Two Approaches for Understanding Land-Use Conflict to Improve Rural Planning and Management

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Abstract

Land-use conflicts reveal the contemporary evolution of rural areas. They illustrate the rising popularity of the countryside among an urbanized population, which might be in conflict with traditional ideas of rural land uses and living. Because public decision makers have difficulty recognizing the diversity of societal demands and users of rural and periurban areas have difficulty vocalizing their preferences, participative approaches have become an important planning strategy. Ideally, they go together with conflict analysis about causes, effects, and preferences and thus supplement classical formal planning instruments. In this article, we present two examples of land-use conflicts occurring in rural settings: conflicts related to the residential environment and to outdoor recreation. Methods for distinct conflict analysis are presented and strategies for land-use planning and management are described. Two case studies, one collective action approach from Puy-de-Dôme, France, and one participative planning approach from the Black Forest, Germany, underline the different forms of litigation used by stakeholders to change land-use planning and management, empirically. Finally, the need for new modes of governance and institutional arrangements for collaborative regional and local landscape planning is highlighted and suggestions for their application are made.

Key words: Land-use conflicts; rural area; living environment; collective action; participative planning

1.0 Introduction

Today's European landscape is the result of centuries of agricultural land use. However, in the past 50 years, rural landscapes and communities have undergone tremendous changes. While farming was once characterized by diversified family farms and supported by nearby rural communities, it is now dominated by large

farms, monoculture cropping, and consolidated livestock operations, with a high proportion of abandoned land. Additionally, various groups are demanding alternative land uses, like biodiversity conservation, nature protection, and improvement of the attractiveness of rural areas for recreation and tourism (see, e.g., Nohl, 2001; Vos & Meekes, 1999; Werner & Seyfarth, 2000). These changes have altered natural ecosystems and the social fabric of rural areas and communities (e.g., Antrop, 2005; Sieferle, 2003). Owing to the multiple functions of rural areas and the diverse actors involved, such as farmers, nature conservationists, tourists, and inhabitants, collisions between human demands and the capacity of rural areas to satisfy them are becoming daily events (Brouwer & Van der Heide, 2009). Because the different uses are highly integrated with one another, actors often cannot reduce their activities relating to a single use without consequences for the others. This can lead to conflicts affecting aesthetic, ecological, and economic functions of landscapes, with ambivalent effects on the sustainable development of rural areas.

In order to conceptualize the benefits society derives from rural areas and to improve land management, the concept of ecosystem services was introduced (Egoh et al., 2007). Ecosystem services are understood as the benefits people obtain from the environment that can be provided by human-modified ecosystems (Costanza et al., 1997; Millennium Ecosystem Assessment, 2005). De Groot, Wilson, and Boumans (2002) suggest a classification of four categories of ecosystem functions that can be distinguished: the "regulation function" of ecosystems, meaning that ecological processes and life-support systems are regulated through biogeochemical cycles and other biospheric processes; the provision of refuge and reproduction habitat of ecosystems for plants and animals ("habitat function"); and the production of food, raw materials, and genetic and medicinal resources ("productive function"). Besides these life-supporting functions, ecosystems may also provide an essential reference function by giving opportunities for reflection, spiritual enrichment, cognitive development, recreation, and aesthetic experience, reflecting their close relation with nature (Chiesura & de Groot, 2003). A fourth category refers therefore to the "cultural function" of ecosystems. Owing to the multifunctionality of the landscape and its elements, different functions can assume different types of services. Ecosystem services are emphasized as powerful tools for rural development, as they link natural resource management more to the functionality of natural systems (e.g., Pagiola & Platais, 2002).

The decline of agricultural land together with a growing environmental service sector introduced new ideas for active land planning and management toward multifunctional use and the production and maintenance of societal-valued landscapes (Blaschke, 2006; Piorr, 2003). The overall goal is to maintain a productive landscape as well as to allow economic growth, taking into account the future needs of society and the environment. Since the first reform of the European Structural Fund at the end of the 1980s, strategies have been developed to promote multisectoral approaches. Multiple factors and points of view have to be considered by private action groups as well as public-sector planners in planning processes for designing future rural landscapes. Catchwords like *cooperation*, *economic diversification*, *the development of niche markets*, and *strengthening tourism* are among these new initiatives. In this sense, particularly, participative approaches are applied to improve land-use decision making. However, because of different participation methods used by authorities, and different participation

possibilities for affected interest groups, not all societal demands are included and can be expressed in planning approaches. As a result, land-use planning decisions are often felt on the basis of only few represented interest groups, and may become a source of debates and conflicts. Therefore, better, i.e., more comprehensive, public participation in decision making is encouraged. In this context, the Aarhus Convention sets a clear signal: "In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of the Aahrus Convention" (Aarhus Convention, 1998).

While facing political, administrative, and methodological difficulties for decision makers to include all affected interest groups in the planning process, collective protest became a way for users to react to planning decisions and to express their use preferences. The debate over rural land use often hinges on disagreements about societal values and preferences, resulting in conflicts that take place on the local, regional, national, and international levels, bearing enormous social costs.

