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### ***Institutional problems and management aspects of shared cultural landscapes\****

***Conflicts and possible solutions concerning a common good  
from a social science perspective***

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For more information about the conference: [http://osl.ethz.ch/pdf/Proceedings\\_OSL.pdf](http://osl.ethz.ch/pdf/Proceedings_OSL.pdf)

## **1 Introduction**

Today's European landscape is the result of human forms of land use over centuries. Changes to – and the preservation of – the cultural landscape is an ongoing, dynamic and contradictory process (cf. Antrop 2005; Schenk 2001; Sieferle 2003). The ecological, socio-economic and aesthetic problems of changes in shared-use landscape and their ambivalent effects on sustainable development are well-known. A diverse range of high-level monitoring systems for observing spatial or ecological processes exist as well as scientific theories and models with sophisticated indicators describing land-use change. Wide-ranging planning systems and well-defined legal regulations concerning various aspects of nature protection have been established. But in reality there is a considerable difference between the high level of knowledge and regulations, and the contradictory, often unsustainable changes in the landscape. Although Germany, for instance, has a comparatively well-developed system of landscape protection (e.g. landscape planning, nature protection) and inclusion of landscape issues in the political instruments of town and regional planning, every day 105 ha of open space is transformed into sealed land. In contrast to this situation, and in view of the continuous process of globalisation, cultural landscape is currently being rediscovered as a potential force for and an object of regional development.

To understand these phenomena it is useful to enrich conventional planning perspectives with theoretical approaches from social science (Apolinarski/Gailing/Röhring 2004). From this perspective the paper aims to explore the driving forces of changes to landscape as well as the existing conflicts and regulatory deficits of a management of cultural landscape.

First, the generation and use of cultural landscape will be characterised from the viewpoint of institutional economics. Next, the paper focuses on the institutional driving forces of landscape change. It then examines what institutional problems can occur in connection with the shared use of landscape. Finally, ways of dealing with conflicts concerning landscape change by means of suitable forms of governance and regional institutional arrangements will be discussed using the example of regional parks in urban agglomerations in Germany.

## **2 Common good aspects of cultural landscape**

Cultural landscape will be defined in this paper as landscape altered by human activity, irrespective of qualitative or normative considerations. This broad and dynamic understanding covers rural and city regions. In contrast to other definitions our understanding of the term cultural landscape is not based on normative principles – even if there are great differences in landscape quality.

Theoretical considerations from the perspective of institutional economics offer new insights into the shared generation and use of cultural landscapes. Due to its diverse elements cultural landscape is not a homogeneous good, but a heterogeneous regional common good, consisting of a multiplicity of partly inconsistent components with socio-economic, ecological and aesthetic functions (multifunctionality of landscape).

Following the theory of institutional economics (Musgrave et al. 1994, pp. 67), goods are defined in general with reference to their levels of rivalry of consumption and excludability

from consumption (Fig. 1). But rivalry and excludability are highly simplified criteria – in reality we usually find mixed forms. Nevertheless they are suitable for characterising typical behaviour of actors regarding the effects of dealing with common and private goods.

	<b>Rivalry</b>	<b>Non-rivalry</b>
<b>Excludability</b>	<b>Private goods</b> e.g. agricultural land use, forestry, private residential building	<b>Club/Toll goods</b> e.g. garden plots, public gardens with restricted access, golf courses
<b>Non-excludability</b>	<b>Common Pool Resources (CPR)</b> e.g. rivers and lakes, remnants of unspoilt landscape	<b>Public goods</b> e.g. aesthetic appeal of a landscape

Fig. 1: Goods dimensions of cultural landscape

Private goods are characterised by rivalry and the possibility of excluding other actors from consumption, e.g. the same field can be ploughed only by one farmer. If one of these criteria, rivalry and excludability, does not apply, then the goods are common goods, which can be analytically divided into public goods, club or toll goods and Common Pool Resources (CPR). Everyone can derive benefits from public goods without disturbing other users, assuming the good is not scarce, e.g. the aesthetic appeal of a landscape. Club or toll goods are characterised by excludability and in that way rivalry can be avoided. Examples are garden plots with membership agreements or public gardens with restricted access. But in the case of CPR, if it is impossible to exclude other actors, rivalry can be expected. Ecological goods and services and remnants of unspoilt landscape belong to this category. Many of these goods have changed from a public good into a scarce CPR in the course of time.

