Introduction

Natural Resource Management for Rural Sustainable Development

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This book presents some results of research which was conducted as part of the CORASON project, a cross-national study of on-going processes of rural sustainable development in 12 European countries which was funded under the EU Framework Six Research Programme over 30 months between 2004 and 2007. CORASON is an acronym for 'Conditions for Rural Sustainable Development' and its research started from the interpretations of the concepts of rural development and sustainable development used by rural actors, in policy programmes, and in public administration and planning. A series of case studies identified trends in rural and sustainable development that reveal the changing nature of development processes on the way towards a rural knowledge society.

The chapters of this book illustrate the different preconditions and contexts which emerge as relevant when rural development strategies are to be connected with strategies for sustainable development. It seems clear that there is more similarity and common understanding among rural actors about the nature of rural development, what the problems are and how they are to be dealt with, than about that of sustainable development. The changing meanings given to rural development over time are reflected in scientific discourses, in the policy process, and by relevant rural actors, and are by now well documented social practices. The concept of sustainable development is much more difficult to introduce into practice through the policy process, because of the complexity of the idea of sustainability, its nature as an essentially contested concept, and the presence of counteracting interests among rural and other actors that block redirection of development processes towards a new path.

To concretize both concepts, and to allow comparison of the processes which occur under each, we focus here on ideas and practices of resource management, as this is a core component in both rural and sustainable development objectives. Sustainable resource management is a unifying topic across the case studies which were carried out in the countries participating in CORASON, and it is closely connected to a second topic, that of knowledge use by actors involved in rural development. CORASON's approach was to deal with knowledge, not as prior to, but as part of, social interaction processes through which new social realities are going to unfold, in a manner described as 'path transformation' (Djelic and Quack 2007). This type of knowledge-related perspective, although found more broadly

in sociology, is rarely used in rural sociology and this became a motive for the research project.

The chapters which follow are organized under two overarching themes: (1) rural development with regard to diversification and innovation in rural economies, and (2) rural development with regard to environmental and sustainability issues. Connecting these two themes allows us to identify and discuss emerging ideas, practices and strategies for sustainable resource management which were found in the CORASON case studies and are summarized in the concluding chapter of this book. In addition, however, the case studies document how difficult it is to access the transition processes towards sustainability in the European countryside using established quantitative and qualitative methods of social research. The research focused on some specific themes: land use management and civil society practices of participatory development were taken as key trends framing more specific processes of local food production, non-agricultural rural economy, innovatory rural development, nature protection and bio-diversity management, and sustainable resource management, which were to be studied through regional and local case studies. A range of different methods was used, from interpreting statistical data to documentary analysis and, in the context of the case studies, qualitative interviews; the aim was to use an open methodology, as in much social anthropology, to find the seeds of new knowledge practices in rural development. But too often the dominant reality of social and political routines was experienced as sterilizing the change and transformation processes we were looking for. This happens both in the conventional way of dealing with the idea of sustainable development as a policyguided development process, unfolding in top-down approaches of implementing pre-fabricated development models by way of administrative implementation machineries that specify the process for different local contexts; and in more nuanced forms, where the same powerful institutions have co-opted a variety of non-political stakeholders by way of notions of participatory development.

The CORASON Research: Knowledge Processes for Sustainable Development

CORASON's overarching objective was to identify and explain the dynamics and variety of knowledge forms ('expert' and 'lay' – ranging from scientific, economic, administrative, and managerial forms to local, practical, and ecological knowledge, traditional repertoires, trial and error or experientially-based discoveries) used in rural projects in relation to rural economic development, rural civil society and the protection of rural nature. Associated with this were three further objectives:

- to open up the concept of 'sustainability' to examination in the context of rural development, and the knowledge combinations relevant to this
- to track the emergence of a knowledge society with all its inherent difficulties and varying forms across rural Europe, and the impact of these on social inclusion or exclusion and inequality

to develop an evaluation of the social, cultural and institutional sustainability
of these different forms of knowledge and of the interactions between them.

The research was carried out by a consortium of researchers from 12 European countries. These were drawn geographically from the European 'rim': East (Hungary, Poland, Czech Republic), South (Greece, Italy, Spain), West (Portugal, Ireland, Scotland) and North (Sweden, Norway, Germany). They were selected using the 'Green Ring' hypothesis (Granberg, Kovach and Tovey 2001), and it is important to note that some 'core' European countries, in particular those with established agrarian histories and traditions (such as France), were not included in the study. The participating countries and research institutions represent a variety of different social, political and historical backgrounds, lifestyles, economic traditions and cultures (including some distinctive variations within a single state, as in the cases of Scotland and East Germany). An important commonality across all the participating countries is the significance which rural culture and agricultural or an agriculturally based economy have had in their political, cultural and economic lives, even after the secular societal processes of industrialization and modernization. As the EU expands in members, and as European countries become more interconnected through shared policy frameworks, cross-national networks, and the trans-national communication of ideas, a capacity to grasp both commonality and differences between European states can significantly influence the understanding of how 'rural sustainable development' is being implemented on the ground and in development practices. Whether this 'Europeanization' represents only a new bureaucratic layer of policy, or whether it enhances path transformation and transition to sustainable rural development, is a question that recurred throughout the research.