This paper is based on a French–German collaboration prepared for a graduate seminar on land-use conflicts that took place in Clermont-Ferrand, France, in January 2008. The seminar objectives were to illustrate the diversity of rural land uses on the local and regional levels, empirically related to conflict situations and management solutions. The objective of this paper is to underline this diversity. We are focusing on the cultural function of landscapes: more precisely, on landscapes suitable for outdoor recreation and for residential living. On the basis of two case studies from France and Germany, strategies of public interventions in rural land-use planning are presented. First, based on a theoretical orientation of land-use conflicts, institutions for landscapes, and planning approaches, the concept of public participation is introduced as one *ex-ante* planning principle to incorporate diverse interests into land-use decision making (see section 2.1). Here, potential conflicts are analyzed before planning decisions are felt. Second, the concept of collective action is presented as a strategy in a residential area to react to and to change land-use planning decisions in an *ex-post* way, after the decision has been made (see section 2.2). Afterward, two examples of rural land uses are described in more detail: the countryside as a place for residential living and for outdoor recreation. Both uses are then empirically underlined by two case studies, where related conflicts are identified in an ex-ante and an ex-post way. Planning principles, risks, and chances are discussed and recommendations for improved land-use planning strategies given, strengthening participation possibilities for local governance and the incorporation of conflict studies.

2.0 Land-Use Conflicts, Institutions, and Planning Approaches

A theoretical perspective on conflict and institutions concerning landscape can offer valuable insights into the multifunctional use of rural areas. Conflict over land uses occurs between or within stakeholder groups. Therefore, they can be characterized as social conflicts, that is, they are common disputes over interests, hierarchies, or norms. The term *conflict* used throughout this paper refers to social relationships and processes in which two or more individuals or groups can be distinguished by their different interests in problem-solving activities (Coser, 1964). In the understanding of social conflict theory, conflicts are seen as a motor

for societal development and decision-making improvement (e.g., Dahrendorf, 1990). This also applies within resource allocation approaches. Here, conflicts are regarded as indicators for detecting diverse interests, noneffective resource allocation, and use systems.

Land-use conflicts have some inherent characteristics that make them difficult to deal with. On the one hand, land-use decisions involve complex natural systems and processes, long time scales, and uncertainty. On the other hand, land-use decisions are often felt on the regional and local levels, which encompass heterogeneous political, cultural, and societal systems. These are often influenced by supraregional forces like globalization and broader societal trends, for example, demographic changes, and may substantially differ in their local institutional contexts.

According to institutional theory (Young, 2002), human behavior is influenced by a range of formal and informal institutions. Formal institutions are sets of rules and regulations and administrative structures articulated in constitutive documents. They provide orientation for actors and are themselves subject to (re)shaping by actors (Sharpf, 1997). Often, formal institutions have inconsistent goals and thus informal institutions, like traditions, habits, identity, aesthetic, or cultural values, perform a major influence on actors' behavior.

Following Röhring and Gailing (2005), institutions concerning the landscape can be divided into three categories: institutions concerned with the utilization of socioeconomic functions of the landscape (agriculture, forestry, settlement activities), those concerned with the protection of the ecological or aesthetic functions of the landscape (nature or heritage protection), and institutions concerned with the integration of the two aspects (landscape planning, regional planning). Each of these institutional regimes is characterized by specific configurations and logics of action. Given the multifunctionality and heterogeneity of rural landscapes, a comprehensive institutional regime to regulate the development and use of landscapes does not exist. A change of landscape is more or less a by-product of market forces and sectoral policies. Their effects on landscapes—positive or negative—are therefore often unintentional (Röhring & Gailing, 2005). As a consequence, separated functional landscapes arose for multifunctional landscapes (Nohl, 2001). Many of them, like the socioeconomic functions and the ecological functions, are covered by a broad set of laws and other formal regulations, for example, the Common Agricultural Policy (CAP), Resources and Nature Protection Acts, and Agri-Environmental Schemes, while others, like the aesthetic functions of the landscape, lack standardization and are dominated by informal institutions like norms and traditions. To overcome functional interdependencies and to regulate interactions between the socioeconomic, ecological, and aesthetic functions of the landscape, coordinated landscape planning approaches are in use.

Regional and landscape planning in many European countries is based on formal methods taking into consideration a set of relevant legal regulations, covering spatial plans for defined administrative territories as well as sector plans. The main objective of spatial policy and planning is to coordinate the various sector plans for sustainable land development on different administrative levels. The responsibility lies with the respective sectoral authorities, who must find an agreement before taking an administrative decision. Spatial plans at a higher administrative level establish general objectives and principles, which are framework guidelines to be

considered at lower levels of spatial planning in terms of intended development and the types of land use resulting from it. Similarly, this also applies to municipalities, who set up their own land-use plans, by weighing local public and private demands. However, the contents of the development plans finally depend on the political decision of the local government. Thus, land-use policy and land-use planning are in the hands of state and municipal authorities that are allowed to exercise an influence on market-dominated development tendencies. However, a common vision of sustainable development is often missing owing to a diversity of sectoral responsibilities and spatial scales.

To enhance landscape planning and to solve institutional interplay problems, new governance structures for collaborative landscape planning have been widely established (Danielzik & Horstmann, 2000). These new modes of governance are intended to supplement classical formal planning instruments with models of stakeholder participation and project orientation. In this context, regional nature parks are a successful example of integrative planning strategies, where regional stakeholders resolve institutional problems of scale by the implementation of new action arenas and actors such as regional park authorities (Röhring & Gailing, 2005).

Decision makers need to incorporate the diversity of local land-use interests to handle conflict and thus to improve land-use planning and management decisions. According to Wondolleck (1988), five key strategies are needed for effective conflict solutions over land-use planning and management: (a) building trust, (b) building understanding, (c) incorporating conflicting values, (d) providing opportunities for joint fact-finding, and (e) encouraging cooperation and collaboration. For all five strategies, it has become a precondition to balance the conflicting objectives of various actors and stakeholders, making their involvement in the decision-making process necessary.

2.1 Participative Planning: Ideas of Planning Authorities

Growing societal awareness and international farming policy initiatives have forced public authorities to introduce participation possibilities in rural land-use planning in order to serve societal needs. Beginning in the 1960s and 1970s, local, state, and federal regulations increasingly required that citizens be involved in decisions likely to affect them (e.g., Blatner, Carroll, Daniels, & Walker, 2001; Korfmacher, 2001; Larson & Lach, 2006).

