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Citizens and Governance in a Knowledge Based Society

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Final Report

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Preface

Although this Final Report carries the name of the overall co-ordinator and her research officer – and we take responsibility for any inadequacies therein – we would like to acknowledge the huge contribution to it which has been made by the intensive and exciting work done by those who co-ordinated the different workpackages, and indeed by all the members of the Consortium research team.

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Introduction

The material for this report has been drawn extensively from the Input Papers and Comparative Reports prepared by the members of the CORASON Consortium who undertook to coordinate the different workpackages. Each workpackage co-ordinator provided a comparative analysis of research done for that workpackage, based on the country case-study reports provided by the Consortium members in each participating country. This Final Report attempts to synthesise across all the Comparative Reports to provide an overview of the project's findings at a European level. However, first we introduce the project by outlining the key concepts and research methodologies used in it, and follow that with a summary of each Comparati8ve Report, in order to give sufficient detail so that readers from outside the project can follow the synthetic analysis fully.

Part I: Designing the Research

I.1 Introduction

The CORASON project studies knowledges and knowledge use in European rural sustainable development. Its objective is to identify and explain the dynamics of the variety of knowledge forms (expert and lay; ranging from the scientific, economic, administrative, and managerial 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.

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 a form of progress which is economically competitive, potentially more democratic, and can place less burdens on the environment and natural resources: how may this be influencing and shaping changes within rural areas? While rural areas are often seen as rich in natural resources for societal development, they are also often seen as deficit in knowledge. This research seeks to problematise the concept of a 'knowledge society' by placing 'expert' forms of knowledge (scientific and technological) within a broader understanding of knowledge that includes lay and popular forms of cognition. The second 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 groups. In CORASON we understand sustainable development as a knowledge-based set of practices, and one, moreover, within which expert knowledge has generally played the dominant part. Thus it seemed important to investigate the role which lay actors, and tacit, local or lay knowledges, can and do play in this process as it develops within rural areas.

From an ecological point of view, rural areas are key areas for the transition to sustainable development. With the sustainability policy switch, rural areas have gained new economic significance in the post-industrial and post-agricultural development phase. This is visible in the manifold reactivations of the countryside as a diversifying, locally based economy encompassing new forms of agriculture (including organic and non-food production), small-scale food processing, new forms of rural tourism, new forms of managing the complex natural resources which are found in or related to rural areas. In CORASON, these reactivations, their varying social and institutional forms, and their use of different forms of knowledge, has been the subject of case-study research, through which we seek to contribute to a comparative analysis of the emergence of European knowledge society, and to the provision of a sound knowledge base for policies to manage this transition.

In summary the central objective of CORASON, as laid out in Annex I, was:

- To identify and explain the dynamics of the variety of knowledge forms used in rural projects relevant to rural economic development, rural civil society, and the protection of rural nature

Associated with this are three further objectives:

- To open up the concept of 'sustainability' to examination in the context of rural development and the knowledges relevant to this
- To track the emergence of knowledge society in its varying forms across rural Europe, and the impact of these on social inclusion/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.

This part of the Final Report outlines how the concepts underpinning these objectives were elaborated over the course of the project, and how the objectives were translated methodologically into a series of research workpackages. Presentation and discussion of the central findings of the research are given in Part II.

CORASON's approach to researching rural sustainable development is somewhat distinctive. Whereas most studies have taken the relatively conventional approach of reviewing and assessing sustainable development as laid out in scientific and political discourses, CORASON's approach has been to try to catch the main interpretations of it which are 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 might imply for the organisation of sustainable rural development. While we have devoted considerable attention to the policy process, we are not using it as our dominant framework for the research; our interest is in broader and more pluralistic frameworks, including a broader knowledge-base than scientific and managerial knowledge alone, and a broader interpretation of 'rural development' itself as something which is not just a political-managerial process but includes a range of components: the social components of creating new sustainable livelihoods, for – and by – rural populations; the economic

components of redistributing economic and other resources to enable a socially inclusive development process; and the ecological components of 'navigating' the connected development of social systems and ecosystems.

Thus where much Sustainable Development research has emphasised evaluation, seeking to judge success or failure or to identify 'best practices', CORASON's approach is more descriptive, exploratory and explanatory. We believe our work contributes to the building of theory in the fields of knowledge, rural development, and sustainable development. And we hope to have identified some 'good practices' for rural sustainable development – that is, practices that are context-bound, that are 'good' because of the way they help to embed sustainable development in local contexts. While 'best practices' are identified with a view to making them transferable from one location to another, 'good practices' are not easily transferable: what is good in one context, as the Comparative Report for WP9 notes, needs to be continually reinvented in new forms for other contexts.

The CORASON research was carried out by a consortium of researchers from 12 European countries. These are drawn geographically from the European 'rim': East (Hungary, Poland, the Czech Republic), South (Greece, Italy, Spain), West (Portugal, Ireland, Scotland) and North (Sweden, Norway, Germany). They were selected following the 'Green Ring' hypothesis (see Granberg et al, 2001), and it is important to note that some 'core' European countries, in particular those with established agrarian histories and traditions (such as France) are not included in the study. The participating countries and institutions represent a variety of different social, political and historical backgrounds, lifestyles, economic capital and cultures; an important commonality is the significance which rural culture, and agricultural and agriculturally-based economy, continue to have within their political, cultural and economic lives. As the EU expands in members, and as European countries become more interconnected through shared development policy frameworks, cross-national networks, and transnational communication of ideas, a capacity to grasp both commonality and differences between European states can significantly enhance our understanding of how 'rural sustainable development' is being implemented on the ground and in development practices.

I.2 Elaborating the concepts

The conceptual framework guiding the CORASON research includes three main components: a typology of ideas of sustainable development, a typology of knowledge forms and practices, and a typology of actors in rural development. These were clarified and elaborated in the Input Paper prepared for WP 2 by Partner 2 (see Appendix 2), which identified the Guiding Question for the research as follows*: 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?* Putting this into 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 will produce a better understanding of how an emergent 'knowledge society' is being constructed and formed within rural areas in Europe.

I.2.1 (Rural) Sustainable Development

From the outset of the research, CORASON has recognised that 'sustainable development' discourse is characterised by variation and disagreement, both political and scientific. Sustainable development has been described, among others, as an 'essentially contested concept' (Jacobs 1999), and as a 'discourse coalition' (following Hajer 1995). At one level it can be seen as a 'battlefield of knowledge' (Long and Long, eds, 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, how knowledge sharing and integration is to be negotiated etc. At another level 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. In CORASON we refer to it 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 levels, so that it is subject to ongoing interpretation and re-interpretation of its 'central' meanings.

The concept of sustainable development is by now widely disseminated in many national and international policy documents and agreements. CORASON seeks to establish how sustainable development is implemented as a knowledge-guided practice today in rural Europe. National strategies for sustainable development, guided by international strategies as in EU policies and 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 Modernisation 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. At this stage of the report, therefore, we address the concept of sustainable development in general, although as we discuss in Part II below the CORASON research can contribute some elements to a more specific rural sustainable discourse in Europe.

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. 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 pre-defined concept and look for indicators to measure progress towards the predefined goals in practices, our starting point is to research the knowledges and 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 conceptions 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 mean identifying local ecologically and culturally specific forms of appropriate development. This shift towards recognising that sustainable development cannot be a standardised concept has been strengthened by research into 'non-equilibrium ecology' (Scoones 1999) and inter- or transdisciplinary knowledge integration (Nowotny et al 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 et al 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 in CORASON and our second key issue for research - knowledge forms and knowledge use. CORASON's 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 knowledge about development; and the socio-cultural variation associated with this. While the attempt to develop an interdisciplinary sustainability science supports the importance of recognising local and regional differentiation in rural sustainable development, its proponents tend to assume that analysing variety at the level of ecosystem research 'automatically' makes socio-cultural variety also visible. CORASON, on the other hand, inquires 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.

In sociology, there is no single commonly shared understanding of sustainable development which CORASON researchers could draw on. Some social theorists (e.g. Buttel 2000) link the concept of sustainability to that of ecological modernisation; others (e.g. Berger et al 2001) see sustainable development and ecological modernisation as two distinct conceptual frameworks which underlie environmental policy making in industrialised countries. In CORASON, we have taken a sociological approach to rural sustainable development as meaning researching the knowledge practices and actions of rural actors. Thus, we ask the following questions:

- How is the concept of sustainable development applied in political programmes for rural development, and understood by specific actors?
- How did the sustainable development discourse influence and help to re-direct rural policies and development programmes, in specific fields of action (e.g. land use management, biodiversity and nature conservation, food production, economic development and innovation, natural resource management)?

Our expectation was that in some fields and examples of rural development projects 'sustainable development' may be directly visible as an idea used to guide the direction of programmes and the activities within projects; in others, it may exist only as an implicit or background idea, or as an 'imported' concept, while in some it may not be present at all. We hoped to discover how far the idea of sustainable development has already influenced or changed rural actors' thinking and practices around rural development, and in what ways. Our intention is not to attempt to formulate a new theory of rural sustainable development, but rather to provide more 'dense' descriptions (Geertz 1973) and empirically grounded understandings of the practices of rural sustainable development as it becomes a slowly more concretised component of rural programmes, policies and activities.

I.2.2 Knowledge forms and practices

As has been suggested above, the distinctive contribution which CORASON seeks to make to debates around sustainable development and the future shape of rural Europe is through its examination of knowledge processes in rural development programmes and projects. Transference, dissemination and use of one particular variant of knowledge (knowledge as embodied in modern technology) is widely understood as a key element in the contemporary process of globalisation or global integration, along with the movement of goods, capital, and labour, and has hence become widely associated with notions of progress and development. This raises questions as to the extent to which rural areas in Europe could be said to be becoming 'globalised' in relation to knowledge transfer, the benefits this may be bringing to rural people and economies, and the possible losses which may result.

A core objective of the CORASON research has been to examine controversies between actors where what we have called 'definition power' (the power to produce a dominant interpretation or definition) in relation to Sustainable Development is involved. Contemporary sociological interest in knowledge, in its forms and varieties, and in the relations between knowledge and power represents 'a convergence between two bodies of work which have, to date, remained rather separate' (Leach, Scoones and Wynne 2005: 3-4). These are, on one hand, the field of science and technology studies, which has examined issues of science and technological practice, and risks of modern science. Through its critiques of conventional understandings of scientific knowledge, it has helped to develop new criteria for the sort of knowledge which is useful in actions for sustainable development, for example that knowledge, whatever its disciplinary origins, needs to be 'robust'; or that such knowledge can be used even when it is understood differently (or even insufficiently) by different actors. On the other hand are development studies, particularly the contributions from anthropology, which have frequently focussed on rural and agricultural issues, on the connections between technology and livelihoods, and on 'perspectives emerging from so-called "indigenous" knowledges in relation to modern expert-knowledge interventions' (ibid: 4). Where the first body of literature encourages analysis of 'expert' forms of knowledge, the second has popularised an interest in non-expert, 'lay' or 'local' knowledges (also often described as 'practical', 'traditional' or 'folk' knowledges), here understood not as a cognitive 'deficit' or

'default' but rather as a valid cultural challenge to the hegemonic scientific culture of (Western) modernity.

With further research, views of the part which local knowledges can play in development interventions have become more cautious. There is increasing recognition that because local knowledge has a locally-situated character, its potential for development can be ambiguous (Bicker, Sillitoe and Pottier 2004). It does not necessarily represent a comprehensive knowledge system; it may not be shared by all members of the local community in question; its use in development projects may not benefit everyone; and it may encourage practices which are neither socially just nor sustainable in the long term. (All of these points may of course also be made about 'expert' knowledges in development). At the same time, as Bicker et al emphasise, 'local knowledge reflects many generations of experience and problem-solving by humans around the world… Development agencies are becoming aware that such knowledge, whether it be of biodiversity and ecology, natural resources management, health and disease, education and urbanisation, is far more sophisticated than … previously assumed' (2004: xi). It is thus 'an immensely valuable resource' (ibid) which offers a foundation for new participatory approaches to development, even if the terms on which it is to be used in conjunction with science and other 'expert' knowledges in planning and decision making remain open to contention.

The development literature on local knowledge has emerged primarily from studies in the South or developing world. Can one usefully apply it to actors and communities in the 'North'? CORASON's approach has been to investigate this issue, rather than to assume an answer to it in advance; however, we had two reasons to justify exploring the use of such knowledge by actors in areas of rural Europe.