Due to the multifunctionality of landscape and its elements, different functions can assume different types of goods and services. Socio-economic functions of landscape, e.g. use by agricultural production, forestry, housing and production activities, tend to be used as private goods. Ecological functions, e.g. biodiversity or groundwater recharge, mostly have a CPR character. Aesthetic functions as a public good, e.g. beautiful landscapes serving to encourage identity-establishment, are in danger of changing from public goods to CPR.

Because the different functions are highly integrated with one another actors cannot reduce their activities relating to a single function without consequences for others. These positive and negative external effects can be detected in the case not only of common goods but also of private goods. The impacts of these effects on the common good cultural landscape are dependent on the economically and socially determined behaviour of the actors. The rational behaviour of actors can in particular lead to negative external effects of resource overuse or the degradation of resources (cf. Hardin’s “The tragedy of the Commons” (1968 pp. 1243)) or to “free-rider” problems (cf. Olson 1965): everyone can derive benefit from the high quality of cultural landscape without contributing to the preservation of this quality (Fig. 2). On the other hand, positive external effects can also occur.



Fig. 2: Cultural landscape labels are often misused by shopping malls (e.g. "Lausitz Park")

### **3 Institutions as driving forces of landscape change**

Driving forces influence the "evolutionary trajectory" (Bürgi et al. 2004, p. 858) of the cultural landscape. Therefore it is necessary to analyse these drivers to understand the processes of "intentional" or "accidental" (ibid., p.859) landscape change. Antrop (2005, pp. 25) identifies the following driving forces of cultural landscape: accessibility, urbanisation, globalisation and, in addition to that, catastrophes. These are essential processes and conditions of landscape change at the level of actions - but the real driving forces of human behaviour which create these phenomena have to be found at the level of the rules and regulations behind them.

According to institutional theory (cf. Young 2002, pp. 5) human behaviour is influenced by a wide range of formal and informal, centralised and decentralised institutions. Formal institutions are sets of rules and regulations or administrative structures articulated in constitutive documents (e.g. nature protection laws). Institutions in that respect must not be confused with organisations, which are actors influenced by institutions. It is important to recognise, however, that especially formal institutions do not simply provide orientation for actors; they are themselves subject to (re-)shaping by actors (Scharpf 1997). Taking into consideration that the behaviour of real actors is not completely in accordance with the requirements of formal institutions, Young (2002 p. 6) has distinguished rules on paper and rules in use. The reason for that can be seen in the inconsistent goals of different formal institutions and in the influence of informal institutions on actors' behaviour, e.g. traditions, customs, identity and aesthetic or ecological values. They are often highly resilient and it is very difficult to change them in order to meet particular objectives.

In general institutions concerning landscape can be divided into three categories: those concerned with the utilisation of the socio-economic functions of landscape (agriculture, forestry, settlement activities), those concerned with the protection of the ecological or aesthetic functions of landscape (nature protection, heritage protection) and those concerned with the integration of both aspects (regional planning, landscape planning). Each of these

institutional regimes is characterised by special institutional configurations and logics of action.

From the perspective of institutional theory the highly varied interpretations of the term landscape, each rooted in specific functional, disciplinary and political contexts, constitute informal institutions of considerable resilience, rendering the negotiation of objectives for regional development particularly difficult. Thus, for example, the conservative understanding of cultural landscape is founded on a historical, aesthetically determined, pictorial image of a perfect landscape. Other points of view emphasise the productivity of the landscape, its contribution to regional identity and development or its multi-functionality and relevance to sustainability objectives. The variety of definitions of landscape in existence influences the orientation of institutions and must therefore be considered when analysing institutional relationships.

Given the multifunctionality and heterogeneity of the common good cultural landscape, comprehensive institutional regimes designed to regulate the development and use of landscape as a whole cannot exist. In fact the change of landscape is more or less a by-product of market forces and sectoral policies and their different institutional regimes which are often oriented monofunctionally. Their effects on cultural landscape – positive and negative – are therefore often unintentional. As a consequence, separated functional landscapes (agricultural landscapes, energy landscapes, traffic landscapes, recreation landscapes) arose for multifunctional landscapes (Nohl 2001, p. 224).