The term “public participation” is widely understood as individual involvement in organized activities or groups, ranging from volunteering to serving in official roles, as well as group involvement in land-use planning and other resource-management activities (Larson & Lach, 2006). Participation has been undertaken in a variety of settings (Patel, Kok, & Rothman, 2006). The literature on public participation is enormous: Land-use planning approaches, in particular, form a dominant topic (Blahna & Yonts-Shepard, 1989; Cvetkovich & Earle, 1994; Moote & McClaren, 1997; White, 2001). Opinions about the effectiveness and desirability of public involvement range from optimism (Jones, 1996) to skepticism (Soule, 1995). An advantage of representative participation in land-use decision making is gaining a picture of the range of thoughts, feelings, and knowledge about a particular issue (McComas, 2001). This appears to be particularly important when decisions directly affect the place where people live. In this regard, research suggests that citizens are likely to engage actively in decision processes when their neighborhood is threatened (McAvoy, 1999). Therefore, good

rural land-use planning should involve local actors in order to decentralize decision making and draw on local knowledge and residents' interest in land-use changes (Korfmacher, 2001; Larson & Lach, 2006). Collective learning, exploring unused potential, and the exchange of ideas and methods within networks should help the local population work actively on its own future and to show alternatives to established decision makers. In the same way, intensive participation should help support new project ideas or the development of strategies and, to a large extent, avoid conflicts through early-stage clarification. Ideally, cooperation and regionally balanced procedures also result on the political level.

In contrast, two aspects especially seem problematic for participative planning processes: (a) the distribution of power by planning authorities and (b) the representation of interests in participative planning approaches. Political authorities and administration for decision making must be integrated and must redistribute power and allow a choice of decisions. A common approach to public participation is to hold open meetings and comment periods where anyone who wants is allowed to give input. While they are considered insufficient for some decision processes (e.g., Arnstein, 1969; Larson & Lach, 2006), public agencies commonly recruit citizen participants from organized groups who have expressed an interest or are active in long-term projects.

Participants of such groups often share similar sociodemographic characteristics and may not be representative of the broader public or other interests. This homogeneity raises concerns about the degree to which the interests of organized groups also represent the views of individuals impacted by decisions, leading to the second crucial question: Who should be involved in land-use decision processes (Chess, Hance, & Gibson, 2000; McComas, 2001)? Kangas, Loikkanen, Pukkala, and Pykalainen (1996) attempt to answer this question based upon "(…) the publics' perceived benefits or threats." Obviously, attempting to evaluate an entire set of stakeholders or interest groups would be problematic. Unanswered is how representative of the public's preferences are the participants. Summarizing, stakeholder representation is highly dynamic, with possible discord within and among groups, and shifting of stakeholders between groups.

2.2 Collective Action: Interventions by User Groups

Decisions made by public officials concerning land uses inevitably change the distribution of wealth and political power and cannot respect unanimity, even if such choices are based on general interest. A wide literature concerns the supply of public goods and the participation of the state. Buchanan (1965), Tiebout (1956), and Wicksell (1958) contest the prevailing action of the state to supply collective goods because this mechanism squanders resources and does not efficiently adjust the supply to demand. Some economists concentrate their research on the problem of the "demand-revealing process." They present numerous tools to reveal preferences for *trial-and-error* processes for public goods (Clarke, 1971; Drèze & De La Vallée Poussin, 1971), but, in many cases, it is not possible to use this kind of analysis to reveal the citizens' demand. Not every member of a society actively participates in land-use planning processes. Instead, concerned individuals often choose representatives who participate in planning approaches in accordance with their preferences, especially on the municipal level. In the end, politically powerful representatives influence planning decisions. The decision sometimes creates a negative external political effect, if voters' preferences cannot be communicated

effectively to representatives (Buchanan & Tullock, 1962), for example, because elections do not take place often. Frequently, elections are a long way off, and opponents have no chance to communicate their preferences concerning the choice in time. According to Hirschman (1970), people choose numerous ways to react against the decision maker: People can accept the decision (*loyalty*), they can move to another place to escape from their voting district (*exit*) (Tiebout, 1956), or they can speak out to signal their preferences in a collective action (*voice*).

In this last case, collective action appears as a form of political bargaining, allowing voters to express their preferences to the public decision maker in order to acknowledge the property rights that constitute their environment. Opponents try to participate in the public decision-making process and sometimes try to control the planning regulation tools to reach their goals. The Aarhus Convention stands up for this point of view (Aarhus Convention, 1998). Collective actions allow opponents on the one hand to exhibit their preferences and on the other hand to grasp the instruments of administrative regulations necessary to control the use in question. Here, lobbying information may replace the lack of elections by sending ignored information and preferences to a political representative (Vigouroux, 1999). To do so, interest groups regularly try to have their story covered by the local press to give greater power to their opposing views. There is a wide literature on the lobbying process and the individual interest of the public decision maker. Some researchers stress political corruption (Peltzman, 1976; Stigler, 1966); others describe pressure groups trying to increase their power in society to the detriment of another group (Peltzman, 1976; Stigler, 1971). However, political representatives need information to make decisions (Lohmann, 1995; Potters & Van Winden, 1992). In this context, land-use conflicts can also be seen as an output of situations where people contest local authorities' land-use decisions. Conflict signals that citizens do not want to be affected by decisions of the local public official. Faced with a planning problem, citizens may attempt to avoid the supposed problem by, for example, moving it to another jurisdiction or, more likely, by stopping the plan. Therefore, opponents have adopted several strategies to stop the planned location of the facility and to heighten public awareness. These strategies include demonstrations, open meetings, petitions, and the creation of websites ("voice strategies"). Additionally, the opponents' group may employ judicial means to change administrative decisions.