First, many recent discussions of local knowledge in developing countries emphasise that 'local knowledge' is dynamic rather than static (hence not best described as 'traditional') and that it is frequently found to incorporate ideas from science and other types of formalised expertise. For example Ellen (2000: 165), trying to specify the properties of 'local knowledge' in rural development, suggests that 'the knowledge used by local populations might well combine the insights of ancestral knowledge, practical experience, the knowledge of other neighbouring local peoples, regional scholarly traditions, or scientific or official knowledge acquired through, say, agricultural extension officers, government departments, television or whatever'. For this reason we prefer the term 'local' to that of 'indigenous', and we approach 'local knowledge' as a knowledge characterised primarily by local situatedness (embedded within and generated out of the problem-solving interests of specific groups of people in specific local settings), not by simple opposition to scientific and technological expertise. Within CORASON, with its specific European research areas, the components of 'local knowledge' most important for rural development and the rural sustainable discourse can be identified as:

- knowledge from their own experience, held by rural producers and resource users

- knowledge that has been transmitted to them from earlier practitioners in local production processes (seen as of similar quality to knowledge derived from their own experience),
- and knowledge that rural actors and inhabitants receive from 'external' sources (mass media, scientists etc) but which they use in specific locally-adapted ways.

Second, we argue that rural areas of Europe experience many of the same 'problems of development', and interventionist pressures to develop, as those of rural areas in the developing world, making the development literature on knowledge dynamics and participatory development practices highly relevant to research into their situations. Much European rural development policy, in fact, has already built on ideas and findings from research conducted in the global South. Finally, since CORASON approaches sustainable development as a 'knowledge-based set of practices', this literature offers a useful way of deconstructing the different types of knowledges on which practices for sustainable development may be based, in different settings and at different levels of power, regulation and government.

To the two concepts of 'scientific' and 'local' knowledges which come out of the convergence of the two literatures above, CORASON decided to add a third type: 'managerial' knowledge. This type of knowledge has received attention in, for example, ecological research into alternative styles of management of biodiversity and natural resources; it also emerged as important in earlier research by some CORASON participants which addressed new actors in European rural development and their knowledge and power bases, broadly conceptualised as 'intermediate actors or 'the new project class' - new 'epistemic communities' or knowledge-coalitions that control the use of the financial resources for rural development provided by EU and national programmes. 'Managerial' knowledge can be seen as a second form (scientific and technological knowledge being the first) of 'expert' knowledge; but it can also often be found as a blending of scientific and local knowledges and may be shaped as strongly by past experience in management practice as by formal managerial education. Hence it is probably best treated as intermediate between (scientific) 'expertise' and 'local' knowledge and different from both. Alternatively, a more critical approach contests the assumption that science is the only form of valid knowledge; from that point of view, all three forms of knowledge can be regarded as 'expert' knowledges, which differ only in the processes through which they are generated and constructed, transmitted, validated and certified. Then the key difference between these different types of expertise about the social and natural worlds lies in their different levels of recognition, status and power within societies attempting to 'modernise' along Western lines or (in the European case) to transform themselves into a 'knowledge society'.

This typology of knowledges - scientific/technological, managerial, and local - was developed as the starting point for CORASON research into knowledge dynamics within the European rural field. It was expected that empirical findings might encourage its revision, in a number of different possible ways: e.g. introducing the 'managerial knowledge' type might turn out to be less useful than staying with the older dichotomy

between 'expert' and 'lay/local' knowledges; the typology might need to be broadened by the inclusion of different sub-types of expert cultures; or, indeed, the typology might need to be abandoned in favour of an approach to all knowledges as 'hybrid' discourses with different criteria of excellence and expertise.

One additional body of literature which became important to the CORASON project as the research developed should be mentioned here: this is the debates around the concept of ‘learning regions’, ‘social capital’, or ‘associational economies’ which is discussed further in the Comparative Report for WP8 (see Appendix 3). This has helped to develop our thinking over time in a number of ways. Perhaps the most important is that within these debates, the significant forms of knowledge under discussion are distinguished as ‘tacit’ and ‘codified’ knowledges, rather than as ‘expert’ or ‘lay/local’. ‘Tacit knowledge’ can be identified as a form of practical know-how which is transferred by example rather than formal teaching; it is seen by many contributors as something which plays an important role in facilitating ‘the interpretation of ideas, learning in doing, the sharing of information, and organisational agility’ (Amin and Thrift 2002: 61), and hence aids economic adaptation and innovation within enterprises, and within clusters of enterprises in a region. It can therefore be used to explain development within rural as well as more industrialised regions. Some writers have argued, indeed, that tacit knowledges, circulated through local social networks, offer a comparative advantage to rural regions to transform themselves into ‘learning regions’, and they suggest that the rapid diffusion of codified knowledge through globalisation (in particular the universal spread of science and technology) puts a premium on those areas where tacit knowledge networks still survive. Others argue that innovation is more likely to be found in milieu which have a rich resource of ‘codified’ knowledges (primarily urban regions with their clusters of universities, research institutions, business networks and so on); or that economic innovation and competitive advantage is more likely to develop where tacit and codified knowledge are able to work in combination. In CORASON, these debates are touched on in the Comparative Report for WP8; the distinction between tacit and codified knowledges, and the idea of knowledge networks, also emerge as highly informative tools to analyse knowledge processes in the Comparative Report for WP6.

I.2.3 Rural actors and rural development

There is little theoretical debate to be found in the literature in relation to classifications of 'rural actors'; CORASON research started from an empirically based classification of actor types (Tovey 1998) which was further elaborated to distinguish between

- actors who were rural by origin, work and lifestyles, and/or knowledge (including professional groups such as farmer or fishermen associations, and rural social movements). These were contrasted with 'non-rural' actors (using the same criteria of origin, work etc) such as urban consumers of rural resources, seasonal residents in the countryside, commuters, and urban-based movements such as most environmental movements
- managers and bureaucrats in rural development and rural businesses (including political managers with decision-making power particularly at local government level; administrative experts such as planners, consultants, natural

resource managers, project managers; and owners/managers of businesses relying on rural natural and/or social resources such as food, energy or rural tourism companies). Many of these actors can be included in the category ‘project class’ (Kovach and Kucerova 2006).

- 'residual actors' i.e. those actors who do not fit into the above categories but have some role or influence in sustainable development projects or discourses for rural areas (including, for example, the churches, religious organisations and groups; journalists and the media; and the military which can have a dominant role in determining land use in strategically important locations such as coastal areas).

This preliminary classification helped to identify the range of actors which might be included in CORASON case studies. It aimed in particular to ensure the inclusion in our research of *rural civil society* and civil society actors, which were anticipated to be one particularly important resource for the transmission and use of 'local' forms of knowledge. It also implicitly reflects one answer to the contentious question 'What/who is rural?', which would be reflected on further as the research proceeded and (in particular) as the diversity of understandings of 'rural development' and 'rural sustainable development' across the participating countries became clearer.

An initial distinction may be made between two apparently diametrically opposed understandings of 'rural development' in Europe in this context. On one hand, rural development discourses may implicitly or explicitly assimilate this into the discourse of regional development and regional cohesion; here, the emphasis is on equalising incomes and access to services between rural and urban areas, through the provision of accessible jobs, schooling and health care, for example, for rural populations who are often defined in primarily demographic terms (as 'sparse' or small-scale settlements). Although guided by an important orientation to equality of citizenship, in this case identification of what may be distinctive to 'the rural way of life' receives scant attention and indeed the forms of development proposed may sometimes be inimical to the maintenance and development of 'the rural' in that sense. (Equally, most sustainable development policy documents and discourses do not address the possibility that rural areas might be encouraged to persue a path towards sustainability which is specific to their rural situations). On the other hand we can find development discourses which are centred on the development of rural resources (understood broadly as natural, social and cultural) in ways which may help to maintain distinctive rural livelihoods and lifestyles, but which may not necessarily attach so much importance to equality of citizenship. CORASON research aimed to investigate the dominant and the diverse ways of understanding 'rural development' found in policy discourses at different governmental levels in the different countries included, and in the discourses of those actors engaged in its practice at local levels. To develop these ideas, we drew initially on available discussions of rural development in Europe, in particular by Marsden (2003) and by Van der Ploeg et al (2000, 2004).

Three conceptual models have been developed by Marsden to make visible the changing shape of European rural development and development discourses over the past three

decades: the agro-industrial model, the post-productivist model, and the rural development model. In Marsden's discussion, these different models are historically situated, representing an account of sequenced change over time. Thus the agro-industrial model refers to the post-WW2 period when rural policy was dominated by an agricultural modernisation perspective, prioritising increased food production to be achieved through technical upgrading, efficiency, and economies of scale. It fell into crisis from the late 1970s as concerns about the environmental and food quality impacts of this type of modernised agriculture emerged and developed. The post-productivist model describes the new phase of European rural development since the 1990s, in which it is argued consumer interests and concerns came to dominate debates on the future of the countryside, seen increasingly as a 'public good', while productive, particularly agricultural, uses of it became marginal to public interest. This model has been influenced by the parallel growth of a discourse of sustainability, and has been described by some as 'the new orthodoxy' (Evans, Morris, Winter 2002). It is now confronted by a new, if not yet fully elaborated, model of rural development (or 'New Paradigm RD' - Van der Ploeg et al 2000, 2004), which seeks to re-centre productive uses of nature and rural livelihoods, and to find new paths towards sustainable forms of agriculture which the post-productivist model, with its emphasis on consumer perspectives and environmental conservation, did not address. These new paths include a focus on agro-ecology, local and regional institutional reconstruction, and the use of ideas from ecological modernisation as a broad guiding framework. This conceptual model shares with the agro-industrial one a view of agriculture as central to the distinctiveness of rural areas, but differs in that it locates agricultural work within a diversified rural economy which is shaped around a dynamic of integration, in line with the introduction into national rural development policy arenas of the idea of Integrated Rural Development through the implementation of EU Rural Development Regulation 1257/99. The rural development model promises a more 'holistic' vision of rural development through its elaboration of the concept of 'rural livelihoods' as the key to a sustainable rural future.

For the purposes of CORASON, we did not feel that it was useful or necessary to treat these conceptual models as representing an unfolding of a historical sequence of change in discourses about rural development in Europe. European rural space is not uniform, culturally, ecologically or politically, in a way which would make that possible. Rather, we treat them here as quite abstract ideal types, which can co-exist and be combined in different ways in different countries at different points in time. In some countries, moreover, one or other of them may not be in discursive use to any great extent; questions have already been raised about their applicability in countries such as Italy (Fonte 2001), and we expected that in the East European countries included within CORASON they may also be incompletely realised. For CORASON the key questions here are: how, and whether, these very general models are interpreted, used, applied or instrumentalised within the rural programmes and projects found in the different countries in the research network, at this point in time; and whether or how connections are made between them and debates about sustainable development. In effect, we seek to use them primarily as a way of interpreting and typifying the understandings of the future of rural society held by rural actors who are engaged in projects for rural development in our varied regions and localities of study. Through this we can make more visible the

differentiation, fragmentation and pluralisation of European rural development processes, and the many variants in ideas of rural sustainable development that compete with each other in the knowledge practices of different rural actors.

Combining the elements outlined in Sections I.2.1, I.2.2 and I.2.3 above, CORASON has developed a specific approach to the practice (strategies and discourses) of rural development: to identify the different bodies of knowledge that are mobilised by actors under the guiding concept of sustainable development in attempts to change rural development processes, and to trace the dynamics (assimilation and incorporation, negotiation, conflict etc) of the encounters between them within particular projects for rural development. Through this we hoped to yield more empirically grounded typologies of rural sustainable development, knowledge practices, and rural actors as an outcome from the research. The methodology used to further this aim, and the rationale for the organisation of the work in the 7 'empirical' workpackages (WPs 3-9), is discussed in Section I.3 below.

I.3 Elaborating the methodology

I.3.1 Research design and organisation

Annex 1 set out not only the central research questions with which CORASON would be concerned, but also an initial outline of how the research into these questions would be structured (see I.1 above). It was to take the form of 7 'empirical' workpackages (WPs 3-9), each of which would address an issue or theme seen as central to understanding rural development and practices for sustainable rural development across Europe today. The identified themes were as follows: land use, regional and spatial planning; demographic conditions and the state of rural civil society; management of nature protection and biodiversity conservation policies and practices; local food production and distribution; conditions in the non-agricultural rural economy; innovation in rural development; and the use and maintenance of natural resources for livelihoods in rural areas. Synthesising across the findings under these themes would enable us to develop some general conclusions about key collective actors currently prominent in rural development projects, about the vision of rural futures and the discourses of development and sustainable development which these actors produce and draw on, and about the diversity of knowledge types and sources which they carry, invoke or transmit.

More specific information about each of the WPs concerned and how they attempted to address and realise these issues through a focus on their specific theme is given below (Part II.1). In general, it was expected that the synthetic analysis would provide answers to the following set of general questions (as elaborated in WP2):

- what can be found in the relevant scientific discourses (in particular in relation to nature and biodiversity conservation) about rural sustainable development?
- What discourses of rural sustainable development are used in policy programmes and documents about rural development within the different countries and regions?

- How do different rural actors use the concept of rural development or of rural sustainable development, and for what purposes?
- What knowledge production processes can be identified in all three above (who produces the knowledge which is regarded as having 'definition power' in debates around rural development?)?
- What processes of knowledge negotiation, debates or controversies, can be identified?
- What knowledge reception processes can be found - who receives knowledge form whom, who refuses to use certain kinds of knowledge, etc?
- What knowledge application processes are evident in rural development or rural sustainable development efforts - how is the application of knowledge organised, in management of rural (sustainable) development?

