 REFORMS OF PROPERTY LEGISLATION

Legal property reforms initiated by Central and Eastern European governments have moved control over land and productive resources towards private actors, yet they have also maintained public rights to common-pool resources. The reforms have privatised excludable goods, such as agricultural implements, machinery, and houses. At the same time, most states have retained public property on key natural resources. The Bulgarian and Romanian governments keep irrigation infrastructure and water under public ownership. Reforms in Eastern Germany and Latvia have privatised small canals but have not modified public ownership of larger structures. Similarly, valuable biodiversity habitats and landscapes have been put under direct state management across the region.

Legal reforms have connected land rights with duties to maintain land attributes of a common-pool resource nature. Agricultural legislation subjects landowners to comprehensive duties for the benefit of wider interests in the land. The Czech government imposes restrictions on land use and farming practices in protected landscape areas to preserve biodiversity and landscapes. Latvian landowners have to cultivate their land and implement soil conservation practices in order to retain legal claims on the land. The Polish government has instituted strict regulations on the conversion of agricultural and forestry land to other purposes in order to preserve green space. The Bulgarian government allows landowners to dig wells, but limits the amounts of water that can be extracted legally.

Thus, property reforms in Central and Eastern Europe foresee a two-fold role for the public sector in property on common-pool resources. First, property laws subject some resources to state ownership. Water is the prime example for a natural resource which has remained under state ownership. Second, agricultural legislation connects rights to land with duties serving the protection of larger benefits originating from the land. Legal land rights are therefore circumscribed quite narrowly in many countries. There are differences between countries, though. The Czech government has imposed more severe restrictions on private land rights than the government in Poland, where many small agricultural land owners had maintained their land rights even during socialist agriculture. Yet these differences are more in the degree than the nature of public rights to common-pool resources.

### 5.2 THE WEAKENING OF THE POSTSOCIALIST STATE AND EXTRA-LEGAL PRIVATISATION

As governance has moved from the previously dominating state hierarchies towards markets and civil society, Central and Eastern European governments have lost some of their capacities to enforce property legislation as conceived in legal texts. Rural transactions increasingly respond to expanding markets and other non-state influences, even if

that means that they contradict state law. For example, the power of the Bulgarian state to monitor and enforce legal regulations governing the use of irrigation water and maintenance of infrastructure has declined markedly, as markets and rural power relations have exerted stronger influence on farmers. The Czech Ministry of Environment has been unable to impose legally prescribed restrictions on land use and farming practices, because market forces rendered farming within the legal limits unprofitable. Rural people therefore have increasingly contested legal property rights. Those with sufficient power have expanded their appropriation of resource benefits and control over resource assets beyond the degree defined in national legislation. They have also ignored associated responsibilities and duties.

This reconfiguration of legal property rights-in-practice finds expression in two related processes. First, people ignore the legal duties connected with their land rights. Latvian landowners abandon cultivation, despite the legal duty to keep the land under cultivation. East German landowners do not maintain the small canals traversing their plots though their newly obtained land titles require them to do so. Polish landowners divide agricultural plots and sell them to urban people for house construction, though national directives put tight restrictions on the conversion of agricultural land for other purposes. Bulgarian landowners dig new wells and extract water freely, ignoring legal duties to register the well and limit the amount of water extracted.

Property rights have become the site of political negotiations between governments and landowners, as illustrated by the debates between landowners and the administration of the Protected Landscape Area Bile Karpaty. Landowners claim that they hold extensive rights to the land and its attributes. They justify their claims with a vision of land restitution that does not only return land to its original owners but also guarantees them the same rights as they enjoyed historically. They therefore argue that owners should be compensated if the state imposed restrictions on land use. The central government and local administration of the Protected Landscape Area profess to a different notion of property rights. Their notion presumes that land owners are subject to certain duties in land management for public interests. Land use needs to meet certain environmental criteria, without further compensations. The notion is reflected in recent regulations for the protection of landscape diversity that assume the government's right to outlaw certain land uses perceived as detrimental to the public interest in nature conservation.