3.0 Two Examples of Rural Land Use: A Place for Residents and Recreation

In the following section, two emerging rural land uses are described that have taken on societal importance in the past decades and significantly changed the use of many rural areas: the countryside as a place for residential living and as a place for outdoor recreation. Both demands are influenced by the urbanization processes of users and uses (Fujita & Thisse, 1997). As a result, diverse interest structures coexist, traditional rural-oriented ones and urban-influenced ones, bearing potentials for conflict that are differently expressed by local actors.

3.1 The Periurbanization of Rural Areas

Residential living in the countryside is an important phenomenon that has been shaping many rural areas and commuter towns since the 1970s. Three characteristics indicate a growing demand for rural residential living areas

(Cavailhès, Dessendre, Goffette-Nagot, & Schmitt, 1994; Dillman, 1979; Fuguitt & Brown, 1990). First, a continuing periurbanization can be observed, that is, an interlinkage between urban and rural areas, characterized by a mixed mode of infrastructure and housing density (Goffette-Nagot, 1994). Second, there is a growing migration into the periphery. Retired people and tourists, in particular, looking for second homes make up a large portion of migrants seeking quiet and nature-linked living possibilities (Labie, 2004; Royer, 2002). Third, an intensity of urban sprawl is taking place. This may be due to the fact that a residential economy provides new jobs in rural areas (Kayser, 1992). Households' migration to rural areas is heavily driven by a residential search for quality of life, helped by lower transportation costs, the increase in the standard of living, and lower land rents (Plateau & Rakotomalaia, 2005). According to Lévy (1994), residents are seeking a lifestyle whose originality is organized around three key components, forming the capital of spatial settlement: housing, that is, individual home ownership and its adjoining green space; good access to a job center permitted by individual transportation; and unspoiled nature consisting of different amenities like landscapes, quietness, and clean air (Lévy, 1994). Commonly, residents are people with a high attachment to their home environment (Le Jeannic, 1997).

Residential conflicts take place on the local level, where the affected people live. They can be characterized by emerging in two dimensions (see Figure 1). First, a group experiences a negative technological external effect when another group uses the land resource (Baumol & Oates, 1988; Scitovsky, 1954). This is, for example, the case when residents are faced with activities like heavy traffic or emissions like smoke, wastewater, or nasty smells. Newly occurring environmental restrictions (for example, due to biodiversity protection or natural risk prevention), which are suspected to affect the use of the local, collective, good living environment, are also part of the causes arousing residential conflict. Second, a residential conflict introduces a situation that has a negative political external effect on the municipal level (Buchanan & Tullock, 1962) if, for instance, the public decision maker has agreed to the "disturbing" activities. Conflict arises when citizens do not want to be affected by the decisions made by the local public official. The collective action of opponents creates informal pressure on the decision maker to consider their property rights: rights to a quality residential living environment versus the local public decision.

Householders are usually highly attached to their houses and the area they live in, so they have difficulties abandoning their homeland, even when their living environment is negatively affected by planning decisions. Because moving is costly, demonstrations, open meetings, and lawsuits against planning decisions are often among the strategies used to stop the plan and to heighten public awareness (Hirschman, 1970). Then, the opponents employ judicial means to change administrative decisions. The opponents want the decision maker to acknowledge the property and/or use rights that constitute their living environment. They contest the decision-making process that ignores their preferences. This informal pressure by collective action aims at preventing the public official from making a choice responsible for damage. In a nutshell, residents who face conflict situations concerning their living environment often voice their preferences in order to influence the local public decision makers, rather than seeking monetary compensation or abandonment.

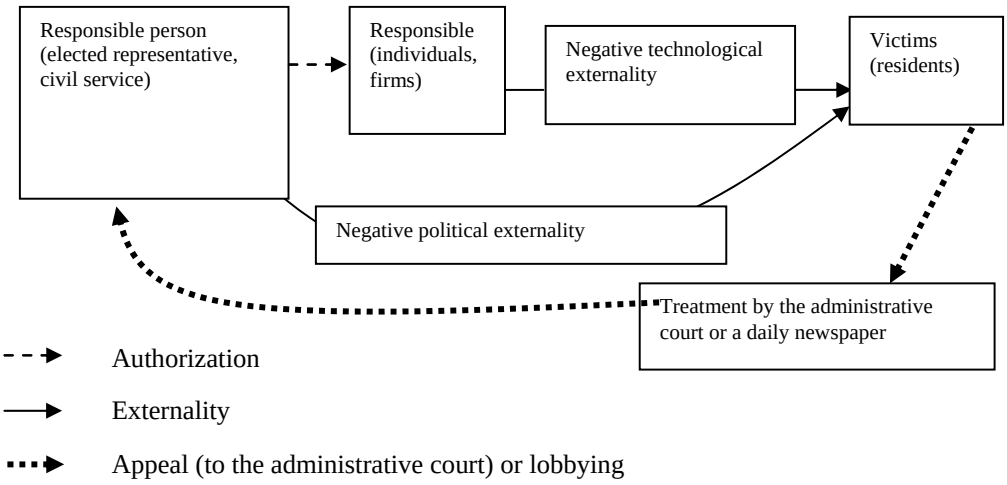

Figure 1. Diagram of political and technological externalities.