These general guiding questions for the research help to clarify further how sustainable development is seen in CORASON as a knowledge-based set of practices of different rural actors; and how, in turn, that represents 'sustainable development', not as a scientific concept which can be give definitive meaning in advance of the empirical research, but as a 'platform concept' which is subject to differential interpretation, communication, and negotiation among actors (see above, I.2.1).

However, not all these general guiding questions apply in exactly the same way to each Workpackage. It was recognised from the outset that while WPs 5-9 would attempt to address these questions through research into specific cases and situations where rural (sustainable) development was being attempted by particular groups of actors (the 'projects' which formed case-studies in each national report), WPs 3 and 4 would be more oriented to providing general background information which would help to situate case-studies within a broader national or regional context. Information on spatial and land-use planning and on the demographic and civil society situation of rural areas in each country was therefore collected first, to be used as a basis in interpreting the case studies in later WPs.

Each of the 7 workpackages was progressed according to the same formal organisational model. First, an Input Paper was prepared by the WP co-ordinator, setting out the issues to be addressed by each national research team, and the information to be provided. Each team then prepared a national report (but note that the Norwegian team, with the agreement of the Consortium, did not prepare national reports for WPs 7 and 8), which was returned to the co-ordinator within a set time period and which formed the basis of the compilation by the co-ordinator of a Comparative Report on the workpackage theme. (These Comparative reports are included in Appendix 3 of the Final Report). However despite using the same organisational structure at a formal level, the thematic information generated by each workpackage is not strictly comparable. While the national reports for WPs 3 and 4 provided considerable information (on spatial conditions, transformations and planning, and on demographic conditions across rural areas) on the national level, and correspondingly less on the local level, those for WPs 5 to 9 moved in the reverse direction, with an increasing emphasis on activities and practices at the local level and a decreasing emphasis on national-level conditions.

I.3.2 Selecting the research subjects

To explain the distinctions made here between 'national' and 'local levels', we need to elaborate more fully on the methodology developed for the project. CORASON research began with a spatial focus, but as we emphasise below, this was seen as an instrument for accessing key research targets, not as an end in itself. At an early stage, all the partners were asked to identify a specific region (or in some cases, regions) within which their empirical investigations would be concentrated. This became known as their RRA (Regional Research Area). The chosen RRA should coincide with an administrative region, as defined by national governments or by the EU; this was decided because data and public statistics would be most easily found at this level, and many of the relevant actors are likely to be organised at regional levels. We were aware, however, that administratively defined regions may not always coincide with cultural regions or ecological systems, so that it might sometimes be necessary to expand the research beyond the administrative boundaries or to recognise systems that cover a differently shaped territory.

A regional focus was agreed on the grounds that the types of rural areas found within a country and their demographic, economic and even in some cases cultural situations generally vary widely; given the short period of time available for the research in CORASON and the limited resources available, the best way to address this variance appeared to be to limit its impact as far as possible. Thus, partners were asked to identify a specific region characterised by relative homogeneity in the rural conditions found there. This region did not have to be 'typical' of rural areas in the country as a whole, but rather to be explainable as itself a more or less distinct type of rural society and economy.

The chosen RRAs varied considerably in size (from 23,000 to 2,000 sq. km, generally corresponding to NUTs 2 or 3 in EU terms) as well as in other (physical, economic, demographic) characteristics. Many also show a quite marked dualism between urban and rural areas, with quite different economic and demographic processes. However, comparability between RRAs was not a goal of the research process; their primary use is to identify the physical and administrative framework into which the more local case studies which CORASON addresses can be inserted.

It can be seen from Table I.1 below that some national teams chose more than one RRA as their region of research. This primarily occurred when there was more than one research team, situated in different regions, working within a particular country (e.g. Italy, Poland). In other cases, however (e.g. Hungary, Czech Republic) two contrasting RRAs were selected in order to expand the possibilities of comparison between them, and in these cases the lead researcher was already familiar with and/or had been previously involved in research into at least one of the chosen RRAs. Such pre-existing familiarity was regarded as important to contain the amount of initial exploratory research which would otherwise be required with two distinct RRAs.

Table I.1: RRAs chosen by each national team

Country	RRA name	administrative character	Demography, economy	rural character, physical type
Ireland	County Tipperary	4282 sq. kms NUTS 3, 2 local govt bodies - North & South Tipp. county councils	Growing towns, previous strong farm area, declining farmer nos., pop. density = 35/sq.km	Beef, milk and sheep prodn. on family farms; between agri-modernisation and post-productivism
Sweden	Vastsverige,	29,417 sq. kms; NUTS 2, Western Sweden	1.5 million pop, concentrated on coast; pop. density 60/sq.km	Coastal and archipelago; imp. fishing & food productn region but most of pop. non-agricultural
Hungary	(1) Jaz-Nagykun-Skolnok county	5582 sq. kms; Hungarian Great Plain area	Pop. density 75 per sq. km; declining pop; 21% of land uncultivated	Dry steppes, long traditions of animal husbandry; many protected areas
	(2) Zala county	3784 sq. kms, West Hungary	Falling pop. density (77 per sq. km in 2001). Predom. ag, & food processing but high tourism around Lake Balaton in east	Hilly and wooded area, declining ag (esp. livestock); some resource over-exploitation.
Spain	Communidad Valenciana	11,393 sq. kms; NUTS 2	Pop. density 95/sq.km; intensive urbanisation on coast (esp. service sector growth), falling pop. elsewhere; underdevel. ag.	Mountainous region, geographic isolation

Poland	(1) Malopolska	15189 sq. kms; High pop. density (212/sq.km), urban to rural migration	Predominantly agricultural, diversification being encouraged	Upland and mountainous, high value landscape
	(2) Lodz region, Central Poland	18219 sq. kms; pop density 145/sq. km	Industrialising &, urbanising; average sized farms , traditional orchards	Deforested lowland, low biodiversity, scarce natural resources
Italy	(1) Calabria	1,508 sq. kms , NUTS2; pop. density 133/sq. km.	Agriculture (generally small-scale), increasing tourism	Mediterranean mountainous area; protected Park area
	(2) Rovigo & Ferrera proinces (Po Delta, N. Italy)	2,631 sq. kms ; pop. density 131/sq. km.	Ag. & fisheries, services, industry; less dynamic economy, unemployment, pop. decrease	River delta, irrigated agriculature, water management a key issue
Greece	Karditsa prefecture, Thessaly	2,636 sq, kms NUTS 2; pop. density 49/sq. km.	Large but falling agricultural sector; expanding.touri sm and agro-tourism.	Polarisation betwn east (low) and west (mountainous); fragmented holdings, low ag. productivity
Portugal	Baixo Alentejo,	8,544 sq. kms S-E Portugal NUTS 3; 13 municipalities. Pop. density 16/sq. km.	Depopulation and land abandonment, new rural activities (tourism, services)	Traditional ag. undergoing transformation (wheat and livestock prod.). Rich in biodiversity

Scotland	Skye & Lochalsh	39,050 sq. kms Highlands and Islands region. Pop. density 9/sq. km	Total pop. 12,000, steadily increasing; crofting, tourism, IT-based and other new industries	High value environment; bilingual area
Norway	More & Romsdal county	14,590 sq. kms; pop. density 17/sq. kms	Ag., industry, services; declining support for ag. production in this area	Remote mountainous, high value landscape
Germany	Mecklenburg-Vorpommern	23,173 sq, kms North-eastern region (formerly East Germany); pop. density 76/sq. km.	Classified as 'less developed'; declining pop; fishery and shipyards; post-Communist transformation	Coastal region, high biodiversity interest; nature protection
Czech Republic	(1) Jihocesky region, South Bohemia	10,055 sq. kms; pop. density 62/sq, km.	history of recreational use, marked decline in ag. sector	Dominated by dry grasslands, large forests
	(2) Ustecky region	5,335 sq. kms; pop density 154/sq. km.	Densely popd. region above national average; history of industrialsatn (coal, chemicals)	Intensive ag. in southeast (hops, vegetables), dry grasslands

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Note: all pop. densities based on 2001 national figures.

A second, equally important, consideration in choosing the RRA in each country was that it should be the site of a number of rural development 'projects' or programmes which would be of interest to CORASON in attempting to answer the set of general questions outlined above. Thus while the first step for the participating partners was to identify a manageable RRA within their country, the second was to identify one or more 'local implementation areas' or LIAs which were the site of such projects or programmes.

(LIAs might be variously defined in spatial terms; in some cases they might be identical with the territory of a local community or municipality - NUTS 5 , in EU definitional terms - but not necessarily always so. The LIA indicates the area covered by a particular project or programme for rural development). This would enable a much closer investigation of rural actors, their development discourses, and their knowledge-based practices. In effect, it was these local development initiatives which were to be the core focus of the CORASON research, with broader conditions (demographic, economic, civil and cultural) to be treated primarily as explanatory context to the findings observed in these initiatives.

It is important to emphasise again here that CORASON should not be understood as an example of rural research at a regional level, or even at a 'local' level if that is understood spatially. It did not set out to draw comparisons between rural regions in Europe, but between knowledge dynamics in different development settings. CORASON aimed to research actors and their knowledge-based practices, within definable development projects or programmes; entry to these actors through first a regional and second a local spatial identification process was a way of ensuring, first, that relevant projects or programmes could be located for study, and second, that these would not be studied in isolation from their broader socio-economic and cultural contexts, which might have the effect of rendering them unintelligible, or encourage the drawing of unreliable conclusions.

I.3.3 Research resources and methods

Given the short timeframe (initially 2 years) for the research, it was agreed that this would make use as much as possible of already existing resources. Where prior studies had been carried out, by team members or others, of particular projects or rural areas, a secondary analysis of this material should be made to inform the CORASON interpretation of them. Pre-existing quantitative data, such as census and other public statistics, would be used to elaborate the broader rural context within RRAs and LIAs. Documentary analysis (of policy documents and programmes at national and local government levels, relevant debates in the public domain, project reports, mission statements etc.) would be central to the research methodology, and this was then to be completed through new fieldwork, in particular qualitative interviews with key informants in local development projects and in the local or regional administration.

We may summarise the research methodology used in CORASON as primarily a *case-study* approach. The 'cases' chosen for study ranged from what may be called 'programmes' for rural development (such as LEADER, or various national or local government programmes) studied in relation to their implementation at a local level, to 'projects', understood as local development activities which may or may not be part of larger programmes but which persue a particular end or goal (for example, the re-localisation of food distribution networks at the local level, or the establishment of an innovatory economic activity in the locality such as a windfarm or a rural tourism trail, the development of educational or resource centres, or an organisation set up to manage a more sustainable use of local natural resources such as local forests). Some projects

might be formally organised, with a clear budget and financing mechanisms, while others might be relatively informal. While 'programmes' are politically created and defined, 'projects' were expected to manifest a strong input from civil society, such as local 'grassroots' actors, community 'leaders' or social movements operating on a national or regional level.

Criteria were agreed in advance for the choice of the cases to be studied:

- in each country, they should when considered together cover all the thematic areas of WPs 5-9 (some projects might have a range of different goals or functions, in which case they could be used in more than one WP);
- they should include different rural actors and groups important in local development efforts (.g. both agricultural and food related projects, and projects for non-agricultural economic development);
- they should include examples of non-governmental and non-publicly-funded projects to reflect initiatives by NGOs and other civil society actors in rural development, as well as projects created under former or present programmes of rural development which have been implemented at regional levels.

The use of a case-study approach in a cross-national comparative study is sometimes regarded as contentious. The CORASON research generated a huge volume of case studies - around 80 in total, allowing that most workpackages would produce at least 12 (up to 15 where 2 different RRAS had been selected in a country), that in some RRAS more than one case was studied, but that sometimes the same case was reanalysed from different points of view for different workpackages. Writing the Comparative Reports for each workpackage called for considerable reflection and discussion within the Consortium on how best to use the cases studied to develop a cross-national comparative analysis. Ragin (1987) has argued that comparative qualitative research using case studies can provide illuminating findings as much as, or more than what he calls the 'variable-oriented' approach of quantitative comparison. Whereas the use of quantitative methods such as multivariate statistical analysis discourages researchers from addressing social phenomena which are historically or culturally distinctive, Ragin argues that 'case-oriented studies' allow a more holistic type of comparison which is sensitive to complexity and historical specificity, and more concerned with human agency and process over time. Given CORASON's focus on knowledge dynamics within projects or programmes for rural development, and our awareness that both what is considered 'rural' and what is understood as 'sustainable development' is strongly shaped by differences in culture, historical experience, and economic and environmental conditions, Ragin's 'case-oriented approach' seemed best suited to capture the situated processes of knowledge exchange, transfer, application, conflict and resistance in which we were interested. Nevertheless, this does undoubtedly create problems of comparability and generalisation. In producing a comparative analysis of these cases, we have not followed the strict approach, based on Boolean logic, which Ragin advocates (our interest in researching complex processes, rather than identifying causal connections, made that inappropriate); but we have tried to incorporate his more general recommendation of 'finding a middle road between generality and complexity' (1987: 168), and have tried to

avoid the danger that he points to of allowing the analysis to be over-influenced by 'a few favourite cases'.