Our interest in knowledge dynamics within rural society grew out of two contexts. The first is the current movement towards a 'knowledge society', widely supported across European countries and within EU policy as the way to achieve economically competitive societies, which are also potentially more democratic and place fewer burdens on the environment and natural resources. The impact of this movement on rural change is unclear. While rural areas are often seen as rich in natural resources for societal development, they are also often seen as areas with deficits in capacities and knowledge. We adopted a critical approach to the concept of a knowledge society, placing the expert forms of knowledge (scientific and technological) that dominate it within a broader understanding of knowledge that includes lay and popular forms of cognition.

The second context is the increasing emphasis which has been placed over the last decade on achieving development which is sustainable, both for society as a whole and for rural areas and social groups. In CORASON, sustainable development was, as a preliminary step, understood as a knowledge-based set of practices, used by social actors who are brought together by a shared desire to achieve transition towards a situation which is, at the beginning of the process, only vaguely formulated in terms of goals, visions or wanted future states. The political rhetoric of maintaining 'living' rural areas, in the sense of socially attractive, economically prosperous, and environmentally sound rural economies, can be understood as part of such joint efforts to make sense of an unclear idea. However, several of our case studies suggest that where expert-dominated and elitist development models are dominant, the standardized rhetoric that splits sustainable development into social, economic and ecological sustainability works more to block than to enhance rural development.

To assume that programmes, projects, and development practices aiming at (1) a knowledge society and (2) sustainable development somehow melt together into an enabling condition for transition to sustainability is too simple as an idea, and predefines too quickly a new social reality which has as yet scarcely taken root in the social practices of rural actors. Nearly two decades of agri-environmental policies in some EU countries have still not produced a broad consensus about ecologically sustainable development, and there is even less consensus about its links with the other two components, social and economic. And although consensus is growing on the importance of including a broad variety of social actors, with their respective interests and knowledges, in strategies for sustainable development, expert knowledge has generally played the dominant part and science has reasserted its aspiration to provide the only relevant knowledge, as the intensity of debates and research about sustainability in such disciplines as sociology, policy sciences, economics, ecology, and in interdisciplinary subjects shows.

In reaction to this neglect of lay actors, and of tacit, local or lay knowledge, it seemed important to study more systematically what roles they can and do play in this process as it develops within rural areas. The process of transition towards sustainability, it can be hypothesized, is one which takes place over generations, and one that will become rapidly more difficult, as not only institutional limitations but also deteriorating environmental conditions for economic development, such as degradation of ecosystems, exhaustion of natural resources, bio-diversity reduction and climate change, require action for which, despite the abundance of scientific knowledge, not enough applied knowledge, which could guide social action on resource management, is available. This reveals something of the nature of the coming knowledge society, as one in which the explosion of stored scientific knowledge conceals ignorance when knowledge is to be used for the practical solution of complex problems; it may be one of the reasons why such improvisatory ideas like 'transdisciplinary knowledge production' are currently attracting so much attention.

Munnich, Schrock and Cook (2002), pursuing some similar questions to our own, have used the concept of 'rural knowledge clusters', a concept which comes from firm-based industrial development and innovation processes, to analyse how rural economies can become competitive and innovative. Our analysis of

^{1 &#}x27;This framework augments the traditional industry cluster model by placing added emphasis on the instrumental role of knowledge as the driver of innovation and competitive advantage. This is especially important for rural economies, where advantages

the emergence of the rural knowledge society starts instead from an ecological point of view, assuming that rural areas are key areas for the societal transition to sustainable development as natural resources are largely found there. With the growth of the idea of sustainability, rural areas have gained new economic significance in the post-industrial and post-agricultural phase of development, as a reservoir of resources and potential for further development that has to support most of the tentative practices that aim at this transition, such as bioenergy production on agricultural land. This new significance of rural areas is visible in the manifold reactivations of the countryside as a diversifying, locally based agricultural economy encompassing new forms of production (including organic and non-food production), small-scale food processing, new forms of rural tourism, innovatory non-agricultural rural economy, and new forms of managing the complex natural resources, ecosystems and landscapes, which are found in, or related to, rural areas and policy approaches under ideas such as integrated rural development, resource management or sustainable development. In CORASON, these reactivations, their varying social and institutional forms, and their use of different forms of knowledge, was the subject of case-study research through which we sought to contribute to a comparative analysis of the emergence of a European knowledge society, identifying the roles of policies and of a variety of rural actors in managing this transition and the combinations of knowledge forms and processes of knowledge management which may be involved.