The institutional constellation of socio-economic functions, mostly claimed to be private goods, is characterised by a broad set of laws and other formal regulations, influenced by market forces and sectoral policies, e.g. regulations of the first pillar of the Common Agriculture Policy (CAP).

To regulate and preserve the ecological functions and services of landscape as CPR or public goods a multitude of legal requirements also exists, e.g. different formal acts concerning resources and nature protection legislation, supplemented by economic incentives e.g. of agri-environmental schemes. But the actors behaviour regarding these formal institutions is considerably influenced by informal institutions. The ongoing degradation of nature and resources is an indication of problems concerning legal effectiveness and goals which diverge between actors and social requirements.

Aesthetic functions and their individual perception are dominated by informal institutions. Because the aesthetic functions of landscape require individual perception to work, value-oriented informal institutions are of great importance. Their formation is influenced by the perception of the existing cultural landscape. Due to the fact that the comprehensive character of cultural landscape has been lost and new elements with new landscape functions “co-exist in today’s landscape in a more or less unrelated manner” (Nohl 2001, p. 224), “general aesthetic standards can hardly be found today” (p. 225). Formal institutions of landscape planning and nature protection do refer to aesthetic aspects, but are much more oriented towards ecological aspects. Fig. 3 presents an overview of the character of institutions and goods with regard to landscape functions.

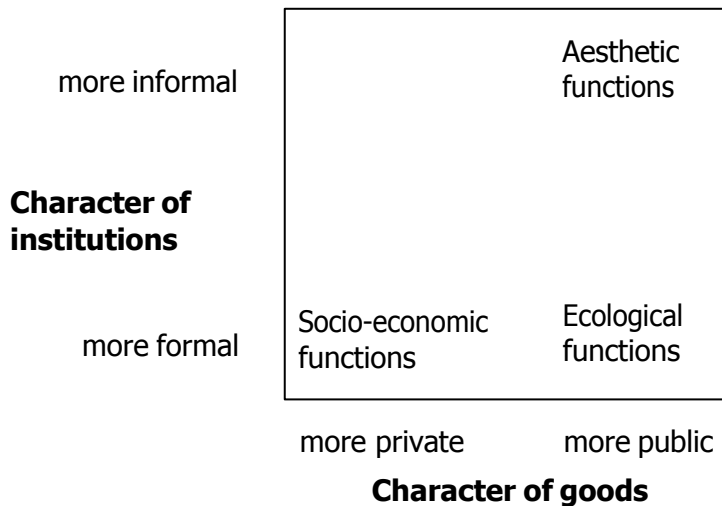


Fig. 3: Landscape functions and their characters of goods and institutions

The interactions between the institutions regulating the socio-economic, ecological and aesthetic functions of landscape, addressed in the following section, are influenced essentially by these relationships.

#### 4 Institutional problems of shared landscape

Given that the change and protection of cultural landscape is largely guided by institutions and considering the fact that the consequences for cultural landscape are often not taken into consideration when designing or adapting institutions, the problems of shared landscape can be seen as, in essence, institutional problems (Young 2002, pp. 20):

- firstly as "problems of interplay", e.g. between sectoral public policies and their institutional regimes for regulating particular issues with diverging or coherent impacts on landscape,
- secondly as "problems of fit" arising from the incongruity between cultural landscape and administrative areas and
- thirdly as "problems of scale", of finding the right level for managing problems of cultural landscape.

Problems of interplay – between sectoral institutional regimes concerning the shared use of landscape

The variety of landscape elements and the shared use of landscape lead to a high density of institutions affecting cultural landscape. However, institutions and institutional regimes to regulate specific matters are often created without sufficiently taking into consideration the effects on other policy fields or aspects of multifunctionality. This can lead to conflicts affecting the aesthetic, ecological and economic functions visible in cultural landscape change. Because of the given functional interdependencies in the shared use of landscape, problems of interplay (Young 2002, pp. 23) between institutions regulating different functions can occur. But institutional interplay can also be intentionally designed by "politics of institutional

design and management” (ibid., p. 23) often caused by functional interdependencies (Fig. 4).