Second, powerful rural actors privatise resources and assets that are under formal state ownership through direct appropriation. In areas with weak state power, local actors defy state property claims in an outright manner. This may happen in clandestine ways, such as Bulgarian landowners extracting underground water without legal permissions. They may also breach small irrigation canals or deviate water from small rivers to water their fields, in the hope that those actions are not discovered or prosecuted. This illegal privatisation of resource flows and assets may also happen in the open, however. The looting of irrigation equipment is a wide-spread phenomenon in rural Bulgaria. The thieves drive to irrigation plants and disassemble the equipment in open daylight.

### 5.3 DECENTRALISATION OF STATE POWER AND LOCALISATION OF PUBLIC PROPERTY

Not only has state power declined in postsocialist Central and Eastern Europe, but it has also shifted from central to local authorities. Part of this broad shift has originated from the decentralisation policies enacted across the region. Yet the shift has gone beyond the

legally mandated degree of decentralisation in many regions. Central authorities have faced increasing problems to enforce national legislation, as local actor constellations have gained influence in the process of agrarian change. The balance of powers between central and local levels has depended on the nature of local power relations, the decentralisation programs enacted at the national level, and historical central-local relations.

In concrete, the decentralisation of state power affects property rights on common-pool resources in at least four ways. First, local authorities collude in extra-legal privatisation of resource flows and assets. For example, some Bulgarian municipalities have seized local irrigation equipment to protect it against looting and secure local control of the important productive assets. Agricultural producer co-operatives in other municipalities have taken over local irrigation infrastructure, creating rights-in-practice to the infrastructure. They claim rights though Bulgarian legislation does not allow the transfer of ownership rights on irrigation infrastructure to agricultural producer co-operatives.

Second, local government units increasingly act like private owners. Facing tight financial constraints, state agencies in charge of managing common-pool resources emphasise financial criteria more than political mandates. For example, state-owned water companies in Bulgaria have only weak incentives to provide water to small producers, even though their legal mandate requires them to provide water to every user. Because the central government mandates uniform water prices, the water companies have little interest to guarantee the costly water supplies to small farmers.

Third, local authorities refuse to enforce duties imposed on resource users for the benefit of non-local interests. They perceive their mandate as the protection of local interests, ignoring responsibilities handed down from higher levels of government. County governments in Poland ally with farmers and the broader rural society to make agricultural land available for urban housing demand. This local alliance drives urbanisation around the major urban conglomerates, circumventing national directives on land use zoning and land conversion. Mayors of rural municipalities in Bulgaria refuse to enforce irrigation regulations and get involved in the resolution of conflicts between the state-owned irrigation company and individual farmers. Furthermore, many municipalities reject the legal duty to maintain local irrigation infrastructure. Decision-making in rural counties of Eastern Germany tends to discriminate against the maintenance of water control systems, despite the negative effects their decisions cause on downstream counties.

Finally, local civic organisations and private initiative replace governments as the major force driving collective action for common-pool resource management. Some rural villages in Bulgaria have organised small-scale water user associations. A Czech non-governmental organisation has established a centre that disseminates information on environmentally-sensitive farming practices and support programs, provides labour services, and organises the joint marketing of ecological products. Inhabitants in Polish suburbs form small civic organisations to buy up agricultural land as a strategy to preserve open space in their environment. Larger farmers in Bulgaria rent small reservoirs, using them as water sources and fish ponds, but also supplying water to surrounding farmers.

## 5.4 DIFFERENTIATION OF GOVERNANCE SYSTEMS AND PROPERTY RIGHTS-IN-PRACTICE

The two trends, the waning of postsocialist state power and decentralisation, affect Central and Eastern European regions in different ways. As a consequence, local governance systems display significant variation. Governance has remained concentrated within centralised governments in some areas. Its centre of gravity has shifted to local governments in others. Central and Eastern European governments have lost their previous primacy in governance systems in some areas, giving way to national or local actors outside government. For purpose of the ensuing analysis, one can therefore differentiate between strong centralised states, strong decentralised states, weak centralised states, and weak decentralised states (see Table).