This approach to researching rural sustainable development differs from the more conventional one of reviewing and assessing sustainable development as articulated in scientific and political discourses. In this project we tried to encompass the main interpretations of sustainable development held by different actors in rural development - including both governmental (national, regional, EU administrations) and non-governmental (community groups, local networks, civil society associations, NGOs) actors - in order to understand what these interpretations might imply for the organization of sustainable rural development. While we devoted considerable attention to the policy process, it did not provide the dominant framework for the research. We were interested in broader and more pluralistic frameworks, a broader knowledge-base than scientific and managerial knowledge alone, and a broader interpretation of 'rural development' itself as something which is more than a political–managerial process. Rural development, from our perspective, includes a range of components: social, as in creating new sustainable livelihoods for, and by, rural populations; economic, as in redistributing economic and other resources to enable a socially inclusive development process; and ecological, in the sense of 'navigating' the connected development of social systems and ecosystems (Berkes, Colding and Folke 2003).

of agglomeration, scale economies, and highly articulated inter-industry linkages – key ingredients of successful metropolitan clusters – are less evident. Furthermore, this framework is consistent with the idea of knowledge as the fundamental basis of competitive advantage in the globalized economy.' (Munnich, Schrock and Cook 2002, 7)

Thus, where much research has emphasized evaluation, seeking to judge success or failure or to identify 'best practices' for sustainable development through policy processes, CORASON's approach was more open, descriptive and exploratory, aiming to grasp some of the new practices in the difficult transition to sustainability that often fall out of sight in conventional frameworks of policy analysis.

The core question the research sought to answer was, what knowledge is used, and how is it used, by rural actors in the rural development process to specify the concept of rural sustainable development? In a more systematic form we asked: How do different understandings of the (sustainable) future of rural areas in Europe help to value and promote some kinds of knowledge more than others? Through answering these questions we hope for a better understanding of how an emergent 'knowledge society' is being constructed and formed within rural areas in Europe as an emerging multi-faceted and regionally differentiated social reality.

Researching Sustainable Development

From the outset, we recognized that the 'sustainable development' discourse is characterized by variation and disagreement, both political and scientific. Sustainable development has been described as an 'essentially contested concept' (Jacobs 1999), and as a 'discourse coalition' (Hajer 1995). It can be seen as a 'battlefield of knowledge' (Long 1992) in which different participants disagree over who is entitled to produce the relevant knowledge for its interpretation, which knowledge is accessible and understandable for whom, and how knowledge sharing and integration is to be negotiated. From another point of view it works as a 'bridging concept', providing some general principles (such as intra- and intergenerational solidarity, or maintenance of the natural resource base) on which different actors following different interests can more or less easily agree. These accounts - battlefield or bridge - imply contradictory practices, yet both sets of practices are required to drive the transdisciplinary discourses that could guide the long transition towards sustainability. In CORASON we referred to sustainable development as a 'platform concept', to indicate how the discourse is driven by consensus at the level of principles and also by disagreements and controversies at the operational level, so that it is subject to ongoing interpretation and reinterpretation of its 'central' meanings.

It seems fruitless to deal with this concept in a conventional way, such as identifying its scientifically or politically formulated meanings and then finding adequate ways to ensure their diffusion, social anchoring and the building of consensus around them. Although this has not been well documented in scientific and policy processes since the quest for global sustainable development was embarked on in the early 1990s, it could have been learned early in these processes that sustainable development is not an idea that can be grasped and fixed in a scientifically sanctioned meaning but that it continually evades standardization; it describes a moving target which is continually informed by

new and changing knowledge, changing interests and institutional conditions both locally and globally. To apply the idea successfully would require its continual modification, updating, and improvement. It is already a significant result that the idea of sustainable development has been frozen in a mainstream notion of a balance between social, economic and ecological sustainability. This can be understood as a capitulation to the complexity of the goals to be achieved, not as a consensus which signals a movement towards a shared understanding and progressive realization of the guiding ideal. In other words, the mainstream version of sustainable development can be seen as wishful thinking, an aspiration to capture and integrate all the problems of development that have never before been capable of integrated resolution in modern societies. This wishful thinking does not address the preconditions for far reaching institutional change that would be required for the transition to sustainability.