3.2 The Recreational Use of Rural Areas

In most European countries, outdoor recreation has gained societal and political importance in the last four decades (Gentin et al., 2008). Based on the European-wide comparison of forest recreation household surveys, at least 40% of the population visits a forest for recreational purposes (Dehez, Colson, Mann, & Sievanen, 2008). Prognoses indicate a continual rise of nature sport as a trend (Opaschowski, 2001). These activities require space and infrastructures, forcing rural areas to become increasingly more multipurposed to serve the recreational demands of society. The effect on the land is also noticeable: High recreational pressure and a general diversification of recreational demands leads to ecological and social impacts on rural areas, especially where there is a limited suitable natural landscape close to urban or densely populated areas. Negative effects, such as a high amount of traffic, vandalism to facilities, littering, and failure to abide by the rules have become significant and costly problems for managers (Schemel & Erbguth, 2000). Additionally, some recreational infrastructure development, for example, the creation of ski lifts, the use of snow canons, road networks, and car parks, may have severe impacts on biodiversity and thus increase the risks of pollution, erosion, vegetation losses, and the abandonment of agricultural practices in an area (McGowan, Thurlow, & Beyfield, 1999).

Besides general improvements to the site or sport infrastructure, concentrating use in some parts of an area in order to alleviate pressures on ecologically more sensitive ones is often the management focus of planners and managers (Roth, 2000). Today, the multifunctional use of rural roads may reduce ecological impacts elsewhere, but it also may engender social conflicts between user groups who have to share the same infrastructures (Aube, 2002; DSB, 2001). It seems that many potential conflicts are socially based and can cause problems for visitor flow management (Aube, 2002). In the past decades, the planning, design, and management of recreational areas often could not handle these conflict problems in an adequate way. Most conventional approaches do not incorporate diversified recreational demands and therefore may fail to reduce conflict (Ammer & Pröbstl,

1991; Opaschowski, 1999). Natural resource managers are recognizing that user-group conflicts are less a question of space and quantity and more one of social values, with different demands and user-group expectations (Mann, 2006). Today, better cooperation between nature sport, nature protection, and landscape managing agencies is required (Feige & Feil, 1997; Lana, 1999; Roth, Jacob, & Krämer, 2004).

To express dissatisfaction and conflict perceptions, recreationists do not often use the described voice strategy. The reasons for this are that material linkages to the environment are comparatively low, and that it is more difficult to develop a collective action among users who recreate mainly on an individual, unorganized basis. While experiencing conflict, it is easier for a recreationist to react by spatial or temporal displacement, i.e., leaving an area or changing the visiting time. As a consequence of recreation planning, activity-group interests need to be actively identified. Therefore, recreational users need a platform in order to signal a disturbance to be taken into account in planning decisions. Consequently, the recreationists' voice has to be actively identified before the planning decision is made. This may significantly differ from the residential situation, which may be confronted ex-post with the results of planning decisions without having any possibility of direct participation.

4.0 Two Case Studies of Land-Use Conflict

To illustrate empirically the conflicts to be considered in local and regional land-use planning decisions for residential and recreational uses of rural areas, two comparative case studies are presented. Both have the objective of providing information about conflicts to help decision makers to understand user preferences and to develop conflict solutions for land-use planning and management. However, they differ in scale (local and regional) and the time of the identification of potential conflicts (ex-post and ex-ante). Therefore, different analysis methods are applied to gain a better understanding of conflict.

4.1 Residential Conflict in Puy-de-Dôme, France: To Change the Quality of Life

Objective. The objective of the study is to understand the characteristics and the effects of residential-use conflicts. The focus is on opponents who employed judicial means to change administrative decisions. That is, conflicts are identified in an ex-post way. This informal pressure by collective action aims at changing the decisions made by public officials and the face of the countryside after planning decisions have been made.

Methodology. The target of the analysis is to extract information on land-use planning cancellations of administrative decisions; therefore lawsuits have been analyzed respectively. The local daily newspaper is especially interesting for understanding the warring parties' strategies on the regional and local level. A literature review in the French department Puy-de-Dôme, Auvergne, was carried out by analyzing how the local daily newspaper *La Montagne* reported residential land-use conflicts. The analysis covered regional and departmental lawsuits in a four-year period from 1998 to 2002. The review of conflicts in the daily newspaper was conducted from archival holdings of the university library of Clermont-Ferrand. For the selection of articles, a raster was developed to identify the type of

land-use conflicts and the related actors. To be accepted for the analysis as a conflict, the situation presented in the daily newspaper had to meet five criteria:

1. An environmental problem (e.g., a nuisance, an exclusion of a site, a ban on access) needs to be explicitly cited.
2. Two parties are in opposition (a protester and a contester).
3. The uses are identified for each party.
4. The environmental problem is located in the department of Puy-de-Dôme.
5. An element of reporting the conflict is referred to (e.g., a petition, street demonstrations, meetings, or other complaints).

Results. In the course of the literature review, 430 articles were identified, covering 148 conflict cases about land uses. Most information on land-use conflicts was identified in the newspaper section of the departmental and local communities. These 148 conflict articles were then again reviewed along the second raster of rural areas and residential conflict causes. Consequently, cases of localized conflict situations in urban spaces (23 conflicts) or when the conflict did not concern the residential environment were excluded. As a result, from the set of 148 conflicts, 67 final land-use conflicts over the living environment for residential rural area uses remained for further analysis.

Firms were the main actors complaining about specific land-use decision problems (38 cases of 67). Here, productive uses often disturb residential uses (see Table 1). In 35 of 67 identified land-use conflict cases, a firm or an individual causes a negative external technological effect, creating victims. For these cases, a public authority has authorized an activity, which was perceived as being undesirable for the living environment. The local public authority causes a negative political external effect because it allows an incompatible activity with the rural living environment. Public authorities create losers who believe that the right to pollute has been granted and may be responsible for the deterioration of their living environment even if the planner respects the law. The remaining conflicts reported (32 of 67) subsume cases where there is no negative external political effect but only a technological effect. We limit our presentation to the first cases.