**Table:** Local governance systems in comparison

		significance of state power:	
		high	low
level of centralisation:	high	strong centralised state	weak centralised state
	low	strong decentralised state	weak decentralised state

It is important to keep in mind that this rough classification of governance systems refers to local political relations in Central and Eastern Europe. The focus on local governance implies the possibility that some areas in a country may best be characterised as strong centralised states, while others in the same country are better characterised as weak centralised states (because of differences in the relations between local and national actors). Also, this classification ignores the influence of international actors, which may strengthen local or central, state or non-state actors at any place. In general, international actors tend to strengthen central governments against other actors. For example, preparation for EU accession motivates relatively large government programs for the protection of biodiversity in the Czech Republic. The programs anticipate the agri-environmental measures funded by the agricultural budget of the EU. Financial and technical support by the World Bank facilitates the formation of water user associations in the Bulgarian countryside. Academics facilitate round-tables with the various actors involved in East German water control systems and supplying relevant information about options for their improved management.

An application of the classification scheme to the case studies suggests the following characterisation of local governance systems. The Czech and East German case studies depict strong centralised states, as central government agencies retain a significant level of authority over resource management. In contrast, the Polish case study serves as an example of a strong decentralised state, as county governments have more leverage on land conversion than central government agencies. The Bulgarian, Latvian, and Romanian case studies depict weak decentralised states, as the centre of gravity in governance is outside the state and largely dominated by markets. The penetrating influence of markets is balanced by local organisation only where suitable local actor constellations exist.

Comparison of the Czech and Polish approaches to landscape protection illustrates the difference between strong centralised and decentralised states. The Czech government has taken a hierarchical approach to landscape protection in Bílé Karpaty. It has demar-

cated a Protected Landscape Area by legislative act and has established an administration that is responsible to the Ministry of Environment. Local interests in the land are largely excluded for the sake of the national interest in landscape protection. In contrast, the Polish government has not established specialised administrations for protected areas in the Lubelskie and Warminsko-Mazurskie provinces. The central government has demarcated protected areas, just as the Czech government, but it has put local governments in charge of them. The central government instead seeks to influence local governments through subsidy programs to finance environmental protection. The resulting Polish governance system allocates much more power to local governments than the Czech system.

Differences in governance systems are juxtaposed by variation in the gap between property legislation and rights-in-practice. Though happening in every context, extra-legal privatisation is a much more wide-spread phenomenon in weak states, as illustrated by the examples given above. Private actors directly appropriate state-owned resources and ignore state-imposed obligations much more in the Bulgarian and Latvian case studies than in the Czech and Polish ones. Property rights in weak states resemble the 'recombinant' property relations in Hungarian industry described by Stark (1996). Private actors in weak states successfully negotiate control over public assets while rejecting responsibility for associated liabilities. However, attempts to 'recombine' property rights happen in strong states as well. Czech land restitutions seek to claim land rights in their historical extent, rejecting land use regulations motivated by environmental goals. East German farmers do their best to ignore duties to maintain water canals, calling upon local governments to do the job. Yet strong governments are better equipped to keep these attempts under control.

### 5.5 ENVIRONMENTAL CHANGES

The findings of the comparative institutional analysis suggest that the observed environmental decline in Central and Eastern Europe is closely associated with the reconfiguration of property rights. Institutional changes caused by larger agrarian transformations contribute to the deterioration of common-pool resources. Irrigation water usage declined precipitously in Bulgaria, leading to competition between up- and downstream users and increased reliance on underground water sources. Improper use of irrigation systems in Romania has caused water logging and soil salinisation. The neglect of water control systems in Eastern Germany has led to draught periods in summers and water logging in springs. Soil conservation practices have diminished in Latvia, producing a rise in soil acidity and changes in local flora. Urbanisation in Poland consumed a growing area of agricultural land, making traditional rural landscapes disappear. Only the Czech case study reports a reversal in the trend of environmental degradation. After a few years of widespread land abandonment, strong involvement by the central government motivated landowner to take up farming again.