The concept of sustainable development is by now widely disseminated in many national and international policy documents and agreements, but using these sources to interpret its goals and search for their implementation through policy programmes would produce a fragmentary picture of change. It would not allow us to see the development processes in total and over the long run, in the transpolitical social practices in which sustainable development is incorporated. An alternative to policy analysis, used in CORASON, was to try to establish how and whether sustainable development is being realized in knowledge-guided practices in rural Europe today. National strategies for sustainable development, guided by international strategies, as for example in EU policies and in the global 'Agenda 21', generally include rural areas within their remit but they do not always make any clear distinction between sustainable development in general, and rural sustainable development discourses and practices. Particularly in those versions which articulate ecological modernization perspectives, which have become the mainstream model in EU countries since the 1990s, there has been little specification of how this might be implemented for rural areas or what its implications are for the use of rural resources (see Bruckmeier and Tovey 2008).

Differences in national, regional and local situations, in rural development policies and in scientific traditions of rural research make it implausible to treat rural sustainable development as a single coherent discourse. Rather, it appears in many variants, some irreconcilable with each other, and large parts of the discourses develop outside policy processes and practices. In beginning the CORASON research, we did not expect to find a correlation between the coherent theoretical constructions of science and the (probably pre-analytic) visions of sustainable development held by rural actors. Rather than start with a predefined concept and look for indicators to measure progress towards the predefined goals, we decided to research the multi-faceted knowledge practices of rural actors who are themselves engaged in some form of rural development programme or project. In negotiated situations like these, a political rhetoric of 'joint goals' or 'visions' works more as a 'symbolic platform' on which the different actors can meet, using the same concepts while still following their specific aims and purposes.

Scientific interpretations of sustainable development tend to be rather general, lacking cultural, social or historical specification. This may relate to their emergence within a global discourse and to their concern to formulate universalistic understandings of sustainability which would be culturally neutral. However, over time there have been shifts in the scientific discourse: the imperative of 'maintaining the global resource base for future generations' of the earlier period has given way to a focus on the conditions for maintaining biological and socio-cultural diversity. Sustainable development has thus come to indicate the necessity of identifying local, ecologically and culturally specific forms of appropriate development.

This shift towards recognizing that sustainable development cannot be a standardized concept has been strengthened by research into 'non-equilibrium ecology' (Scoones 1999) and inter- or transdisciplinary knowledge integration (Nowotny, Scott and Gibbons 2001; Thompson Klein et al. 2001). With the general trend towards interdisciplinary approaches such as 'sustainability science', or the approach constructed by ecologists, ecological economists and anthropologists of 'integrating social and ecological systems' with a 'human-in-ecosystem' or 'dwelling' perspective (Berkes, Colding and Folke 2003), it has become increasingly apparent that attempts to define, explicate or model the concept of sustainable development and to construct indicators for it are simultaneously debates about changing knowledge for sustainable (rural) development.

Thus there is an important link between the concept of sustainable development as it is used here and our second key issue for research – knowledge forms and knowledge use. Our focus is on the actor-specific practices of knowledge use in rural development: how actors interpret, apply and combine abstract terms such as sustainability with their own knowledge about development and about natural resources and processes; and the socio-cultural variation associated with this. While the attempt to develop an interdisciplinary sustainability science supports the importance of recognizing local and regional differentiation in rural sustainable development, it tends to assume that analysing variety at the level of ecosystem research 'automatically' makes socio-cultural variety also visible. CORASON, on the other hand, inquired directly into socio-cultural variety (the dynamics of ideas, concepts and knowledge forms used by different actors that shape rural development processes) and this may be its main contribution to the ongoing debates.

The Bureaucratic Practice of Sustainable Development: Legislative Enactments and Policy Programmes from the Participating Countries

A summary of cross-national trends in the policy-guided practice of sustainable rural development can be found in the comparative report on sustainable resource management from CORASON (Bruckmeier, Tovey, Mooney 2006). Here we draw on that information base to describe some key trends country by country, in order to place the case studies which follow into a wider context. Politico-

administrative practices and strategies for sustainable development influence in many ways the practices of rural development that we observed through regional and local case studies, but they do not determine these, nor even create consensus among the actors involved in spite of their coordinating aspirations. They give rise to different and contradicting practices among rural actors. This is evident even at the level of studying the political 'input' itself – programmes for rural sustainable development – where the initiatives appear as de-synchronized: some countries start the policies rather late, and most countries have rather unclear goals and expectations.

Norway

Sustainable development is predominantly linked to environmental concerns, while social and economic dimensions are less specified. Nevertheless it is not a strong guiding concept, nor is the concept of sustainable resource management; objectives that may address both can be found under different headings, different national policies, programmes and laws. Agenda 21 is the most explicit policy framework, having been adopted in a National Agenda 21. There are also two specific laws which influence the process of sustainable development with regard to rural areas: the Planning and Building Act and the Nature Conservation Act. Sustainable resource management is not used as a guiding concept in policy programmes but it has an effect through such specific laws which influence resource use. A tentative conclusion is that in the Norwegian case, sustainable development as a general concept used at the national level should be differentiated from its concretization at local levels, which happens primarily through resource management strategies.