Table 1. *Motivation to Contest in the Daily Newspaper* La Montagne

Motivation to contest mentioned in the daily newspaper *La Montagne*	No. of citations	Frequency
Pollution of natural resources (water, soil, …)	31	46%
Noise problem	15	22%
Odor problems	10	15%
Access restriction	5	8%
Landscape degradation	4	6%
Neighborhood problem	2	3%
Total observations	67	100%

Source. Data reduction of the daily newspaper *La Montagne* (1999–2002).

For a better illustration, an example of a "typical" identified residential conflict is described: In a small rural town, residents have joined together to prevent the development of a quarry. The residents fear the quarry trucks' noise and smell—a negative technological externality, and they refuse to accept the deterioration of their living environment. In addition, the authorization to operate the quarry can be seen as a negative political external effect. The prefect creates losers by the issuing of mining rights material to the firm, while neglecting the rights to a life without noise pollution caused by truck traffic in the municipality (50 trucks per day). The opponents express their fears at the public hearing by defending domestic-use communal ways and challenging the decision of the prefect to the administrative court.

The control of some administrative rights can indirectly give property rights to control common resources. To enjoy a living environment without nuisance, such as noise and nasty smells, opponents do not seek to assert a right in the comfort of their neighborhood (and which does not exist). They will act to change the local rules of the road or prevent the quarry from obtaining the authorization to extract. The arguments of the opponents are very different in the identified disputes. Most often they seek a loophole in the administrative decision to stop a legal activity, for example, by searching for errors in the prefectural or municipal decree (for instance, the date of publication of the decree, which does not comply with the law). This is litigation against abuse of power, which relates to appeals against administrative acts. The regulatory instruments contested were mainly given rights to use specific land and property for building permits, illegal location, or easement.

The results noticed in the cases reported in the daily newspaper *La Montagne* were generally positive for opponents. Of the 35 identified conflicts brought by defenders of the residential environment, three quarters achieved the disappearance or reduction of damage. The case study shows that ex-post decision protest behavior was able to alter political decisions to maintain or improve the quality of residential life. The monetary damage was very marginal (one case). The stopping of the plans and uses has an effect on the distribution of activities and welfare in the countryside. The stopping of productive activities such as pig farms or quarries by pressure from local residents has a positive effect on the living environment, raising or maintaining the quality of living in rural areas. Collective actions were thereby common for inhabitants who have ownership rights to local resources (like owning land or a house). These were attached to their environment and therefore had a high interest in actively controlling what is happening in their neighborhood.

4.2 Recreation Conflict and Participative Planning in the Black Forest, Germany

Objective. This study explores conflict-based visitor perceptions in the regional Black Forest Nature Park. The Black Forest Nature Park, located in the southwest of Germany, covers an area of 360,000 ha. It was established to produce value for the region by means of project-oriented regional management. Recreational and tourism uses are recognized as primary functions for that landscape. The study objectives were twofold: (a) the identification of potential conflicts over recreational uses and (b) the derivation of future management options for handling such conflicts. Therefore, this study is placed at the beginning of a planning process in order to avoid recreational-based use conflicts in the park.

Methodology. A three-step methodological design was chosen for this study. It is subdivided into, first, an initial quantitative–empirical part to describe recreational users, uses, and potential conflicts. Six distinct recreational user groups were chosen, representing the diversity of recreational uses in the park. These were hiking, mountain biking, cycling, horse riding, jogging/walking, and hang gliding. The quantitative findings were then qualitatively validated and interpreted as a second methodological step. Through problem-centered expert interviews, more should be learned about the self-perception of the outdoor recreation organizations and their positioning in the nature park's planning processes. To transfer the empirical results of the analysis into the planning practice of the nature park, an expert workshop was organized after the data analysis as a last methodological step. The participants represented a wide range of disciplines, like outdoor recreation, forestry, farming, nature protection, tourism, communities, and the nature park's management. In this step, the empirical results from all the recreation groups were shared, and all the stakeholders, recreationists as well as resource managers, were asked to evaluate and develop strategies they considered helpful for reducing identified potential conflicts and supporting the implementation of solutions. The rationale behind this step was that potential ways to solve problems can be most consciously activated by affected actors.

Results. The sample of outdoor recreationists consisted of 805 questionnaires from 200 member clubs from the six recreation organizations, and 10 representatives of different organizations within the nature park. Identified, potential conflicts most often recognized by the recreationists can be subdivided into two conflict areas: infrastructural/managerial conflicts and social conflicts. To the first conflict area belong impacts showing a reduced infrastructural quality. For example, "garbage" (43%) and "vandalism" (32%) have the highest conflict potential across all the nature sport groups. About 60% of the sampled horseback riders felt disturbed by a "displeasing path surface," and "too little signing" was often criticized by cyclists (32%) and mountain bikers (28%).

On the contrary, conflict ratings related to forest-management practices were diversely distributed among the groups. Especially horseback riders and hang gliders felt disturbed mainly by ecologically relevant items like "tree damage caused by forest workers" (48%), "uniform vegetation" (monoculture; 40%), and "too few close-to-nature forests" (naturalness or wild quality; 36%). Similarly, answers from the mountain bikers criticized "storm damage" (25%) as well as "too few close-to-nature forests" (25%). Signs of ongoing forest-management activities are generally evaluated as minor problems, while "artificial lanes [ruts or user-caused trails] and erosion" disturb all the nature sport groups in a similarly strong way (23%–46%; see Table 2).