	<b>Functional interdependencies</b>	<b>Politics of institutional design and management</b>
<b>Vertical</b>	Effects of German Renewable Energy Law (EEG) on existing local agricultural land use regimes	MAB-Programme (UNESCO) and designation of biosphere reserves at state level
<b>Horizontal</b>	Drainage or irrigation regimes and their aesthetic or ecological effects on landscape	Specific ecological agri-environmental measures created also to serve the aesthetic revaluation of landscape

Fig. 4: Examples for landscape related institutional interplay (framework adapted from Young (2002, p. 23))

Both different types of interplay can take place horizontally, i.e. between institutions at the level of landscape, or vertically, i.e. between these institutions and rules and regulations at higher levels of legislation (state, federal or European level).

Current tendencies expanding the ranges of sectoral rules and regulations in the sense of multifunctionality as a political concept (cf. OECD 2001) lead to increasing institutional interactions and require deliberate consideration of these facts and their influence on landscape if conflicts are to be avoided. One example is the extension of the CAP in the last 15 years from the regulation of agricultural production to agri-environmental policy and finally to diverse measures of still more complex rural development. In this way, for instance, functional interdependencies between agriculture and nature protection, activated especially by agri-environmental measures, have been increased. These measures, designed and managed by the logic of agricultural institutional regimes, are characterised, however, by the dominance of action orientation and a low outcome orientation and by the freedom of choice of farmers as to the selection of measures and areas, often independently of the requirements of nature protection. The consequence is that “farmers do not choose those areas with the highest potential value for conservation, rather they select those areas which are the most unproductive or the most inaccessible” (Hehl-Lange 2001, p. 106). Therefore the intentional design of institutions and institutional interplay as well as closer cooperation at the regional level between the actors of agriculture and of nature protection are necessary to avoid negative and to produce positive effects, especially on the ecological functions but also on the aesthetic functions of landscape. An example is the implementation of colorfields or bloomingstrips as temporary scenic arrangements on set aside or arable land (MLUR nd).

Another dimension of interplay in connection with the change of cultural landscape is the interplay between formal and informal institutions. The behaviour of actors in using the given scope of institutions and identifying institutional windows of opportunity with regard to ecological or aesthetic aspects of landscape is essentially influenced by informal institutions, e.g. regional identity or aesthetic and ecological values. Nassauer (1995, p. 230) deduces

that “human landscape perception, cognition, and values affect the landscape and are affected by the landscape.”

Problems of fit and scale – between centralised institutional regimes and the regional requirements of cultural landscape

Institutional problems of fit (Young 2002, pp. 20) concern, in the case of cultural landscape, factual compatibility or spatial congruence between institutional arrangements designed to manage particular human activities and the specific requirements of cultural landscape at the regional level. Institutional problems of scale (Young 2002, p. 26) result from the spatial difference, for instance, between the level at which especially formal institutions are created and the level of cultural landscape at which institutions work. Another aspect of scale is finding the right level for managing the aesthetic, ecological and socio-economic conflicts. Whereas cultural landscapes can be the subject of regionalisation and regional management independent of administrative areas, formal institutions are mostly bounded by administrative areas, so that problems of spatial fit can occur.

Formal institutions, representing goals of centralised public policy, are often designed in a generalised manner at the state, federal or European level to regulate different issues shaping landscape, for example the European Water Framework Directive (WFD) aimed at the sustainable development of river landscapes. But cultural landscapes are characterised by a wide range of specific landscape features and different historical developments resulting, for instance, in varied, partly unsustainable land use or water regimes of drainage or irrigation, shaping a specific cultural landscape. (Fig. 5)



Fig. 5: “Beautiful” landscape as a positive by-product of the drainage regime and agricultural land use in the large settled polder region “Oderbruch”

These problems of interrelationships between institutions or between institutions and the landscape level are often not taken into consideration by actors dealing with shared cultural landscape. The analysis of institutional problems can contribute to devising ideas for new institutional arrangements and governance structures at the level of cultural landscape.