Part II: Outcomes of the research

II.1 Results from the Workpackages

Below we present a summary of the findings and arguments developed in each Comparative Report

II.1.1 WP3 - Land Use Management overview

The work for this WP was co-ordinated by Partner 4 (the Spanish team), who also produced the Comparative Report for it.

Changing patterns of land use, and attempts to organise and manage these through the planning process, are central to understanding developments within rural economies and (to the extent that they bring about change in the composition of local communities) in rural civil society. In examining these issues, WP3 had two basic aims: (1) to provide a picture of the main trends in rural land use and in spatial processes found in the RRAs over the past two decades; and (2) to develop an analysis of some key features of the land and spatial planning processes in the countries and regions concerned, particularly in relation to how and whether sustainable development appeared to be emerging as a goal within these, and the types of knowledge which appeared to be dominant within them. Thus, WP3 was intended to provide primarily contextual data about processes and practices in relation to land use within which later case studies could be placed. However, where national research teams could identify local examples of rural action for sustainable change in land uses or spatial or territorial management, they were encouraged to include some analysis of these in their reports.

Secondary data analysis was a key methodology - using country and/or regional level statistics, and of planning and policy documents influencing the management of rural space at European, national and regional levels. In addition, a number of case studies were analysed. These included: an attempt, involving regional administrative authorities, environmental NGOs, and local residents, to revitalise an area in the Czech Republic previously used for military purposes by encouraging more intensive land use; a plan drawn up by a municipal council in Norway, in consultation with local professional groups, to implement more sustainable forms of development in an area under heavy tourist pressure; the creation of an artificial lake in Greece to add tourism to a predominantly agricultural local economy; the workings of the Community Forum (representative body of local civil society associations) within South Tipperary County Council (Ireland) in relation to physical planning processes; and the 'Costa Agenda 21' action in the Po Valley in Italy which brought municipal councils, experts and local

actors together to find more sustainable forms of development for the coastal area. (Please see Appendix 3 for further information on the full range of case studies used).

Key findings from the research for WP3 are outlined below, organised under three headings: main trends in rural land-use; Sustainable Development as a goal in land-use planning; and, knowledges in the planning process.

1. Main trends in rural land use in the RRAs

The rural localities studied in CORASON are very diverse, in terms of natural features, land ownership structures, and economic situation. Trends in rural land use are shaped by land-ownership structures, which in turn can either constrain or enhance possibilities for rural development. All the participating countries have gone through agrarian reforms in the recent or more distant past that have tried to bring about a more equitable structure of landholding and more efficient agrarian activity, through generally with disappointing outcomes. The RRAs include both areas where large landownership predominates, and those where small holdings are more typical. In nearly all the areas (an exception being one of the Polish RRAs) , there is an evident process of concentration of agricultural landholding occurring. Economically, there are some rural areas which have been able to consolidate a quite dynamic economic fabric, often combining a competitive agriculture with industries to transform primary products, and a strong service sector. Others, however, are experiencing a crisis in agriculture and have been unable to develop viable economic alternatives.

Despite these diversities, the Comparative Report concludes that across Europe we can see a growing trend in recent years to promote non-agrarian over agrarian uses of rural land. In particular, land dedicated to agriculture is gradually reducing in all CORASON research areas, and the diversity of crops and animals being grown has reduced; remaining agricultural land use is generally becoming more intensive, despite the implementation of agro-environmental measures. In a number of RRAs, forested land has tended to increase at the expense of farmed land, partly due to a rising interest in green spaces for leisure, and partly to the abandonment of farming. An evident change in land use is also the important increase in protected areas, particularly in the surface area of National, Regional or Natural Parks; even in cases where these include some commitment to local rural development in their remit, they also always introduce restrictions on certain types of land use and rural development which can generate problems with local communities. Finally, recreational land uses (e.g. golf courses), use of rural land for house construction (especially in areas where aesthetic values are high but conditions are not favourable for intensive agriculture or industrial development), and use of land to meet urban needs not linked to a post-productivist vision (e.g. for energy generation or the storage of waste) are all on the rise in rural localities.

Traditional land uses and activities, then, are disappearing, or are being reshaped according to new ideas and demands, generally strongly reflecting expectations about the rural held by urban actors. Perceptions of the rural landscape and its functions are largely shaped by a 'post-productivist' model for rural development which prioritises cultural and aesthetic values over economic. Nevertheless, primary sector activities (cattle and crop

production, fishing, forestry) are still the main uses of land in rural areas, providing incomes for rural inhabitants and maintaining diversity in rural landscapes and ecology. Thus, the report argues, planning for rural sustainable development must find a balance between preserving and enhancing the rural environment, and achieving sustainable rural livelihoods. This objective is explicitly stated in most national and regional policy statements for rural development; nevertheless confrontations remain frequent between actors who want to defend the conservation of rural spaces as they are, and those who see them as 'changing places' which should be given a chance to develop even when this implies changes in topography, landscapes and land uses. This has emerged in the national reports as a 'hot topic' in many of the RRAS (e.g. Spain, Ireland, South Italy, Poland, Greece). The Report suggests that such problems may be exacerbated by the enthusiastically disseminated idea of 'multifunctionality' of rural areas, which can promote a model of segregated land uses associating different functions with different territorial spaces. Thus in some parts of Greece, Hungary or Spain for example, environmental reserves appear alongside intensively farmed land, rather than promoting a more integrated and balanced management of nature and natural resources across all land uses and functions.

2. Sustainable Development as a goal in land-use planning

Land use planning is understood in WP3 in quite a simple way, as practices of identifying, distributing, organising and regulating human activities in a territory according to some criteria and priorities. It includes the norms, legal instruments and practices that allow the organisation of the territory in terms of land uses and activities. The question asked here is to what extent these norms, instruments and practices, at different administrative planning levels, allow for or incorporate (rural) sustainable development as a goal of planning.

All the CORASON regions have been influenced, to a greater or lesser extent, by the EU as an institutional, political and economic context. This is particularly clear in the new accession states from Central and Eastern Europe, which have even had to reformulate their territorial divisions to create 'regions' where these did not previously exist, in order to adapt to the EU context. But under the influence of EU policies for administrative decentralisation, and EU funding for regional and rural development, all the regions have experienced a growth in public structures at different territorial levels (with the effect that in some rural localities, e.g. Sky and Localsh, public servants are the largest proportion of the employed population). The preparation of time-bounded land-use and physical plans, usually at a regional rather than municipal level and providing a framework within which municipalities must operate in developing their own local plans, has also become an increasingly frequent activity in the CORASON countries.

The 'Europeanising' effects of EU spatial policy, particularly the European Spatial Development Perspective (1999), on member states are considered in the WP3 Report. The ESDP establishes the goal of 'sustainability', understood as reconciling ecological and cultural functions of an area with its claims to social and economic development, as central to a 'balanced' spatial policy. However, it recognises that this objective will be achieved differently in different circumstances and settings. In relation specifically to

rural areas, it follows EU policies for integrated rural development, emphasising both the variety of rural circumstances across Europe and the importance of using endogenous potential and cross-regional exchange of experiences to promote diversified forms of development. Thus rather than laying down in advance what forms of spatial re-organisation are suited to the rural, it suggests that rural areas, within their wider regional contexts, should find their own path towards sustainable development.

Although the guiding ideas of the ESDP were subsequently considered and included by member states and regional administrations in their own policy frameworks, the question remains to what extent it has had a material impact in altering land use and physical planning practices at these sub-European levels. Here, the Report emphasises two points in particular. First, the diversity of the institutions, power hierarchies and legal and policy frameworks involved in land use management in the different countries. On the national level, in some cases land-use management is the responsibility of the Department of the Environment, in others, of Agriculture, and in others again there are designated land-use management departments. Some countries are have an established tradition of strategic spatial planning, others focus on physical planning; in some cases planning (usually only physical planning) is devolved to the local level, in others it remains under supervision from higher levels. These differences affect both the sorts of actors and knowledges involved, and the extent to which sustainable development discourses have penetrated in different contexts. Second, while sustainable development is present as a discourse in all the main national and regional planning policy documents, when we look at the specific tools developed for its achievement (laws, rules of implementation, programmes and projects etc), we find important differences. For example, regions such as Mecklenburg-Vorpommern (Germany) show a high degree of institutionalisation of SD praxis as well as discourse, whereas in areas like Aspromonte (Italy), Valencia (Spain), Alentejo (Portugal) or Cesky Krumlov (Czech Republic), practices for sustainable development take place primarily at the local level and are due not to clearly established norms and regulations but rather to personal inter-relations, individual political commitments, and the presence of leaders.

As rhetoric, the sustainable development discourse appears to have penetrated more deeply at national and regional planning policy levels than at local levels. Local land-use planning tries to respond to a range of different objectives: maximisation of efficient resource use, facilitation of economic development, subsidiarity and decentralisation, even increasing democratisation. Political and economic pressures can strongly influence the local planning process, and financial constraints in small rural local authorities may also lead to physical development occurring in an 'unplanned' way. There is a general trend towards increasing local autonomy in planning decisions (although some responsibilities, e.g. for environment and nature protection, infrastructures, defence) are still firmly retained at higher levels; higher-level administrations tend to defend a more conservationist and post-productivist orientation to rural land-use planning whereas local authorities are more characterised by a developmentalist concern. Given the high diversity of rural circumstances and settings across Europe, it is at the local level that sustainable development most needs to be prioritised as a policy objective, but this may also be the level at which that is most difficult to do, particularly by 'external' decision-

makers. In addition, research revealed many problems of co-ordination and co-operation between different sectoral departments and administrative levels; and the complexity of the national planning systems, where EU, national, regional and local policies may overlap or conflict, also hinders the penetration of sustainable development goals into all levels of the planning process. At the national level, despite increasing general commitment to sustainable development objectives within the policy field, planning documents often lack the details and resource identifications needed to realise them in practice; at this level, sustainable development often appears as a politically correct rhetoric rather than a real political commitment. The Report shows, moreover, how definitions of sustainability and sustainable development are not only problematic for theorists but also for policy makers and the public. The many different interpretations of these terms can lead to conflict and misunderstanding in the discourse around land management, especially when what is stated in theory does not easily translate to practice.

3. Knowledge and actors in land-use management

The above analysis of spatial and land-use planning, both as discourse and as praxis, across different rural regions and localities in Europe provides a general context within which to examine knowledges and knowledge dynamics around planning. WP3 research indicated that implementation of plans and programmes is particularly influenced by 'managerial (political and administrative) knowledge' types, while the design of policies and the normative frameworks supporting them were strongly influenced by scientific and technical expertises, often a result of collaboration between public administrations and universities or research institutes. A limited inclusion of local or lay knowledges happens, if at all, only after the plan has been formulated and implementation commenced. It is generally supposed that the move to more 'participatory' planning processes, and more decentralised decision-making, both help to increase use of local knowledge in planning for land use and the development of the physical environment. What does the research contribute on this issue?

In the last decade public participation in the planning process has been increasingly encouraged across Europe; in all the CORASON countries, researchers noted how public participation, in some form, is becoming a formal requirement in the design and approval of most physical development projects. However, spatial planning appears to be a process more open to public consultation than physical planning, which remains primarily the domain of technical experts (engineers, architects etc). Moreover, 'public participation' was generally found to be, not a process open to everyone, but rather one canalised through representatives of formal civil society organisations and associations. These may not represent all or even the majority viewpoint, and they may become institutionalised and 'over-integrated' into the administration perspective. Case-studies from some RRAs (e.g. Sweden, Spain) indicated the usefulness of adding to these formal consultative mechanisms more informal discussions with local inhabitants. Other case studies (e.g. Ireland) suggested that despite formal consultative arrangements, in practice civil society groups are regarded by administration officials as having more competence in social and cultural issues than on economic or land-use planning, which are the site of important economic interests and power relations. Finally, some national reports (e.g.

Sweden) noted that public participation in planning does not always produce more coherent or even more consensus-based plans. Nevertheless the WP3 national reports did provide a number of interesting accounts of bottom-up planning experiences which confirm that local involvement in land-use management practices can confer benefits.

The division between 'experts' and 'the public' implied in the term 'public consultation' over-simplifies the complexity of actor types found in local cases. The case studies identified some key actors working on the ground in rural development issues who are important carriers or facilitators of interaction between different types of knowledge. Highlighted by most research teams were the managers and technicians, members of what is increasingly referred to as 'the new project class', who have become fundamental actors in strategic planning processes for a number of reasons: they have the necessary managerial knowledge and capacities to prepare proposals and manage projects; they are good transmission channels for expert knowledge to be disseminated into rural areas; they are often well placed to promote interactions between scientific, political-managerial, and local knowledges; and they have a capacity to attract partners and build consensus within local groups. Also identified as important were a category of 'intermediate actors', who use their knowledge of the legal mechanisms around physical planning or environmental protection to help a project achieve its objectives; these include non-rural actors who work in universities or other public bodies, as professionals in particular areas (law, biology, etc), or collaborate with environmental and other associations and NGOs. Because of their access to a specialised body of knowledge, they have a greater capacity than rural actors who lack this knowledge to influence political decision-making towards their own interests.