The second conflict area, social conflicts, arises due to value differences. Within this conflict area, asymmetric conflict lines were found with more sensitive and more conflict-tolerant groups. Most recreationists of all the groups felt disturbed by "unleashed dogs" (35%), while "too many mountain bikers" were criticized by horseback riders (35%) and hikers (34%) as their main social disturbance. These two user groups also mention mountain bikers' disturbing behavior (too fast, too close, not giving signals). These interpersonal and value conflicts were among the main mentioned conflicts by the recreationists. They originate mainly on wide, heavily used forest paths (Mann & Absher, 2008).

Table 2. *The Identified Potential Conflicts (%)*

	Total	Hiker	Cycler	MTB[a]	Horse	Jg/Wlk[b]	Hgl[c]
(% sample)	100	50	10	7	15	15	3
Infrastructure (*n* = 767)							
Garbage	43	44	38	38	52	41	13
Vandalism	32	36	34	32	28	25	13
Monotonous path design	7	5	4	9	19	2	
Dirt trails	11	14	7	13	11	6	9
Displeasing path surface	29	27	23	21	61	16	9
Noise from civilization	16	18	16	11	19	12	
Fewer huts, benches …	14	17	16	8	12	10	22
Little path signing	25	25	32	28	21	24	13
Few toilets	17	21	18	9	13	10	17
Few parking spaces	7	7	9	4	6	4	22
Illegal fire rings	12	16	12	11	7	4	13
Forest management (*n* = 760)							
Lanes/erosion		31	33	23	46	30	30
Tree damages	14	20	17	17	48	12	13
Fewer views	33	22	21	26	16	15	39
Uniform vegetation	22	15	16	13	40	7	17
Storm damage	9	18	17	25	22	11	13
Branches/splinters	21	14	16	11	15	15	17
Snags	17	6	12	4	8	4	30
Few close-to-nature forests	18	14	12	25	36	7	13
Noise by chainsaws	18	7	1	6	24	6	4
Social attributes (*n* = 758)							
People leaving paths	8	11	7	4	6	7	4
Unleashed dogs	35	38	42	47	13	40	22
Mountain biker/cyclist	24	34	2	2	35	12	4
Hiker	2	3	11	12	7	4	
Horseback rider	3	13	9	8	1	2	
Crowding (*n* = 712; 638)							
Crowding – perceptions last stay (>5)	19	23	15	13	10	20	9
Crowding – perception Ø (>5)	17	20	12	13	12	18	17
Satisfaction (*n* = 741)							
Rather – not unsatisfied at all	6	8	3	4	3	2	22

[a]MTB=mountain biker. [b]Jg/Wlk=jogger/walker. [c]Hgl=hang-glider.

For management, the development of better communication strategies with involved user groups was considered useful for handling the identified value/norm

conflicts and to allow for diverse and multifunctional recreational uses. To follow this idea, a final project workshop was initiated, following three objectives: (a) giving feedback to all the involved user groups, i.e., the presentation of results for transfer into practice; (b) encouraging cooperation between users and planners/managers; and (c) developing and implementing strategies for land-use planning/management in the nature park. The workshop consisted of three phases (Weinbrenner, 2001). First, in a "critique phase," the participants were encouraged to comment on current management and land-use planning practices. Among the main critiques were that "church-tower thinking" of the involved communities in the nature park, where every community only seeks advantages for itself, hampers the establishment of a regional recreational infrastructure and that differing rates of involvement and participation among stakeholder groups unevenly influence planning decisions. Second, a "fantasy phase" was initiated. The participants were asked to describe their ideal situation for management and land-use planning, regardless of resources. It was said that all interests should be included (through surveys, scientifically based), and that there should be a permanent dialogue structure with a moderator. Third, within a "realization phase," strategies were developed and discussed with a focus on what is possible in the nature park and with the actors. It was decided that a regular round table for dialogue would be established.

A successful dialogue, however, needs a neutral moderator and catalyst. The nature park's management agreed to fill this position. As a local institution, it has a durable, local reference to all the involved stakeholder groups—to recreationists as well as to local authorities. In addition, the nature park authorities have a municipal–political importance. Owing to authorities' role as a moderator and dialogue initiator, problems of recreational uses can be identified at an early stage and problematic recreation trends recognized. Because of an additional need for allies within the park, the nature sport clubs as well as landowners suggested them as partners. Old attitudes of entitlement and protest behavior may be reduced in the organized nature sport sector because of collaborative planning activities. Communication in the unorganized sector may be easier for them than for land-management authorities.

Evaluations at the end of the workshop revealed that the conflict study as well as the workshop itself helped managers to gain valuable insight into potential conflicts in the park, to develop specific management strategies, and, based on this, to establish a communication platform for planning. This outcome allows for an ongoing exchange of ideas and demands and fosters mutual trust among managers, planners, and users.

5.0 Discussion and Conclusion

In this paper, we described and analyzed two different types of land-use conflicts on the regional and local levels: conflicts as a result of land-use planning decisions experienced by residential users, and potential conflicts identified by outdoor recreationists in an ongoing regional planning process of a nature park. The differences in the identified conflicts lay in their causes, in the strategies to signal them, and in their implications for planning and management.

In the case of the identified residential conflict, householders were confronted with substantial nuisance as an effect of planning decisions. Settlement decisions are governed by formal institutions applied at the municipal level: urban land-use

plans, development plans, and environmental regulations form, among others, the legal basis for land-use decisions (Wiegandt, 2004). This formalized approach has advantages and disadvantages. On the one hand, it limits the possibilities for participation of residents. Besides some possibilities to comment on construction plans, the development of a common vision of local development, or possibilities to suggest project alternatives, is commonly not given. Therefore, it is difficult or impossible for affected residents actively to influence the decision-making process and its outcomes. This is frustrating, particularly bearing in mind that citizens are likely to become involved in planning processes when their neighborhood is affected (McAvoy, 1999). As an effect, the only chance to express their dissatisfaction with the oncoming situation is to protest and to go to court. On the other hand, here, a formalized planning method provides a clear basis to check decision consistencies with the applied laws. In the case of procedural mistakes, the chances to alter land-use decisions are given. However, collective actions against land-use planning decisions like that described also bear a political dimension. While expressing conflict, the residential preferences for the maintenance or improvement of the quality of their living environment is transferred to the decision makers. Signaling conflict can be seen as a kind of bargaining process to influence administrative decisions in order to change the distribution of rural property rights.