Sweden

Here, a strategy of sustainable development similar to that of the European Commission has been adopted, but the underlying approach of ecological modernization has been more explicitly spelled out, providing a clearer interpretation of the otherwise vague idea of sustainability. The Swedish strategy follows a centralized approach, leaving little scope for regional strategies, and the idea of addressing rural aspects and problems of sustainable development came rather late; the strategy is dominated by the rebuilding of industrial society, less by rural reconstruction. Since the 1990s several events have accelerated the process: the introduction in 1999 of a unified environmental code with 15 (later 16) national environmental quality objectives, the introduction of a national strategy for sustainable development in 2001, and a two-step formulation of a strategy for sustainable rural development with subsequent programmes for rural development for 2000-2006 and 2007-2013. Sustainable resource management is shaped by the policy of ecological modernization as an economic innovation process driven by the development of 'clean' and 'green' technologies and products in both industrial and agricultural production.

Germany

A national strategy for sustainable development which follows the 'classical three pillar approach' of social, economic and ecological sustainability has developed into a more specified programme with a mix of sectoral, thematic and geographical priority areas and 21 goals. The national strategy was set out in 2002 and reviewed in 2004, and an updated strategy was produced in 2005. As with the Norwegian strategy, at the national level the ecological component is dominant, and this is also visible in the pilot programmes which guide its implementation (programmes for energy production, renewable primary products, sustainable forestry, and bio-diversity management). Beyond this, the policy process is characterized by the presence of support institutions (governmental advisory councils) and by the formulation of regional strategies through the federal states (Länder). Sustainable resource management is framed through nature conservation policy; but as a process it is more influenced by spatial planning than by legislative acts.

Scotland

Scottish strategies are conditioned by those of the UK in general (which emerged out of criticism of the EU-strategy as incoherent) and claim to go beyond the 'simplistic understanding' of the three pillar approach. However they do not reject this model, but rather expand it, by including additional dimensions and by formulating more specific priority areas (sustainable consumption and production, climate change and energy, natural resource protection and environmental enhancement, sustainable communities). These priorities reveal similarities with other national strategies; and the definition of sustainable development used in UK and Scottish strategies is not far from the EU definition which echoes the idea in the Brundtland² report of intergenerational solidarity. Both the EU and UK definitions, with their core concept of 'quality of life', could be interpreted as prioritizing social sustainability as the dominant process. However, this is a controversial interpretation. The Scottish research for CORASON focused on the natural resource use and management components of sustainability, following the argument: resource use is the key to sustainable development, and UK/Scottish sustainable development strategy makes a clearer connection between sustainable development and sustainable resource management than is found in many of the other national strategies.

Ireland

The Irish strategy for sustainable development, similar in some respects to the German, is an example of a mix of sectoral, thematic and geographical priorities. In contrast to many of the other country-based reports, the Irish report identified the

² The Brundtland Commission, formally the World Commission on Environment and Development (WCED).

economic dimension as dominant and prioritized in the government's understanding of sustainable development. In relation to natural resource management, the report emphasizes the influences of EU policy and of national sectoral and regional development policies. While the national strategy for sustainable development itself does not do this, our research suggested a need to differentiate between sustainable resource management as environmental resource management (long-term strategy, future generations) and as economic resource management (short-term strategy, present generations), thus suggesting that these two dimensions of environmental and economic sustainability have different time horizons.

Portugal

The concepts of sustainable development and sustainable resource management have been adopted very late in Portuguese national discourses, political agendas and civil society. A national strategy for sustainable development was only completed (after several years of discussion) in 2005 and had not yet started to influence policies and resource management practices at the time of our research. These, therefore, need to be conceptualized within a framework of 'first generation' approaches to sustainable development where the idea took shape very gradually and primarily with regard to rural development: the agri-environmental measures introduced with the 1992 reform of the Common Agricultural Policy, specific nature and species protection directives from the EU (Birds and Habitat Directive, Natura 2000 Network), local Agenda 21 processes (these represented the first commitment, in 2002, to sustainable development in Portuguese public policy, but at municipal levels only) and finally the recent national strategy. This unfolding of the idea of sustainable development within public policy over time could nearly be described as a paradigmatic process of societal 'learning the way into sustainability': starting from limited linkages in sectoral policies (agriculture and nature protection) and at local levels (local Agenda 21) and growing into a nationwide strategy with a more holistic guiding idea.