Another important group of actors is farmers and landowners, acting either as an organised collective or as individuals; they are fundamental actors in land-use management processes because agriculture remains the most important form of land-use in all the study areas and changes in land-use necessarily involve this group of actors. The importance of their local knowledge is shown in some of the case studies (e.g. the crofting institution on Skye in Scotland), which indicate how deep-rooted cultures around land and land use management have helped to preserve the environment, the traditional agrarian landscapes, and even community structures that contribute to a better quality of life. Finally, new users of rural areas need to be included: new development dynamics in rural areas have been accompanied by the emergence of new rural-based actors who may bring new types of knowledge into local planning debates and decisions. In all the CORASON case studies, newcomers defended a post-productivist view of the rural and contested almost all actions or projects which might modify the local landscape and environment. They are often also bearers of certified expertises or specialised knowledges which can gain them a strong voice in the decision-making process.

The case studies suggest that high quality knowledge of different types exists in relation to land use management issues, and that often these types of knowledge have been materialised in interesting projects able to contribute to rural sustainable development. In particular, scientific and local knowledge can be combined to encourage sustainable land use, and some examples of successful approaches of this sort are found in our case

studies of rural tourism, stewardship of the land involving non-public actors, and the establishment of regional parks. In the past decade, planning and projects for the promotion of development in rural areas have become more open to the inclusion of new actors, mainly because of the generalisation of more participative processes, but also because of the existence of different programmes – most of them promoted by the EU, i.e. LEADER, INTERREG – that allow a greater flexibility in the design and implementation of projects by different types of actors. However, a number of problems can arise that prevent available knowledge from being used and combined in the most useful ways:

- There is considerable scientific, technical and specialised knowledge for land use management and sustainable development, but much of it has not been taken on by political decision-makers; inter-personal and interest relationships among decision-makers and managers are often what critically shapes strategic decisions making, while technical or expert knowledge may have less capacity to influence these decisions.
- The different types of knowledge are often weakly integrated in spatial strategies and initiatives for RSD, and may on occasion be a source of conflict between different actors
- Rural areas sometimes have weak external ties, and hence difficulties in accessing knowledge useful for their own development
- Economic and demographic crisis can lead to abandoning traditional activities linked to the use of land and its resources, with a consequent loss of local knowledge.

II.1.2 WP4: Demographics and Civil Society Overview

WP4, co-ordinated by Partner 12 with some input from Partner 1, addressed civil society and demographic trends in terms of their relevance for rural sustainable development.

A simple definition of civil society sees it as the historically, culturally and socially specific forms of active and voluntary involvement of citizens in public life and public policy. Civil society is the product of a long-term process, redefined politically in every historical epoch and developing in a close inter-dependency with socio-economic change. In contemporary society it takes on complex forms, shaped by political structures, educational access, power relations, social mobility, rural-urban relations and a country's place on the centre-periphery European and global axes. The growing view in Europe is that for a country to function efficiently, a vibrant and empowered civil society with an active, engaged and participative citizenry is essential. In turn, this depends on a dense network of varied civil associations, movements, clubs and institutions organised between the individual citizens and the state. However, one of the interesting outcomes of the research for WP4 was to illuminate different national traditions in the understanding of the term 'civil society' itself. Some country reports took the term to refer primarily to welfare and self-help associations and groups, who provide resources

for marginalised sectors of the community which the public authorities cannot provide. In other cases, civil society phenomena were seen as representing an independent and sometimes oppositional self-organisation by society, best captured through research on social movements and forms of mobilisation at local or national levels. The latter often seemed most interesting in terms of the arenas they provide for the use and articulation of local knowledges and pressures for their inclusion in the process of decision-making.

CORASON sees rural areas as key for the transition of a society to sustainable development. The rural is a main space of engagement with the environment in terms of gaining a livelihood from working with nature, and may be a key location for ecological awareness and the development of discourse about the environment within civil society. Thus we are particularly interested in the role which civil society can play in the development of rural societies. Demographic data provide a useful background for understanding important social changes (migration, age and gender divisions, employment trends and so on) which are closely interrelated with civil society developments through their effects on the potential for association and network-building, social capital and social movements within particular rural areas.

A number of previous studies have suggested that the previous type of political regime (communist, authoritarian, stable democracy) is very influential on the contemporary state of civil society. The Comparative Report for WP4 makes a similar finding. In the post-Communist countries, civil society is described in the country reports as weak: for example, the Czech Republic report speaks of ‘a high level of mistrust in other people and in democratic institutions, slowing the development of a strong civil society’, and the East German report similarly represents local civil society as characterised by very weak economic structures and economic fears (unemployment or brain drain). In previously authoritarian countries we find some similar accounts: the Portuguese country report says that ‘there is not an active, dynamic and self-sustainable civil society’ either in rural areas or in the society as a whole. However in ‘old’ democracies, civil society appears to be stronger: the Norwegian country report argues that ‘There is a huge amount of civil associations in Valdres’ – primarily directed to social welfare activities with the old or handicapped, although some are involved in projects for local or regional development. The Irish country report emphasised the long history of civil and political engagement which characterised the rural population in Co. Tipperary, from the farmers’ co-operative movement of the turn of the 20th century to the rise of the rural self-help movement of the 1930s, through to the strong networks of sporting, farming and charitable associations found in the area today.

However, judgements of relative strength or weakness depend also on how ‘civil society’ is understood, by researchers or by social and political actors. In some cases it is understood as a volunteer-based (Czech Republic) form of engagement, in others as a ‘community-based’ (Ireland) form. The Hungarian state appears to be trying to develop civil society projects through policy, using a top-down approach which leads to some cynicism about its authenticity (a main motivation for this may be the need to satisfy EU criteria), whereas in Italy, Ireland and some other established democracies such as Scotland or Norway they appear to arise more organically.

The objective of WP 4 was to analyse the nature and condition of civil society in the rural areas under study, in the context of the wider state society. This included analysis of: changing demographic trends and their impact on civil and community life in rural areas; new forms of governance, leadership, and relationships between institutions, power holders and local actors; the presence and effect of NGOs (national, regional and local) and their character (field of interest, target groups, financial situation etc.), position in the localities, and co-operation with other actors. From this material, we tried to assess the impact of civil society on rural development, in terms of capacity building, empowerment, education, and skills, as well as gaining some insights into knowledge use and knowledge dynamics within this field.

1. Demographics

In terms of national characteristics, Spain has the largest area of the 12 countries (505 992 km2) and Ireland the smallest (70 273 km2). According to 2003 statistics the populations range from 82 million people in Germany to 3.9 million in Ireland, with most of our countries lying between 10 and 60 million. Population density is highest in the United Kingdom (246 people/ km2) and lowest in Norway (14 people/ km2). Portugal has the highest percentage of rural inhabitants (45.4 %) while the UK has the lowest (10.9 %). The highest unemployment rate is in Poland (18.8 %) and the lowest in Norway.

Demographically, Ireland is somewhat distinctive from the other 11 countries, as the only country with more than 20% of its population in the 0-14 age group, and the only one with an annual population increase of more than 1.5%; 4 countries (the Czech Republic, Germany, Poland and Hungary) show an annual average population decline, although in all cases this is less than 1%.

The largest employment sector by far is the service sector, which constitutes two-thirds of all employment across our 12 countries (the average for agriculture across them is 7%). Service sector employment is highest in the UK, Sweden and Germany; the Czech Republic is the most industrially based economy, with 40% of those employed working in industry. Agriculture is the most significant employment sector in Poland, with almost 19% of the working population employed in it, while in the UK less than 1% work in agriculture. Agricultural workers are more likely to be men than women in all countries except Greece and Portugal. (Further information is available in the appendices to the Comparative Report for WP4)

Within our RRAs, population issues vary considerably: ageing populations are found in Malopolska and Lodzkie (Poland), Jamtland (Sweden) and the Zala county (Hungary); out-migration is a problem in Mecklenburg-Vorpommern (Germany), Jasz-Nagykun-Szolnok (Hungary), and the Communidad Valenciana (Spain); Jihocesky in the Czech republic, the Prefecture of Kardista (Greece), the Highland and Islands (Scotland), Oppland (Norway), and Jamtland (Sweden) all exhibit low population densities; and there is high unemployment in Ustecky (Czech Republic), Mecklenburg-Vorpommern (Germany) and the Baixo Alentejo in Portugal. However these features are not

necessarily present in all our rural regions. In Ireland, indeed, population growth in the country overall is mirrored in population growth in rural Co. Tipperary.

Demographic trends in most of rural Europe are shaped by the out-migration of younger and more educated people seeking a better livelihood in urban areas nearby or abroad. In nearly all the countries the main issue that concerns rural areas in lack of employment, in the conditions of a contracting agricultural base. A major focus of rural development is to encourage economic and social development of a kind that allows young educated people to find work in rural areas that will give them a standard of living comparable to that in urban centres. In Hungary, for example, NGOs have been charged with the development of educational, cultural, social, environmental, health care and scientific activities for rural populations through the incentives of tax breaks from the government. Weak economic structures, and a lack of financial and human capital resources, can lead to situations where the community and voluntary programs that have been set up are limited, state initiated and controlled, and driven by top-down external incentives. The small number of bottom-up initiatives and social movements found in our research tend to occur primarily in relation to environmental issues.

2. Actors

The main actors cited as influential in the development of rural civil society in our country reports are local and national governments, local, national and international NGOs, the European Union (through frameworks such as LEADER), farming organisations, religious organisations, sporting and cultural organisations (such as local groups reviving traditional crafts). There are significant differences across Europe as to the relative importance of these organisations and actors due to the socio-economic and political histories of these countries.

Civil society is a space of negotiation of meaning through communication between these groups, individuals, communities/NGOs, national agencies/stakeholders, and now with supranational processes of globalisation, the EU. The symbolic and ideological vibrancy of ‘community’ appears to be a significant element in the maintenance of civil society; the experience of change ensures that reflective ‘construction and contestation of “community”, and its relations to constructions of nature, history and legitimacy’ (Scottish country report: 17) become active in the negotiation of meaning in the local civil society. The patterns that these new forms of reflexivity and the knowledges associated with them lead to appear to significantly influence the effectiveness of participative models of citizenship.

Some aspects of civil society are illustrated below through the use of examples from the empirical work for WP4.

- the Polish country report discusses a local programme in Nowosolna Gmina which tries to counteract the weakness of local civil society and the widespread mistrust of politics. The programme is addressed to local governments which, in cooperation with non-governmental organisations, are encouraged to implement the following principles in their transactions: transparency of action by local authorities; zero tolerance for corruption;

participation, predictability, professionalism, and responsibility. The purpose is to recreate trust in politics and support for the programs stemming from the political sphere.

- In Hungary, the EU is regarded as having a positive role in developing open communication and increased public participation in governance. To become an EU member state, Hungary had to readjust its view of civil society and allow the devolution of some power to civil society, while also funding its progress. In Spain, too, LEADER and RURBAN projects illustrate the EU's role as mediator between the state and local actors. According to the Spanish WP4 report, the EU takes on the role of manager between weak state and weak civil society, attempting to boost both and their communicative governance based practices.
- The women's/feminist movement happened in different times and to different extents across Europe and are now undeniably an essential part of modern rural civil society. The Irish case shows how the movement of women in the 1970's from home to work place, the introduction of gender equality in many spheres, and of access to contraception led to significant changes in the Catholic, family based, patriarchal model of Irish life that had previously dominated rural areas. The emancipation and education of women encourages their out-migration, however, and the problems associated with declining numbers of women in rural areas is a recurring theme in the country reports.
- Not all country reports discussed religion as an element of civil society, but among those which did the most prominent were the Irish and Czech reports. The weakening of organized religion in Ireland is associated with the emergence of a number of new social movements; the Czech Republic has not had a recent history of religious influence on society and culture, but in the post-Communist period there are some indications of a re-emergence of religious values and attitudes.
- The Irish country report notes how strong traditions of sports (GAA), and of Irish music performance create important bases in rural Ireland for the formation of local community identification and affiliation, and provide support for local media and informal local networks. "This concept of 'community' derives from Ireland's agrarian past, when many rural areas did genuinely support 'communities' which were united through kinship relationships and through shared labour and other 'neighbourly' exchanges between individual farm households, but today it is applied to urban as well as rural areas" (Irish WP4 Country Report: 2).

3. Knowledge

Contemporary civil societies in rural areas and communities are complex and contain both local and 'outsider' voices in their communicative nexus. The negotiation of knowledge types and structures is the key to public participation in the management of RSD. External knowledge is channelled through the programmes of EU and state agencies to local actors. Local knowledge is integrated, more or less well, with the decision-making power of local and regional government through projects answering to

these programmes. NGOs are frequently central to this process as they try to manage specialised and expensive expertise on one side and local interests, practices and knowledges on the other.