The case of conflict over residential land uses illustrates two aspects. First, in land-use decision making, a set of regulations needs to be applied to organize common uses of environmental resources. Therefore, it is unlikely that all the stakeholder groups are satisfied with the state or predicted future of the residential environment. Public decisions in a world with heterogeneous interests necessarily produce winners and losers; therefore, the occurrence of conflicts is unavoidable. However, land-use conflicts highlight situations where uncompensated losers are seeking to improve their welfare. Authorities could use the conflict findings as a way to inform themselves about the acceptance of planning decisions and to improve decisions by local public officials and/or to conserve citizens' welfare.

Second, the planning process in the department of Puy-de-Dôme offers potential for improvements. It shows that residential interests are not recognized much in planning decisions. Moreover, residential users as an active and engaged clientele should be involved in planning decisions because they are the most directly affected actors. However, it seems that, especially on the local level, economic interests often overcome environmental quality issues. In many cases now in France, land-use resolutions are managed by zoning, which isolates incompatible activities to avoid collisions between diverse human demands: Therefore, the political trend is to invest in a policy of segregation of uses rather than to improve a multifunctional rural land management.

In contrast, for recreationists, it is easier to deal with conflict situations because of the availability of less energy-demanding alternatives to avoid undesired situations: They just change the places, times, or activities for their visit. For the management, it is important to know why recreationists prefer specific areas and/or infrastructure and/or time and what the management needs to do in order to make these places more attractive, for example, to relieve pressure on other ecologically sensitive areas. To gain information on this, authorities have to be proactive in collecting information, for example, through surveys, about use preferences and conflict perceptions for efficient resources allocation. The Black Forest case study

has shown that land-use planning concepts can be improved to accommodate current and future recreational situations by participative planning methods. The nature park, in contrast to the municipal settlement planning, applied a mixture of formal and informal institutions to be considered. The former included nature protection and heritage protection laws and the legal status of a nature park, while the latter included the common development of visions and norms among relevant stakeholder groups regarding the management of landscape aesthetics and ecological values. The creation of growing and open local networks helps to exchange ideas, create local identity, and foster the common development goal of a nature park. Once a network exists, other regional stakeholders are likely to join.

For land-use planning and management, new forms of governance (Fürst, 2004) and institutional arrangements specifically designed to allow for multifunctional uses and to involve regional and local stakeholders in these processes are needed. The active incorporation of diverse interests but also different segments of the population (e.g., different age groups) to define overall concepts and area-specific objectives (Pröbstl & Frank-Krieger, 1996) should become more common in the planning of rural areas and municipal development. Round tables (Kaule, Endruweit, Weinschenk, Feifel, Lutz, & Oppermann, 1994; Mayerl, 1996) and task groups (van Haaren, 1994) have gained importance as planning instruments in order to search for suitable conflict solutions but still lack a consistent application in planning processes. Here, planning authorities are asked for a more systematic application of participative methods, including the proactive inclusion of relevant stakeholder groups by using, for example, appropriate media to reach them (that is, internet for youths or public hearings in retirement homes for seniors). Where multiple actors should operate, a clear framework is needed for the allocation of powers, functions, and resources and for the distribution of responsibilities (Rakodi, 2003). There is no single blueprint and set of fixed rules to operationalize participation in land-use decision making. Any intervention must be adapted to the institutional context in which it is to be implemented. Generally, participatory capacity cannot be built quickly; it must be developed. Therefore, permanent platforms could be established by local authorities to create partnerships between individuals and between individuals and institutions, allowing local actors interested in the quality of the living environment to participate in a common visioning and consensus building in their region with shared interests (Masschelein & Quaghebeur, 2006). These can be facilitated by professional technical advisors to make sure that sufficient attention is paid to local interests. Additionally, opportunities for local people to take part in the decision-making process could be created by action programs and projects where stakeholders are invited to participate. To do so, additional financial resources should be made available for local governments to use for land-developing projects or for organizations of participatory activities. In other words, there must be an explicit and adequate financial commitment to stakeholder involvement (Tosum, 2000).

There are various reasons to foster participative planning approaches. Besides questions of natural resource allocation, society should have equal chances to experience environmental quality in times of growing urbanization and health problems. Thus, reliable information on land-use conflict is seen as a necessary precondition for an effective and efficient sustainable land-use planning system in light of recent societal changes (Mayer & Wildburger, 1998; Pröbstl, 2000). Additionally, knowing more about use preferences and conflict perceptions helps to facilitate the design of future rural areas and area management (Sievännen et al.,

2008). Land-use conflicts reveal the contemporary evolution of rural areas. Because conflicts point out differences in the interests and values of actors, they are to be seen as an important concomitant of societal development. As they occur, users and managers can be motivated to develop solutions in order to improve existing situations and deal with new situations in a proper and prepared way. Because a large number of different interest groups come together in rural areas and commuter towns, land-use planners and managers must familiarize themselves with the concept of perpetual, and at times subtle, conflict management. Owing to changing economic and social framework conditions, demands on the rural landscape will also change in the future. Recognizing these developments and understanding the users' perceptions of their environment can only be effectively achieved by including the users and listening to their visions and ideas.

6.0 References

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