Poland

Poland was one of the accession countries that formulated a national strategy for sustainable development rather early, in 2000 (the 'Poland Strategy of Sustainable Development 2025'). However, this strategy, along with other national policy documents and programmes which influenced it, has scarcely been implemented. All the policy documents describe a series of principles that specify or go together with the idea of sustainable development; these are primarily 'political rhetoric' and have not reached into the rural development process, rural actors and areas – they are not widely known or well understood. The way the ideas of sustainable development and sustainable resource management entered into Polish policy processes and discourses can be described as an 'importation of a strange idea' that has come with EU membership and is something like a price to be paid for

EU membership. Both ideas dissolve into a series of general principles which are meant to be observed in all policy sectors; however, the compatibility of these multiple principles is not discussed in the policy process.

Czech Republic

The Czech Strategy of Sustainable Development, adopted in 2004, follows the basic idea in the EU strategy of balancing the separate dimensions of social, economic and environmental sustainability. The process of adopting Agenda 21 started earlier. The national strategy is mainly understood as a long-term policy framework to comply with international commitments of the country as a member of international organizations. It was formulated – as in many other EU countries – through a broad consultation process that included many stakeholders, political, economic and other. It was also expected that formulating the strategy would be a way to improve the quality of life of the population and to strengthen the democratic process and politics by encouraging active participation of many groups. The practice of implementation, however, is difficult to describe – not only because of the short time since enactment of the strategy, but also because of the complex system of policy programmes and guiding documents supporting regional development. The impression is that – with somewhat less scepticism than in Poland – rural actors perceive sustainable development mainly as an idea that came with EU membership.

Hungary

Here too the recently adopted national strategy for sustainable development follows principles and ideas that have been formulated in EU strategy, again reproducing the three separate dimensions of social, economic and ecological sustainability. However, in contrast to many other countries, the Hungarian strategy is interpreted in our research as prioritizing the social dimension of sustainability over the economic and environmental; that the three dimensions are linked is nevertheless envisaged in the argument that social sustainability can only be realized through successful economic development and environmental sustainability. Whereas the strategy includes a number of different priority areas that justify the assessment that it is highlighting social sustainability (e.g. quality of life, equal opportunity, public participation), its weakness appears to lie in the lack of implementation up to now. Sustainable resource management is not specified within the broader context of discourses about sustainable development, but can be found in reference to practical aspects of resource use.

Spain

The policy context of sustainable development and sustainable resource management appears to be best understood here from a temporal perspective, emerging after the transition to democracy which was quickly followed by integration of the

country into the EU and the common European market. A national strategy for sustainable development was published in 2002 but never implemented, so that the EU considered it in a 2004 analysis as still 'under preparation'. The dilemma of implementing a national strategy is linked to the limited power of the central state, which has no legislative competence and plays more of a coordinating role in regional legislation. Sustainable resource management works as an umbrella concept to link many sectoral policies, specified through a series of laws guiding these policies. However, the complicated division of power and responsibility between the central state and the regions makes the policy process complicated – in the end, both sustainable development and resource management become confusing concepts which are mentioned in many laws but have no detailed implementation codes (as for example in the 2003 law for land management which does not include regulations to make the law operative).

Italy

The Italian national policy for sustainable development is influenced by EU and international policies, and also by Agenda 21. However, most national legislation still follows a conservation strategy more than one of sustainable development; we could say that the Italian national strategy focuses on environmental problems, which is also suggested by the 2004 analysis by the EU Commission which characterized it as a strategy to decouple environmental sustainability or resource use from economic growth. Also, the process of rebuilding the governance system with national, regional, provincial, municipal and territorial institutions is still incomplete, which tends to make the policy process inoperative and complicated. Although a national strategy for sustainable development has existed since 2000, the important legislation with regard to rural development is the legislation on protected areas and on sustainable use of energy from 1991. The traditional preservationist approach to natural resources found in most Italian law prevents the emergence of a more comprehensive and wide-ranging perspective that would be compatible with an evolving idea of sustainable development.

Greece

The Greek research for CORASON provided a problem-oriented analysis of the processes of policy formulation and implementation, emphasizing its deficits in practice, which can be summarized as: lack of overall planning and of provision of holistic development frameworks; bureaucratic prerogatives and biases; lack of coordination between administrative tiers and levels; inadequate translation of theoretical theses into local visions; lack of integration of sustainability concerns into sectoral policy designs; lack of adequate political dedication and will; lack of human and civil capacity at the local level; and inadequate take-up of innovatory solutions and modernization schemes. All of these deficits make a rural policy for sustainable development difficult, but not necessarily doomed to fail. Regarding

sustainable resource management, natural resources can be seen as important for Greek economic development policy, but there is no institutionalized land-use planning system, and the development of rural areas tends to be determined by conflicts over the use of natural resources rather than by planning.