## **5 Managing shared landscape – the case of regional parks**

In the face of a globalising economic and cultural environment and European-wide processes of accelerated land-use change, both landscape and cultural landscape are currently being rediscovered as a key issue of regional development. International legal rules and conventions therefore aim less to implement classical instruments of landscape protection following a command-and-control approach, but rather to focus on integrative management strategies: the European Union's European Spatial Development Perspective (ESDP) calls for the "creative management of cultural landscapes" and the "enhancement of the values of cultural landscapes within the framework of integrated spatial development strategies" (European Commission 1999). The Council of Europe's European Landscape Convention (ELC) commits the signatory states "to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity", to "establish and implement landscape policies aimed at landscape protection, management and planning" and to "establish procedures for the participation of the general public, local and regional authorities" (Council of Europe 2000).

A cultural landscape – understood as the product of human activity and societal developments – can only be the subject of active attempts at regional management if the historically conditioned institutional framework shaping its use and development is understood as fully as possible and taken into strategic consideration. For that purpose new forms of governance (cf. Fürst 2004) and institutional arrangements specifically designed to meet the requirements of shared cultural landscape and to involve regional and local stakeholders in these processes are necessary to deal with the above-mentioned institutional problems and to comply with the requirements of ESDP and ELC. However, regional actors and administrations have to keep in mind that it is impossible to manage the landscape change as a whole due to the above-mentioned multifunctionality, institutional heterogeneity and complexity of shared cultural landscapes.

In Germany in addition to formal methods of regional and landscape planning new governance structures to enhance regional landscape policy and to solve typical institutional problems and conflicts of landscape regarding socio-economic, ecological and partly aesthetic aspects have arisen in the last few years: e.g. agri-environmental cooperatives (Müller et al., 2002), regional initiatives concerning cultural landscapes in biosphere reserves (Kühn 1999) and collaborative landscape planning (Danielzik/Horstmann 2000). These new governance structures do not present themselves as a substitute for classical formal planning instruments, but supplement them in their efficacy by models of stakeholder participation or their project orientation.

Spatial trends like urban expansion and urban sprawl, the fragmentation of open space by the construction of infrastructure networks and the consequent ecological problems and degradation of landscape aesthetics shape urban agglomerations and their surrounding cultural landscapes. Due to the competition in the use of land in urban and suburban areas, landscape policy and open space protection in urban agglomerations has to deal with aggravated problems of institutional interplay.

For these reasons in some urban regions protagonists involved in landscape policy have recognised that the metropolitan open space depends not only on the top-down approach of public landscape protection, but also on bottom-up activities. Regional parks are a particularly successful example of integrative and active management strategies. They have been established in order to produce value for the open spaces by means of project-oriented regional management. Problems of spatial fit between regional open spaces and administrative action spaces are solved by interlocal collaboration. Regional stakeholders resolve institutional problems of scale by the implementation of new action arenas and actors such as regional park authorities or subregional park development societies. Improving living conditions and mobilising urban landscape is to be achieved by the collaborative implementation of landscape projects and by overcoming problems of institutional interplay between sectoral fields such as local recreation, sustainable agriculture, nature protection, the protection of cultural heritage and landscape architecture. Regional parks improve the accessibility and increase the aesthetic attractiveness of open spaces by providing networks of footpaths and cycle trails, developing recreation and sports facilities and allowing room for art, cultural heritage or "urban wildernesses". Open space is gaining in importance for regional economic and spatial development in urban agglomerations as a "soft" location factor and an emerging core issue and action field for targeted sustainable landscape development. In the sense of multifunctional landscape management, individual open space interests are integrated and the status of open space is strengthened in a holistic approach. Former "residual space" can thus acquire a lobby in formal planning processes. The following list recapitulates the potentials of the regional park approach to solutions to selected institutional problems concerning urban landscapes and the protection of open spaces.

- Problems of interplay between sectoral institutions: Regional parks serve as an intersectoral management strategy for urban and suburban landscapes integrating socio-economic, ecological and aesthetic aspects.
- Problems of interplay between formal and informal institutions: Regional park development enables improved consideration of informal institutions such as regional and local identities or aesthetic values in formal planning processes.
- Problems of spatial fit: Regional open space takes on the character of an action space by means of the collaboration of local municipalities and stakeholders.
- Problems of scale: Activities on the different scales of the regional park, its partial areas and their local projects are each carried out within specific institutional arrangements.