Local identity feeds local citizenship and can, if allowed, advance forms of multiple-citizenship, as local actors engage with symbolic meaning construction relative to both lay and expert knowledge used in the local setting. “Identity is re-constructed selecting the positive elements of their own history, the ones that may have value in the project-network, that may have value for the "other" (the tourists, the visitors). Identity is re-constructed in a differentiation from, not the ignorance of the “other”” (Italian WP4 Country Report: 31). Multiple knowledge forms can also lead to the creation of new knowledge as ‘project networks’ develop, “creating bridges between cultures. That implies translating codes of one culture into codes of the other culture. Guides may be seen as "cultural brokers" between the territory and the tourists, the local knowledge and the foreign tourists” (ibid).

In some cases, local actors look for available mechanisms to mobilise local, or tacit, knowledge and existing social capital into specific projects that allow them achieve developmental objectives. In the Scottish case studies, some examples of how adaptation and transformation of local knowledge is contested by the local indigenous populations are evident. Although in favour of local development, they are reluctant to allow changes to their cultural traditions. In the Italian case studies, existing inhabitants or return migrants often encourage pluralistic knowledge use, incorporating expert, managerial and lay/local knowledge into development projects. However in the Hungarian country report it appears that education of the local population as a means of attracting EU funding for ‘bottom up’ self-help projects is more inimical to local varieties of knowledge, while the Greek report argues that the knowledge base used in development projects and actions is non-local knowledge produced by non-local actors (Greek WP4 Country Report: 17). In this instance, the definition of acceptable or valid knowledge is closely related to the distribution of power; this leads to a form of passive resistance by the local population.

In many of the rural areas studied in CORASON, a tendency is evident for incomers to outbid locals for houses and to change the cultural setting of the community which may also lead to the creation of new class stratifications. This can introduce new knowledge but also create resentment among the traditional community dwellers: “Migrants may be welcomed so long as they don’t change anything, perhaps. Regardless of issues of ethnicity or other forms of difference, in-comers are a source of both hope and suspicion” (UK WP4 Country Report: 7). In-migrants are usually economically more prosperous than locals, leading to an unequal balance of power; locals must negotiate with the changes in structures, e.g. increase in house prices, while the newcomers must negotiate with local cultural and social attributes.

4. Civil Society as a determinant of rural sustainable development

Without new generations to act as carriers of local knowledge and heritage, a community's culture can become 'thin'. In-migration helps to maintain basic population demographics in communities; however the threat of cultural loss remains. Return migrants are more likely to provide the connections which can revitalize local knowledges while linking them to external and 'expert' forms. Tourism, perhaps counterintuitively, does not always detrimentally affect local culture: it can lead to the "commodification of local cultural attributes" (UK WP4 Country Report: 10), but can also give them an economic value that can help to sustain local livelihoods.

Our country reports suggest that informal networks provide essential communicative spaces for civil society. However, to focus on NGOs as the only non-institutionalised form of organisation is misleading, especially in the rural setting. In Greece, family is a key element in the formation of local networks; in Ireland, residents networks are also important; in Portugal, informal networks permeate local co-operative organisations and other farming associations. Informal networks are also extremely important within local civil society in Scotland and Italy, and although not explicitly discussed in other country reports, there is some evidence of their existence and significance as an expression of civil society there too. These informal societies, or private spheres, are fundamental for local communities, functioning as conduits of friendship networks and neighbourliness, political, economic and social communication.

Formal networks linking the EU, the national policy makers, the local administrators and councils and the local populations are also important in determining effective models for rural sustainable development. A strong civil society with a strong sense of local citizenship and ownership of the processes of negotiation and decision making ensures the possibility of governance. The relations between formal and informal networks, and the knowledge dynamics which result, emerged as significant research questions in CORASON. Public participation models of decision-making can in some circumstances encourage their integration, and give lay knowledge forms some credence in the decision making process.

The combination of bottom up and top down initiatives works well in Italy. Here local knowledge is used in conjunction with expert knowledge to develop ecological and cultural tourism, leading to economic progress where industrial programs have failed. In contrast, the clientelist and corporatist model found in the Greek country report signals future problems for rural sustainable development. If local culture, historic symbolic structures and local knowledges are repressed by external forces, a sense of belonging to the project of rural sustainable development will be extremely difficult to foster. The symbolic construction of identity through recognition and cultural coding of elements in the lifeworld are central to identification with the local setting. A regeneration of symbolic construction of community through the mediums of sport, music, art, festivals, dance and history has aided local civil society development.

Infrastructural developments**,** understood in a broad sense to include communications networks, also help to shape the nature of local civil society. The presence of infrastructure such as information technology, transport, educational and general

amenities such as sports facilities seem to be linked, in the country reports, to decrease in out migrations, the creation of employment, and increased tourism. Many projects for rural development were directed towards infrastructural development in this broad sense. However their implications for local cultural reproduction and cohesion are not necessarily straightforward as later case studies showed.

II.1.3 WP 5 Nature Protection and Biodiversity overview

WP5 looks at knowledges and actors within programmes and projects for nature protection and biodiversity maintenance. These include nature protection areas, species protection areas, biotope protection, agricultural landscape programmes, agri-environmental and local community-based projects; the goal was to study cases which would reveal the aims, management forms, actors and knowledge requirements in nature protection, and to explore the consequences of such programmes for rural land use and rural sustainable development. We also hoped to investigate the effects which sustainable development discourse might be having on the knowledge base and management practices used in nature conservation. We were particularly interested in identifying, not only legally-based or bureaucratically designed schemes, but also newer forms which involve civil society participation.

Country teams were asked to provide two main sorts of data in this WP: an account of the policy frameworks and measures to protect nature within their country and/or region of study, based primarily on documentary analysis and indicating the key actors, knowledge resources, driving forces and constraints; and an account of a number of local case studies, representing contrasting initiators (e.g. state vs. private), management approaches (e.g. regulatory vs. participatory) and spatial or territorial levels. These case studies involved analysis of existing research, where available, and interviews with experts and participants. In the event, the research covered 27 different case studies, ranging from projects to conserve the Red Cow and the bumblebee (Poland) to the Usedom Nature Park (Germany), to a community project to conserve and develop a lake which is becoming suburbanised (Ireland), to the local implementation of Natura 2000 (Greece). The case studies were categorised in the Comparative Report as either reserve management types, agri-environmental projects, or community development projects. For further information about these case studies, please see Appendix 3.

The Comparative Report

The Report found a number of concerns about the rural environment which were shared across the study countries: primarily, a progressive degradation in semi-natural and farmed habitats, driven by a combination of intensification and abandonment. Land abandonment has occurred on a large scale in the CEE countries (one million hectares of farmland in Hungary is thought to be affected, for example), whereas in other parts of the EU agricultural intensification is seen as the main problem, leading to soil degradation and water quality problems. Most of the country teams also reported problems from

urban expansion, leading to a fracturing of rural landscapes and the disruption of habitats by infrastructural projects.

National policy responses to environmental problems are strongly shaped by EU Directives, most recently Natura 2000. The EU LIFE Programme plays a major role in Italy, Germany, Hungary and Portugal; in other countries biodiversity management tends to be more closely related to agri-environmental programmes. However despite this tendency towards Europeanisation of nature conservation policy frameworks, national approaches, legislation, institutional structures and funding show considerable variation across countries. There is also considerable differentiation in the extent to which policies are realised effectively in practices of resource use at the local level. In the CEE countries there has been a long tradition of nature conservation legislation, and the traditional approach to nature conservation was designation of national and landscape parks; most of these were established during the Communist period, but there has been considerable activity in this area also in the 1990s, including in Sweden and Italy as well as in Hungary. Norway's second National Park Plan contains a commitment to increase protected areas from 11% to 13% of national territory. A second approach, found in a number of countries (Italy, Hungary, Ireland, Scotland), is to draw up national Sustainable Development strategies and/or biodiversity action plans; our country researches suggest that Biodiversity Action Plans are much more likely to encourage participation of lay people in policy making than the Sustainable Development Strategy approach, in which expert, particularly natural-scientific, knowledges are given a much more prominent voice.

Countries also differ in the institutional structures underpinning nature conservation policy. In Greece, Poland and Sweden, this is highly centralised; in Greece, this leads to poor communications between local and regional actors and the central Ministry for the Environment; in Sweden vertical communication is very effective but top-down, leaving only a co-managerial role to regional and local agencies. In contrast, the federal structure in Germany allows most decision-making to be done at the regional level, within a legislative framework and guidelines laid down by federal government. Regional subsidiarity is also evident in the Scottish, Norwegian, Polish, Spanish, Czech and Italian cases; in Italy, national law from 1998 prescribes that the establishment of any new national park must arise out of a process of negotiation between the national, regional and local authorities. In Ireland, despite recent delegation of conservation planning powers to the local authorities, these remain tightly constrained by centralised agencies and policies.

In rural areas, understandings of nature conservation have begun to change (again primarily influenced by changes in EU regulations) from a policy of 'protection through excluding human resource use' to one of 'integrating protection and use through sustainable practices' such as the encouragement of organic farming. This is linked to the shift from an agricultural to a rural policy orientation at EU level, which changes the development objective from increasing agricultural productivity and incomes to that of maintaining rural communities and diversified rural livelihoods. Among our participating countries, this thinking is most advanced in Sweden, where regional and

local programmes for biodiversity protection are not only found within environmental policy but also in programmes for integrated and sustainable rural development. Nevertheless the WP5 CR concludes that in Sweden local knowledge is used very little in implementing the ambitious policy agenda and that participation of local stakeholders is not greatly encouraged. It is also found in Italy (e.g. the National Ecological Network programme) and appears to be most likely to occur in countries where National/Local Agenda 21 programmes are well developed, and least likely in countries where this has not occurred (e.g. Ireland). However, the absence of Agenda 21 mobilisation does not mean that movements and associations for environmental protection are not found in these other countries at both national and local civil society levels. It may mean that civil society movements for nature protection in these countries are more likely to adopt an oppositional than a co-operative attitude to state agencies and actors.

The analysis of knowledge dynamics in nature conservation programmes and projects is given separately in the Report for the three different types of case study outlined above.

1. Reserve management (designation of national or nature parks, UN biosphere reserves, protected landscapes etc). These may be implemented in a number of different forms: through land management agreements based on contracts between authorities and landowners; land acquisition programmes, intending to change the ownership structure of reserve land; participatory management approaches, where local landholders are included in decision-making; or some combination of the above. They generally involve the establishment of a management board which monitors restrictions on use of nature and may also work towards improving nature values by initiating spatial and land-use planning, tourism amenities etc. Spain, Italy, Norway, Portugal, Scotland, Hungary, Greece, Ireland and Germany all contributed case studies of local reserve management examples. In all these cases, formal (codified and certified) expert scientific knowledge plays the dominant role in conservation activities and practices; this is particularly visible in the Irish, Hungarian, Greek and Spanish cases. Reserve managements tend to understand their task as one of generating scientific knowledge about local nature, habitats and biodiversity, and perhaps disseminating this expert conservation knowledge into the local communities; they rarely see themselves as needing to engage with or understand local conservation knowledges and practices. In the case of Nature Parks, however, some managements (e.g. the Guardiana Natural Park in Portugal, the Aspromonte National Park in Italy, the John Muir Trust in Scotland) explicitly endorse a vision of integrated nature conservation with benefits for local rural development; others (the Spanish, Norwegian and German case studies) still adopt a more 'purist' approach where regulation of resource use and prevention of potentially harmful activities remain the main objectives, although in the Norwegian and German cases a move towards integration of nature conservation with sustainable development discourses is beginning to be evident.

These different understandings of the reserve's functions affect the extent to which local stakeholders are involved in the management process, alongside experts and national or regional agencies. This emerged in case studies as a critical issue, which shapes both the degree of co-operation with reserve objectives found among local actors affected by it

(particularly farmers, landowners, hunters), and the rapidity of dissemination of expert understandings of conservation among local populations. In the Spanish case, although moves to increase the level of protection accorded to natural habitats in the Espadan mountains through a Natural Park designation were originally initiated by local communities and community organisations, who saw this as a way of creating new incentives for economic development in a depopulating region, park management has been largely taken over by scientists who see only technical knowledge as relevant to decision-making. Local actors are given no role except that of political support for the regional administration when conservation decisions reach the political arena. Local people now see the establishment of the reserve as restricting their use of land while not developing any possibilities for alternative economic activities, and have withdrawn their support from it.

Support for conservation reserves may thus come from very different sources, counterposing, for example, an interest in new forms of economic development against an interest in maintaining a 'pristine' nature or in providing a territorial laboratory for scientific research. The skills to manage and integrate these different understandings are not often held by ecological experts. Overall, it is evident that both success in the reserve designation process, and success in maintaining goodwill toward the reserve once established, requires the availability of sophisticated managerial knowledge which can smooth interactions both with relevant political authorities and agencies and with local communities and stakeholder groups.