It is much easier to summarize strategies for sustainable development than for sustainable resource management because the former have now been formulated as national strategies by all the countries concerned. Using the tentative classification suggested by the EU Commission in 2004 one can differentiate between:

- countries that follow a 'framework strategy'-model of sustainable development (Greece, Spain, Portugal, Poland, Czech Republic) and
- countries that follow an 'action programme'-model or mixed model (UK, Ireland, Sweden, Germany).

Beyond that, one can identify:

- a group of countries where, in spite of differences in the strategies, there is
 a dominant interpretation of sustainable development as environmental or
 ecological sustainability (Norway, Italy, Hungary according to the analysis
 of the EU, although the CORASON research interprets the Hungarian
 national strategy as prioritizing social improvement or social sustainability;
 Greece according to our research, although not according to EU analysis)
- countries where the classical three-dimensional approach is adopted (Germany, Greece, Ireland, Portugal, Spain, Sweden) and
- countries where additional dimensions are defined in the national strategies (a cultural dimension in the Czech Republic and Poland; community governance in UK/Scotland).

Whether all the three 'dimensions' of social, economic and ecological sustainability are covered in the strategies cannot easily be answered with 'yes' or 'no'. These three components are interpreted differently across the countries and in very few cases is it recognized that the issue is not just one of 'three or more dimensions', but of grasping a holistic view of sustainable development that takes all the important structural determinants from systems and subsystems in society and nature into account. Adding 'more dimensions' has been limited to adding a cultural dimension (which could be seen as already included in the social dimension), or introducing into the general formulation of a concept of sustainable development some specific institutions or action components such as communities. Few of the countries follow only a two-dimensional approach, identified by the European Commission in the Italian case (decoupling economic growth from environmental degradation). In some countries the legislative basis for sustainable development is more dominant, where the concept is translated into a number of specific laws. However, even then the implementation process is not necessarily more coherent,

homogeneous and consequential than in other countries for which sustainable development remains just a broad and vague category in policy frameworks.

How are Sustainable Development and Sustainable Resource Management Understood by Different Social Groups?

Our research shows that sustainable development is interpreted differently, not only by governmental and non-governmental actors, but also through differentiating practices visible at regional and local levels that could be called 'cultural traditions of resource use'. The interpretations of sustainable development and sustainable resource management that emerged from the research pose a number of questions: Who has and should have definition power for sustainable development and sustainable resource use — scientists or political actors? At what level of action (national, regional, local) does sustainable development become effective? How are the concepts of 'sustainable development' and 'sustainable resource management' substantially understood: as nature conservation, as focusing on natural resources, or as more than that? Who are the rural social groups that argue for a specific interpretation of both of these guiding concepts? Summarizing the trends provides some answers to these questions:

- The Hungarian research provided an example of a systematic analysis of the
 understanding of sustainable development by scientific, political and social
 actors at different levels. It shows that the use of the concept is splintered,
 clearly following actors' specific interests. Such splintered use seems likely
 to be found in most of the other countries too, although with different types
 and combinations of interest groups.
- The Norwegian research raised the question of whether the local level is adequate for the practical realization of sustainable development and resource management. Attempts to appropriate these concepts through local definitions and interpretations were found in other countries too (e.g. Scotland). It is evident that the national strategies are not necessarily decisive in the process of creating operationally relevant interpretations of sustainable development; this process must also go on at regional and local levels between the actors there. In many countries it has not started yet, whereas in others it has been somewhat slowed down by the presence of a formalized and standardized set of goals, criteria and indicators that dominate the national policy process (for example, the Swedish national environmental quality objectives).
- The most complex debate is about how to specify the resources and actors that should be involved in sustainable development and sustainable resource management. Ecological modernization tends to dominate how the implications of sustainable development for inclusion or exclusion are understood (and this is visible in many of the participating countries); there

- is not yet a clearly differentiated formulation of other, more critical variants of sustainable development such as might be found among environmental or other social movements.
- The social groups that argue for specific interpretations of sustainable development are not always easily identified from the research. It seems that rural groups in particular rarely articulate their interests and their interpretations directly in the public and policy discourses; this tends to be done for them by 'intermediary actors', whether established environmental associations (see Hontalez 2005) or 'hybrid' groups and institutions where governmental and non-governmental actors participate.