The case studies of the "Emscher Landschaftspark", the "Regionalpark RheinMain" and the "Berlin-Brandenburger Regionalparks" (cf. Gailing 2005) introduced below demonstrate that regional parks are an innovative form of regional governance and landscape management to solve socio-economic, ecological and aesthetic problems in agglomerations and urban surroundings.

For decades the Emscher, a small river in the north of the heavily industrialised Ruhr region, was misused as a drain for sewage and waste water. Today the river and its ecological re-

covery project ("New Emscher Valley") is the linking element in the "Emscher Landschaftspark" regional park concept. The IBA - International Building Exhibition Emscher Park 1989-1999 - marked the starting point for the development of seven regional greenways in a north-south axis and a new greenway (east-west) along the Emscher from Dortmund to Duisburg. Many local and regional projects such as cycle trails, "industrial" parks and art on former coal tips aim to improve the quality of life and location conditions and strengthen the image of an industrial-cultural landscape. The IBA – promoted by the State of North Rhine-Westphalia – and its main project "Emscher Landschaftspark" have received international recognition for their approach to preserving industrial heritage and addressing post-industrial decline as well as population shrinkage.

The "Emscher Landschaftspark" is integrating aesthetic and certain ecological landscape functions in an exemplary manner through open space recovery projects in fields such as landscape architecture, "land art", sustainable water management and preservation of industrial heritage (see Fig. 6). As a result of a lack of collaboration with open space users (in particular farmers) socio-economic aspects have, however, been neglected. By means of the creation of new organisational and cooperational structures at the level of the regional park and its interlocally arranged greenways, the reactivation of metropolitan landscape policy has succeeded in the implementation of successful and well-known local projects.



Fig. 6: The aesthetics of the industrial landscape heritage gains recognition: UNESCO World Heritage Site Zeche Zollverein as an important part of the "Emscher Landschaftspark"

The "Regionalpark RheinMain" aims to join up and enhance open spaces, which are often reduced to remnants between settlements and infrastructures in the towns and cities of the booming Frankfurt area. The Park's main element is a corridor, a path accompanied by green structures. Apart from this linear feature the park developers (Frankfurt/Rhine-Main Conglomeration Planning Association and subregional publicly owned companies) are implementing projects such as playing grounds, pocket-parks and orchards, and smaller elements such as wells, monuments or lookout towers (see Fig. 7). Starting from a pilot area a regional network will develop.

The idea behind it is that people who come to appreciate these open spaces will protect them against urban pressure. The park responds to a strong need for local recreation. Together with a biodiversity network the park presents itself as a guideline for ecological compensation in line with nature protection legislation. Thus ecological and aesthetic aspects of urban landscape development are well integrated in an implementation-oriented regional planning approach initiating locally differentiated management solutions in collaboration with local authorities. The "Regionalpark RheinMain" is seen as a planning tool in the process of metropolitan identity building and as a major asset to increase the region's international competitive capacity.



Fig. 7: Natural or artistic attractions turn suburban landscape in the Frankfurt area into something to be experienced

Based on the Joint State Development Programme for Berlin and Brandenburg a chain of regional parks is planned to develop and maintain a green belt around Berlin including the relevant parts of the Berlin municipal area (see Fig. 8). Due to the lack of a common management organisation the Regional parks in Berlin and Brandenburg have to "grow from below". The concept of creating eight regional parks around Berlin is no more than an offer by the states of Berlin and Brandenburg to the local communities, to the people living and working in the affected regions and also to the open space users. Thus the differences between the regional parks are enormous: some parks are still waiting for their formation (e.g. "Flutgrabenaue"), while in other parks landscape projects have been realised based on existing local networks (e.g. "Barnimer Feldmark"). Because of the fact that most of the regional park areas are sparsely populated and used for agriculture, forestry or recreation, collaboration strategies to manage the interplay between land-users like farmers or persons providing tourism services are relevant.



Fig. 8: Maintaining the sharply defined city boundary is one of the main goals of regional parks around Berlin

A lack of financial resources, a lack of collaboration between Berlin and its surroundings and a lack of efficient management structures results in only a small number of projects being realised. On the other hand this "institutional void" offers good prospects for actions integrating the motives of land-users and for civil society based associations. Thus, landscape policy opens up perspectives for sustainable development following the principle "ecological protection by sustainable socio-economic use".