The blooming orchids of Bile Karpaty illustrate that only strong centralised states have been in the position to protect public interests in national common-pool resources. Yet the orchids also serve as a reminder that concentration of power in the hands of centralised government agencies neglects local interests in common-pool resources. The exclusion of local interests may pose a threat to the integration of interests required for sustainable management in the future. In contrast, the Polish case study depicts a balance of interests that is quite opposite to the Czech case. The local alliance of interests in ur-

banisation prevents the protection of rural landscapes for the interest of the larger Polish society. The lack of attention to national interests may motivate efforts by the central government in the future to push national interests in landscape protection. In comparison, the East German case demonstrates the problems of strong centralised states in managing local common-pool resources. Water management in the Schraden region has collapsed, also because centralised government agencies could not react to the specificity of the local problem. Thus, common-pool resource management in strong states seems to depend on the match between the level of centralisation and the level of the common-pool resource. Centralised states protect national but not local common-pool resources, while decentralised states protect local but not national common-pool resources.

As for weak states, the fate of local common-pool resources has depended on local actor constellations. In many places, powerful private interests have prevented the realisation of collective interests, leading to widespread degradation of local common-pool resources, as shown in the Bulgarian, Romanian, and Latvian studies. Yet local actor constellations have also supported individual or collective action for the management of local common-pool resources in some contexts. For example, farmers in some Bulgarian villages have organised individual or collective management of irrigation infrastructure at a small scale. External assistance has helped the establishment of some water user associations in Romania and Bulgaria. However, one may doubt that local collective action can support public interests in national common-pool resources. The improvements in resource management that we have studied have been limited to local common-pool resources.

## 6 SUMMARY AND CONCLUSIONS

Postsocialist agrarian transformations have exerted strong influence on rural environments in Central and Eastern Europe. Agrarian change has brought about a radical re-configuration of rural property relations, driven less by legislative reform than by local negotiation of legislative changes. Various positioned rural actors have contested control over land, natural resources, and other assets, quite independently of property legislation. The outcomes of local negotiations resemble the 'recombinant' property described by Stark (1996), as powerful actors seek control over assets but reject responsibility for associated obligations. 'Recombinant' property, in turn, finds expression in widespread neglect of public and collective interests in common-pool resources and associated environmental deterioration.

The political dynamics surrounding common-pool resources attest to the distributive conflicts that have characterised privatisation in Central and Eastern Europe. In contrast to the main privatisation laws, the distributive issues examined in this paper have received relatively little attention at the national level. Yet they have been the objects of vigorous contestations at the local level. Thus, attention to the specific rights and duties connected with resources adds an additional dimension to the distributive politics and complexity of postsocialist property relations. Rural actors in postsocialist Europe do not only face the challenges of translating legal texts into rights-in-practice, connecting legal rights with tangible economic benefits, and disentangling overlapping rights, but they also negotiate the specific rights and duties associated with various attributes of land and other resources.

Underlying the gap between property legislation and property rights-in-practice have been two broad trends in postsocialist governance. Expanding markets and weakening state capacity have shifted governance from the previously dominant legal and administrative state hierarchies to markets and civic forms of co-operation. Decentralisation has moved state power away from central towards local authorities. Yet the weakening and decentralisation of state power has not affected rural Central and Eastern Europe uniformly. Rural governance displays a market differentiation between strong and weak states as well as between centralised and decentralised states. The discrepancy between property legislation and property rights-in-practice has been most pronounced in localities with weak states. The variance in rural governance has therefore differentiated environmental changes in the region.

Our findings suggest a role for government in the management of common-pool resources in postsocialist Central and Eastern Europe. Governments may not get involved directly in the co-ordination of common-pool resource management activities, but they can strengthen public and collective interests in common-pool resources through measures that support market allocation and co-operative management (cf. Grafton 2000). Markets, which have come to dominate rural governance, require definition, monitoring, and enforcement of environmental duties by governments, if markets are to meet public interests in common-pool resources. Co-operative management of national common-pool resources would benefit from government assistance in the dissemination of expert knowledge, monitoring, and enforcement. Even local common-pool resource management would need government support, particularly in enforcement and dissemination of expert knowledge. Rural areas in postsocialist Central and Eastern Europe are subject to strong external influences and characterised by significant power differences, requiring government involvement to create the conditions for local collective action.

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