2. Agri-environmental projects. CORASON research for WP5 identified a number of agri-environmental projects, mainly supported through the EU Rural Development or SAPARD programmes, oriented to preserving existing agricultural systems and their cultural heritage, which could be included under our broad definition of nature and biodiversity conservation. The Zonal Plan of Castro Verde in Portugal aimed to combine economic with ecological values through the preservation of 'good farming practices' in extensive farming systems. In Poland, a case study was made of the reintroduction of a 'traditional Polish' breed of cow which had been virtually eliminated in the 1960s as part of an attempt by state authorities to increase animal production, while another examined a project to conserve the threatened bumblebee as part of a programme to increase orchard fruit production. These studies suggest that in countries where small-scale agriculture persists, many farmers are not convinced by the agri-modernisation development model and are open to participating in alternative schemes and projects. Conserving or re-introducing older agricultural practices appeals to both the inclination towards 'sustainability thinking' found among such groups and their interest in cultural heritage (rather than in environmental conservation per se). Participatory structures for management of such projects, where local and lay knowledges can be brought into play and the key local actors mobilised, appear essential to their success. Good collaboration between scientists and project beneficiaries, particularly where scientists are interested in studying and solving conservation problems at a local and applied level, is also important. The Polish case studies in particular suggest that we can see in these projects the beginning of a 'transdisciplinary' approach to knowledge, from which both scientists and local actors can benefit.

3. Community development. In the context of globalisation, new social movements, associations, groups and networks are emerging to promote or to contest nature conservation arrangements in rural areas. Here we focus primarily on the engagement of groups and movements at a community level, rather than that of international, national or regional NGOs. Centralised and top-down conservation actions by the state which allow little participation by local actors may coincide with a high mobilisation of local civil society (in Spain, the Valencia region contains over 60 such informal groups), or (for example in the Czech Republic) may compensate for the absence of local mobilisation. Local civil society mobilisations may encourage collaboration between scientists and local knowledge holders, or may place the two types of knowledge in competition with each other. Case studies in Spain and in Ireland suggest that local or lay conservation actors are often 'self-taught' or 'citizen experts', with a high degree of specialised knowledges in ecology, urbanisation, GPS or telecommunications etc. Lacking accreditation, their expertise is often regarded as of lesser value to that of formally recognised experts, but their political and managerial knowledges may be much better developed than in those other groups. They often engage in a process of testing and re-testing their acquired scientific knowledge against knowledge they have drawn from personal experience and from other members of the local community; their 'scientific' interest is not in generalising knowledge so much as in strengthening their understanding of the particularities of their local habitats or species. A different but relevant case in this context was the Scottish case study of Duchas, which while not a 'community' project (it was implemented by staff of a government agency) aimed to promote sustainable rural development through a strongly designed local participatory approach. Developing a local strategy to protect nature was seen by Duchas as a way of 'building community capacity and effective partnership', in which bringing together local knowledge and external expertise is a key step in empowering local communities for sustainable development.

While conflicts can often arise between local groups seeking economic or infrastructural development despite detrimental environmental effects, and environmental NGOs or state scientists concerned to protect nature against such development, the cases presented in this WP where community actors fought rather to conserve local natures suggest that these are often highly important arenas for the spread and internalisation of relevant scientific knowledge and for processes of co-learning between scientists and lay people. Even the former type of conflict, if managed with sensitivity to local needs, using a diversity of types of expert, and through consultative and participatory processes, can be occasions for such co-learning. Both types help to increase local public awareness of ecological ideas and problems.

In conclusion, WP5 highlighted two issues of considerable importance to the work of CORASON. The first is that we can see a gradual process, operating at different speeds in different countries, through which ideas about sustainable development are informing and changing policies and practices for nature conservation. There is a growing awareness that a conserved countryside must be socially viable, and is therefore dependent on the vitality of rural communities. Second, Sustainable Development

operates in these new policy discourses as a 'platform concept' or proxy for many different concerns: scientific discourses, to the extent they use the concept, often prioritise natural resource protection; policy documents generally define it as a three-dimensional approach which simultaneously maximises economic development, socio-institutional effectiveness, and ecological conservation; and for many rural actors, it can invoke ideas about stewardship relations to nature, notions of 'sustainable livelihoods', or even the preservation and revitalisation of a cultural heritage of skills and practices in food production and resource use. While the concept can be and often is used effectively to bridge these different meanings, it can also be the case that its necessary vagueness can facilitate the continued dominance of political or private economic interests over public goods in what is represented as a sustainable rural development project or process.

II.2.4 WP6 – Local Food overview

In the agro-industrial model of rural development, food production is central to the development project; in the 'post-productivist' model, other ways of using rural resources are more favoured, and Marsden (2003) even argues that agriculture becomes seen as a dirty, polluting and intrusive element in the consumption countryside. The focus of this workpackage may be seen as more in tune with the 'New Paradigm Rural Development' model. WP 6 concerns the relations between local food systems, sustainable rural development, and knowledge dynamics. This has as its context the argument that two distinct tendencies can be discerned in the contemporary agri-food economy. One is globalisation, wherein food producers are increasingly incorporated into a global food system which is now characterised less by vertical integration dominated by the food processing industry and more by a flexible demand-driven global value chain dominated by the retailing industry. The second is (re)localisation, creating systems of relations between producers and consumers characterised by distinctive concerns around quality, territorial embeddedness, and new organisational forms. The *Input Paper* for WP6 asked how knowledge used in the production and distribution of local foods, which is locally derived and largely non-standardised, may evolve towards more codified forms as local food chains stretch to include more distant consumers and regulatory actors; and also how or whether sustainable development discourses influence rural policies and development programmes in the field of food production.

The country reports included some 27 case studies, covering a wide range of examples; among them were a bio-slaughterhouse catering for organic beef farmers in the Czech Republic, a fruit-growers association in Poland, a bakery in Hungary, a Farmers' Market in Ireland, a naturally-smoked seafood company in Scotland, a traditional salami production operation in Norway, Protected Geographical Origin sausages in Spain, a local food system based on a locally typical variety of pig in Portugal, wine producers in Greece, and in Italy, rice production in the Po Valley and the construction of a certification system for local foods in the Aspromonte National Park. (For further information about the cases studied, please see Appendix 3).

Having analysed the country reports, the *Comparative Report* for WP6 suggested a more developed typology under the concept of 'local food':

- initiatives, often grassroots, to relocalise and re-socialise the food system as an 'interpersonal world' of production and exchange, often in a context where the local agriculture has historically been organised for export and where local food provision is organised by large supermarket chains. Here, concerns about community and environmental sustainability tend to dominate local action. Examples of these are found in the national reports from Ireland, Scotland, Sweden, and partially in Germany and Italy;
- initiatives to valorise foods which are regionally specific, sometimes protected by Designation of Origin but often uncertified, rooted in pre-industrial traditions which were marginalised under the agri-industrialisation model or in peripheral localities bypassed by modernising forces, but which never became entirely extinct. Here the main objective is economic sustainability for the food producers and networks based on the local food, in particular through access to differentiated markets and distant consumers. Examples are found in the national reports for Italy, Greece, Spain, Portugal, Norway, and (in somewhat different ways) in the post-socialist countries of Poland, Hungary and the Czech Republic.
- A third set of initiatives, studied particularly in the CEE countries, to develop organic agriculture are a diffused way to pursue distinctiveness of food production and to establish direct links between producers and consumers. Economic rationality is prevalent in these cases and organic certification is seen as a device for establishing an interpersonal relation between producers and consumers and for gaining access to differentiated markets. It is not clear, however, what perspective on rural development these initiatives try to implement, and what role local food can play in that.

The first two types of 'local food' share a common final objective, the re-vitalisation of rural communities; but the routes through which these are pursued may be different, and even contradictory. They reveal different knowledge dynamics, and may differ also in their definition of, and effectiveness in realising, a new model of rural sustainable development based on increased local food sovereignty. Re-localising initiatives have been influenced by critiques of organic certification as something which has encouraged the commoditisation of organic food and the de-localisation of its consumption; initiatives based on an 'origin-of-food' perspective seek to increase the economic value of local food specialities, often through the development of certification or regulation processes which help to de-localise consumption, and which require the input of institutions and experts beyond the local territory itself.

This overview of the Comparative Report for WP6 focuses primarily on just two of the issues discussed in it: (1) definitions and practices of sustainable development in the context of initiatives to promote local foods or food systems; and (2) knowledge dynamics within each type of initiative.

1. Sustainable development in local food promotion

In the initiatives to rebuild local food systems, sustainability emerges as a strong and reflexively held goal. The dimension given the most explicit consideration is social sustainability; the areas engaged in these initiatives tend to be ones with a strong history of involvement in community development movements, and constructing a food system characterised by more personalised relations between producers and consumers, and the creation of stronger networks and ties across the territory, is understood as a way of encouraging the sorts of local social solidarity and social inclusion which may be a basis for further development initiatives. Developing local markets, where food exchanges are shaped by interpersonal knowledge and trust, is one important way of increasing social sustainability, while another is developing co-operative associations among producers. The second most emphasised dimension of sustainability is environmental: at a global level, environmental concerns about 'food miles' motivate many of the actors in these initiatives, and at a more local level, agro-ecological concerns shape production and distribution practices. In the Swedish case, protection of the local environment through small-scale organic protection is an explicit objective of the project studied, but this is exceptional. In the Irish case, local food producers tend to be 'post-organic' in the sense that they use organic practices in producing food but do not seek organic certification for it. In others (Scotland, Germany), 'organic' and 'local' are intertwined characteristics of the quality of the food consumed. 'Quality' here means freshness, taste and flavour, and reliability, as much as being (ecologically) safe. 'Economic' sustainability receives perhaps the least attention in these projects, perhaps because they tend to be either consumer-driven or strongly oriented towards a consumer perspective on food; 'short food chains' or direct selling can increase producer incomes, and initiatives to encourage local food processing ventures can diversify the local economy and provide new employment, but economic growth per se is not generally prioritised as a distinct project objective.

In initiatives to valorise foods of local origin, on the other hand, relations between the three dimensions of sustainable development are more complex. On one hand, sustainable rural development appears to be less an object of reflexive consideration in this type of 'local food' promotion; on the other, it might be argued that those involved act from a perspective in which sustainable livelihoods and sustainable communities are taken for granted as an organically interconnected whole. The dominant dimension here is the economic: valorisation of local specificity, embodied in one or more products and in the territory where they are produced, can be seen as an innovative strategy of integrated rural development to increase the economic viability of marginalised or impoverished places and communities. This economic objective is related to the other dimensions of sustainability, (environmental and social) in various, sometimes contradictory, ways in the cases studied. On one hand, local food products and cuisines are often based on a local (animal or plant) variety; valorising a food of local origin is thus also giving value to agro-biodiversity. However, reinvigorated cultivation of the animal or plant concerned may also involve some compromises with market demands for homogenisation and standardisation; these may also be encouraged by attempts to achieve certification for the product, even while certification demands the use of environmentally friendly methods and landscape preservation. In one case, production of

a local food (rice, in the Po Valley in Italy) had beneficial environmental effects, even while the growers oppose the introduction of agro-environmental measures into their territory. In relation to the social dimension of sustainability, strategies to valorise a local food through the valorisation of its territory of production is understood as requiring a collective effort: collective institutions are established and networked, recognition of the territory as a collective good is enhanced, and this may stimulate reflexivity about territorial identity. In some cases, however, this can create new forms of social exclusion (see the Portuguese, Greek, Spanish and Polish case studies), particularly in cases where the lead is taken by scientific knowledge and extra-local actors in valorising the local product. Demands that producers must certify their product if they want to sell it as a local speciality may reduce the value of their product for smaller, non-certified producers; or in some circumstances, achieving a system for territorial certification may raise the value of both certified and non-certified products, thus putting heavier economic pressures on those who have adjusted their practices to achieve certification.

The analysis thus confirms our approach to 'sustainable development' as a platform concept: 'sustainable development through local food' provides a platform on which many quite different practices may be based and objectives formulated.

2. Knowledge dynamics in local food projects and networks

In the 'food desert' created by export-oriented agro-industrialisation and the food processing and retailing industries, much tacit or uncodified knowledge about how to produce food crops and how to prepare these for consumption has been lost. Initiatives to relocalise food systems include both attempts to educate or self-educate food growers, and conscious attempts by growers to re-educate consumers about food and food consumption. In the Scottish case, a key objective for project organisers was to teach local growers horticultural skills that had been lost in the area; this has led to a network of local growers who exchange local knowledge about 'what works' in growing vegetables on Skye, some of whom are now recognised as 'experts'. The Swedish case study included the setting up of a resource centre to transfer local knowledge in small-scale food production and food processing (cheese making, pork butchering, jam making) to wider groups of local actors. In Ireland, the organic movement, of which many stallholders at the Farmers' Market are or have been members, is an important source of knowledge about techniques for producing food in a small-scale, ecologically aware manner, but so also is informal knowledge gained from older 'conventional' farmers and from experience, as well as more formal knowledge from books. The main route through which consumer education happens is at the point of purchase of food, through interaction with the grower/seller. In this type of initiative, local or lay knowledge, often exchanged and circulated through informal social networks, is the dominant form of knowledge used.