Public and policy discourses not only offer different interpretations of the concepts of sustainable development and sustainable resource management, they also differ over whether these are to be understood as distinct or interlinked, for example: whether the latter should be seen as specifying what the former means with regard to human resource use. To understand them as multi-dimensional concepts is already an advanced interpretation that is evolving only slowly and piecemeal in the countries concerned and has so far been mainly expressed rhetorically without fully taking into account the consequences of a holistic understanding of sustainable development. Whereas a more standardized interpretation of sustainable development is coming into use through the framing, coordinating and consensus-building processes found in international and governmental programmes and decisions, sustainable resource management is a concept that has developed with input from scientific knowledge and research (Bringezu 2002) and from NGOs (Hontalez 2005).

Linking sustainable development and resource management is difficult, in part because the two ideas result from different discourses that are not necessarily related to each other or help to interpret each other. Political discourses and their connected political-institutional structures and hierarchies tend to create their own, more selective and superficial ideas, for which sustainable development seems to be an ideal notion whose vagueness can be exploited. Where sustainable resource use is studied through local projects and rural development practices, and through interdisciplinary research (for example, Ostrom 1999), we find a more complex, differentiated and changing social reality in discourses and social practices.

Organization of the Book

Although the CORASON research aimed to produce comparative and condensed analysis across the countries involved, what we present in this book are analyses of case studies specific to individual countries and/or to regions within them. The chapters are intended to illustrate the different preconditions and contexts of relevance when rural development strategies are connected with strategies for sustainable development. They start, as mentioned earlier, from two overarching

themes, rural development with regard to diversification and innovation in rural economies, and rural development with regard to environmental and sustainability issues. The connections between these two themes, as illustrated in the case studies, allow us to identify and discuss emerging ideas, practices and strategies for sustainable resource management. In this introductory chapter we have provided a context for the country-specific case studies which follow, by summarizing the different approaches to, and interpretations of, sustainable development as rural development found in policy programmes and projects. In the concluding chapter we try to summarize the emergent practices and trans-political meanings which are found in the case study chapters and discuss their implications for formalized policy processes.

All but one of the countries participating in CORASON are represented in the chapters which follow (the exception being Spain); in one case, two chapters present studies from the same country (Poland), but carried out in different regions and by researchers from different institutions. The chapters present case studies that were originally carried out for different thematic work packages, to do with local food production, non-agricultural economy and innovatory rural development on the one hand, and nature protection and bio-diversity, land use and sustainable resource management on the other; but they are all constructed as discussions and reflections on the case study results under the two guiding themes of sustainable development and knowledge practices.

The texts represent a variety of approaches and methods, empirical findings and theoretical reflections. The initial country reports under the different thematic work packages (accessible at www.corason.hu) gave detailed empirical descriptions of the study areas and of the processes of interpreting and shaping rural development in relation to a variety of different thematic issues. That material has been reorganized and rewritten for this book to fit a more general perspective, pulling together the different aspects of the studies under the two guiding themes mentioned above. Different chapters have done this in different ways. Sometimes (as in the chapters from Sweden or Portugal) they have focused more on connecting the theme of sustainable rural development and its underlying knowledge practices in a paradigmatic case study that shows how integrating different knowledge forms (by way of successful local movements and strategies for rural development) can help to solve problems in rural areas in ways that approach sustainable development goals. Other chapters illustrate the problems of sustainable rural development by focusing on one core issue: renewable energy sources, as in the Scottish case, or nature protection in several cases. In other cases the findings are organized by structuring them around the general theme of knowledge practices (the Irish chapter) or by showing how processes of knowledge integration can be frozen by a bureaucratic and elitist policy programme for rural development as in the German and Greek examples. The themes of knowledge and sustainable development as discourse and organized process run through all chapters. What they all show, moreover, is the paramount reality of present rural development as a politically directed and expert-dominated process - whether

through the dominance of a bureaucratic administration, for which the German, Portuguese and Greek studies give different examples; through 'importation' of a new idea (sustainable development) as a consequence of recent EU membership, shown particularly in the Polish and Czech chapters; or through developing a conception of sustainable rural development from earlier ideas of nature and resource protection as the Norwegian, German, Hungarian and Italian chapters show.

The case study based methodology of CORASON, the focus on regional and local processes of rural development, the limited, although still large, number of countries participating in the project, and the restricted time for the research, together make it impossible to present a 'representative' picture of the processes ongoing in the transition to sustainability in rural areas in Europe. Rather we give an incomplete and illustrative picture, showing the manifold ways in which the transition is beginning, the significant contextual differences and the lack of temporal synchronization which shape the processes of building new rural realities. The open and fragmented picture which this provides seems in many respects to capture the very nature of the process, revealing it as permanent and unfinished, ongoing for a long time, and not consolidating into a final model that incorporates the interests and aspirations of all the main rural actors under a globally integrating idea of sustainable development. The chapters that follow can, hopefully, show some of the reasons why sustainable rural development remains an unfinished and multi-faceted idea

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