Fig. 9 presents a review of the regional parks introduced and compares them on the basis of their institutional characteristics. Despite inherent or possible problems like the underestimation of agricultural land use, dependence on public finances or the preferential treatment of symbolic interventions, regional parks can be identified as efficient tools for strengthening the status of landscape in urban and regional policies. By bridging the gap between conception and implementation they are complementary to existing formal planning processes.

	<b>Emscher Landschafts-park</b>	<b>Regionalpark Rhein-Main</b>	<b>Regional parks in Berlin and Brandenburg</b>
<b>Problems of interplay between sectoral institutions</b>	Integration of aesthetic and ecological goals; underestimation of certain socio-economic dimensions (esp. agricultural land use)	Integration of aesthetic and ecological goals; underestimation of certain socio-economic dimensions (esp. agricultural land use)	Integration of socio-economic and ecological aspects ("ecological protection by sustainable socio-economic use")
<b>Problems of interplay between formal and informal institutions</b>	Local and regional processes of identity-building based on the aesthetics of industrial cultural landscape; integration of landscape issues into regional economic development policy	The regional park as a tool for regional identity-building and aesthetic-oriented landscape policy; integration of these issues into formal planning institutions	Concentration on aesthetic aspects of "classical" cultural landscape; delegation of hard-fought land use conflicts in the suburban landscape to formal planning institutions
<b>Problems of spatial fit</b>	Area of the regional park covers relevant parts of the open space structure in the northern Ruhr area, crossing the administrative borders of municipalities and regional planning authorities	Area of the regional park covers relevant parts of the open space structure in the Rhine-Main area, crossing the administrative borders of municipalities, integration of local landscape concepts (e.g. Frankfurt Green Belt)	Eight regional parks crossing the administrative borders of municipalities and the state border between Berlin and Brandenburg
<b>Problems of scale</b>	Strategy of multi-level governance (local projects, inter-municipal working groups, regional management organisation)	Strategy of multi-level governance (local projects, subregional publicly owned companies, regional planning association)	Bottom-up management solutions (e.g. local associations of land users); lack of regional management organisations

Fig. 9: Regional Parks: Comparison of the responses to key institutional problems

## 6 Conclusion

To deal with shared-use cultural landscape in a responsible manner it is necessary to bear in mind that landscape is a regional common good consisting of a multiplicity of heterogeneous, partly inconsistent components with various social, economic and ecological functions, goods and services. Given its multifunctionality and heterogeneity, however, comprehensive institutional regimes designed to regulate the development and use of cultural landscape as a whole cannot exist. For this reason the changes to cultural landscape is more or less a by-product of market forces and sectoral policies and their different institutional regimes; their effects on landscape – positive and negative – are often unintentional. Therefore, cultural

landscape is essentially influenced by informal institutions e.g. social and individual values, traditions, customs or regional identity.

Given that the change and protection of cultural landscape is driven by formal and informal, centralised and decentralised institutions cultural landscape problems can be seen as, in essence, institutional problems: problems of interplay between sectoral institutional regimes and between formal and informal institutions, and institutional problems of spatial fit and scale. New forms of management and institutional arrangements specifically designed to meet the requirements of cultural landscape can contribute to dealing with the institutional problems of shared landscape. Regional parks, characterised by project orientation and co-operative arrangements, can be seen as new flexible governance structures in this sense. Their project activities aimed at solving intersectoral problems of institutional interplay and problems of spatial fit and scale also involve informal institutions (especially identity and aesthetic aspects).

The implementation of these new governance structures can, however, also lead to diverse problems: the risk of reduction solely to a marketing instrument, the dependence on public finance, and the lack of legal regulations to impose measures. Especially because of the latter it is necessary to understand new governance structures not as a replacement for, but as an addition to, administrative authorities and legal rules and regulations regarding regional and landscape planning. According to this understanding the idea of regional parks can be important for the creation of new governance structures in other types of regions (e.g. rural regions). In addition, traditional formal instruments like nature parks, biosphere reserves, national parks and formal regional and landscape planning can integrate elements of the new governance structures to extend their given scope of action.

Managing the change and preservation of shared cultural landscapes as a regional common good in a better, more sustainable way is a challenge which can be mastered only if the driving forces of landscape change are understood and the opportunities to influence these processes are recognised.

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