In the initiatives to valorise foods of local origin, matters are again more complex. 'Local knowledge' appears here first in the form of 'traditional knowledge' (precisely what is understood to have been largely lost in the other initiative type). Once devalued in comparison to scientific expert knowledge, traditional knowledge about food has started to attract new interest among development agents; certification has become the dominant

route for documenting, codifying and valorising traditional knowledge for food markets. Case studies from Portugal and Italy provide particularly clear insights into how that process develops. In both cases, interest in a food of local origin first emerged among groups external to the producers - the Department of Zootechny at the University of Evora, in the Portuguese case, the managers of the Aspromonte National Park for the Italian case. Both proceeded by selecting one or several 'exemplary' farmers, observing their production practices, suggesting some improvements or modifications in production (for example in relation to hygiene), and then compiling production protocols (codification). Thus the construction of a certified food product of local origin involves a process of collection, analysis and selection from the available stock of local traditional knowledge and its integration with expert knowledges. In other case studies (wine and olive oil production in Greece, Spain and Italy), where cultivars adapted over centuries to the specific locations are the basis for the product's specificity, the empirical knowledge of generations of farmers is basic to the valorisation of the local product. But the knowledges used in winemaking and olive oil production are increasingly professionalised and standardised, and the experts here are now the scientist who understands the process of wine fermentation or the chemical composition of olive oil in a technical way. In some cases, a useful dialogue can be instituted between experts and local-lay actors; in some, expert advice is rejected by local producers; and in some others, experts recommend changes in production processes which bypass local traditional knowledges and skills completely.

Two particularly important points emerge from the work for WP6 which have helped to develop the understanding of knowledge dynamics in CORASON. The first is the tendency for local knowledge to be subjected to standardising and codification processes, as described above, once a local product in which they are embedded is valorised for economic development. Interaction between local knowledge holders and regulatory or professional experts leads to the expansion of local knowledge in one sense (as it incorporates new, technical and expert forms), and in another sense to its narrowing, where only some 'traditional knowledge holders' are selected for recognition as such, according to 'expert' criteria in relation to hygiene, output and efficiency, even taste and flavour. Similar processes may be found for other rural products (e.g. landscape, pottery and other crafts, local musical forms etc) as well as food. The second point is that WP6 draws attention to an aspect of knowledge dynamics previously under-explored in the research, that is the importance of *social networks* as the context in which both lay and expert, local and non-local knowledges are transmitted, circulated, used and refined. We will return to the issue of 'knowledge networks' in II.2 below.

II.1.5 WP7 - Non-Agricultural Economy overview

This workpackage investigated new forms of economic activity in formerly agricultural regions. It examined the implementation of projects supporting non-agricultural economic development, the knowledges mobilised in such projects, and their potential in a diversified rural economy.

The declining significance of agriculture has been a broadly observed process in regions under the impact of modernisation, industrialisation and urbanisation, and as part of the two major post-modern changes, the switch to a service economy and the rapid expansion of information technology. In some areas, the retreat of agriculture is associated with falling incomes among those still engaged in farming, with movement out of farming as an occupation and out-migration from localities, as well as marginalisation and impoverishment and depopulation of rural areas, although in other areas in-miigration and economic diversification can be observed. The de-agriculturalisation of rural communities is arguably the most important social process occurring in rural Europe. An increasing tendency towards pluriactivity among rural households still involved in agriculture has become visible, combined with growing numbers of former city dwellers moving to the rural settings in search of a better quality of life.

Non-agricultural economy refers to production of goods and services that is located in rural communities but not involving agriculture. The Input Paper for WP7 identifies three types of non-agricultural rural economies: those based on ‘other than agricultural’ extractive activities (forestry, fishing, mining, etc.); those based on manufacturing (excluding food processing, since it is widely regarded in the literature as a part of the agricultural and food economy); and those based on services (tourism, producer services, other types of consumer services, etc.).

The effects of globalisation on agricultural markets are well-known: expanding markets, increased competition and falling global prices for commodities have destabilised many farming systems in Europe and elsewhere.   Technological developments and inequalities in accessing economies of scale have particularly affected smaller landholders who have had to cease business or to seek additional off-farm employment within a reasonable commuting distance of their homes. The key topics addressed in WP7 to explore the impact of expanding non-agricultural economies in rural areas are: the actors involved; the forms of non-agricultural activity found in our study areas; the forms of knowledge and uses of knowledge carried by these developments; and their affects on rural communities and localities in terms of sustainable development.

1. Actors and forms of non-agricultural activity

The main actors involved in the rural development are the state and regional authorities, various NGO’s operating on international, national or regional levels, and the public (involved in non-agricultural and agricultural activities). All country reports mention the complexity of this milieu; combinations and significance of various types of actors seem to be highly diversified among national cases. In the Spanish case EU policy takes precedence over local and national policy actors. In the Scottish case the Scottish Executive are central to debates surrounding the development of wind farming, but this also mobilises powerful local NGOs and lobby groups that use the power of the media to create debate, the Highland Council (local political representatives), a conservationist group named the John Muir Trust and the Edinbane Wind Farm developers. In the case studied in Sweden, the state appears to engage little with local groups and NGOs, while the role of local government is to implement the centralist states policies. In the Irish

(and also the Scottish) case-studies, enterprise boards constitute important intermediate actors who provide their clients with educational opportunities, grants for fledgling business activities, and support networks through which to access knowledge and markets. These boards also play a proactive role in identifying and supporting new indigenous entrepreneurs.

In comparison, the Portuguese country report stresses the significant presence of central government as a key actor in the development of non-agricultural economic activities at regional level. It interacts with regional organs of public administration that generally implement sectoral policies (labour market, agricultural, health, etc). Local authorities and parish councils, farmers' associations, industrial associations, trade unions, various NGOs, educational institutions, public research institutions and some business organisations have also been active in looking for new forms of economic development in rural areas, but in a context in which the prevailing political attitudes to public participation and civil society engagement tend to be authoritarian and conservative. Policies are mainly formed by the central authorities and implemented by regional ones, with weak cooperation between them and other types of actors and a limited exchange of knowledges. Also, NGOs, unions and associations tend to have limited resources and their activity has been mostly limited to representation of their particular interest in the bargaining process with state authorities.

Five key issues emerged from the analysis of actors in the WP7 Comparative Report. First, the dominating role played by the state in economic development, particularly in the former communist countries, in Western countries with a legacy of authoritarian regimes (Portugal) and in federalist-type countries (Spain and Germany). In countries with a longer democratic tradition (for example: UK, Ireland, Italy and Sweden), the activity of central government has been supplemented by various types of additional national, regional or local associations, actors such as enterprise boards or NGOs.

Second, we found diverse strategies for rural non-agricultural development across our regions of study. They range from a prominent stress on tourism as in Southern Italy, Greece, Spain, and Hungary, to more approaches focusing on the development of local businesses, or policies to attract external and multinational business enterprises to the area (Ireland).

Third, the relative importance given to sustainability in the development of non-agricultural economic enterprises varies greatly from country to country. This appears to follow the level of economic development in the country in general, and is also affected by the extent to which sustainability is emphasised as an objective in national development strategies and programmes. The source from which funding comes for projects also affects the likelihood of its inclusion.

Fourth, EU initiatives and particularly LEADER are very important in advancing non-agricultural forms of rural development, as is evident in the Hungarian, Czech, Portugal, Spain, Polish reports. And finally, local communities themselves may be key actors in

the initiation, application and future development of such projects, but this is quite a rare occurrence in our case studies.

An example of a community or bottom-up initiative is found in one of the Irish case studies for WP7, on the Eco-Booley project, an initiative to 'encourage environmentally friendly tourism in Ireland'. It was started by three local actors, a farmer, a builder and an agricultural extension officer, who developed an informal network through which to encourage farmers to reinstate unused or ruined houses on their land following critera developed by Eco-Booley, and rent them to the tourists to provide farm families with an additional income. Eco-Booley building standards focus on using ecological building materials, wind-generated electricity, environmentally safe waste disposal systems, etc, thus to promote eco-tourism and to develop local knowledge about protection of the environment in conjunction with rural cultural traditions around housing. The project combines the use of new scientific knowledges with local, lay knowledge forms.

In such projects, local actors are recognised as carriers of knowledge, and as acting within particular social contexts. A Spanish case study focuses on the role of the local community in forming and implementing development strategies, showing how 'Hence, we could say that the Morella's model has taken place in a more "improvised" and flexible way, but we must highlight that it is well known and has a wide level of acceptance among local community (...) In Montajenos, [the] local population has a lesser weight and they also participate less in public calls for meetings: however, informal ways of transmission of information have been very efficient in such a small place" (NR Spain: 25). And as the Polish country report emphasised, 'The local activists by the fact of being raised in the area do not only possess an easier access to the resources of local knowledge but can also be the excellent agents of social change' (NR Poland: 14).

2. Knowledge

However, the contributions which local knowledges make to non-agricultural economic developments in rural areas are often much less significant. In many cases, non-agricultural enterprises arise as a response to the requirements of former urban dwellers migrating to rural areas, or to manufacturing industries searching for more profitable or more suitable locations for their business. In such cases, external (expert, managerial) types of knowledge dominate the process of development. The WP7 Comparative Report suggests that a process of change towards either a paternalistic/rent seeking/extractive economy (characterised by a deep embeddedness of natural resources in a specific locality forming the "rent-seeking" strategy because of their non-replicable character), or towards a clientelist/dependency/manufacturing economy (where income to the region primarily flows from external sources) or toward a preservationist/entrepreneurial/service economy type (drawing its income 'mainly from the valorisation of local resources') are associated with different knowledge dynamics and different combinations of the various knowledge types. In the first case, lay and expert knowledge forms seem to separate rather than interact: lay/local knowledge dominates the discourse and forms the frame of the strategy stressing the significance of local natural resources which need external markets to make the extraction profitable, while expert and managerial types of knowledge seem to be part of the external forces influencing and developing demand for the extracted goods. In the second case, however,

the situation seems to be different. The strong domination of external capital supporting and developing manufacturing industries results in the domination of managerial as well as expert knowledge and the marginalisation or even elimination of the tacit/lay/local one. Only in the third case might we observe an intensive interaction as well as coexistence of various types of knowledge. The valorisation of endogenous, local resources, both natural and cultural definitely requires the extensive use of lay/local knowledge. A at the same time, such a valorisation requires managerial and expert types of knowledge as well in form of entrepreneurial culture, marketing techniques, promotion of the area, and so on.

The case studies in CORASON support the argument that in all the rural contexts studied, local knowledge is an important part of the analysed projects but only in the context of other types of knowledge. Scientific (e.g. new environmental) knowledge can be identified as a tool to revalorise local knowledge, and to make it a part of current reality. In such cases, in fact, we have to talk about a kind of a hybrid structure in which important elements of traditional and scientific knowledge co-exist and interact with each other. Such a situation is discussed in the Swedish country report, where local knowledge together with a variant of expert knowledge has been the dominant form underpinning local non-agricultural developments: 'Dominant knowledge forms in both projects are variant kinds of expert and local knowledge, however, less scientific knowledge' (CR Sweden: 20), and 'Combined with that and building further on the strengthening of tacit knowledge, projects such as these analysed can be seen as part of process of re-building that has been described in ecological research as: "enhancing social-ecological memory"(...)" (CR Sweden: 21).

The best opportunity for creating such a hybrid (but not mechanical) structure seems to lie in the role played by individuals who possess on one hand scientific knowledge but on the other, also have some experience of the culture of any particular community or area. Another possibility, more apparent in the case studies, is the combination in a project of different actors possessing local/tacit, managerial and scientific knowledge, where all have equal access to the decision making process.

3. Rural Sustainable Development

In many cases analysed in the country reports we can see a kind of clash between the so-called traditional agriculturally-based and an evolving post-agricultural image of sustainability in the rural setting. However, an economy based solely on agriculture is evidently not sufficient, in contemporary conditions, to drive sustainable development. A key factor in understanding the potential for RSD is identifying the effects of the discourse of development on the changing knowledge base, as seen within policies and management practises for the development of non-agricultural projects.

The extent to which knowledge about local issues is shared by external actors might be identified as another important factor shaping the possibility of sustainable development. Serious lack of such knowledge inside national and regional institutions concerning the need for peculiar functioning of small businesses in remote rural areas might be perceived as a serious obstacle in the sustainable development process. Ass the Scottish

country report emphasises, 'This would suggest that there is a knowledge deficit *within* those institutions, which in turn affects local businesses in terms of the quality of advice offered, and the expectations that businesses can generate profit, invest in technology, expand and employ new people in the same way that urban businesses can" (CR UK: 15). If local peculiarities are not recognised by external actors the development strategy will not be effective in the particular context.

Another issue to be considered is the economic dimension of the idea of sustainable development. Sustainability does not seem to be rooted in the logic of profit but, instead, in the logic of diversity. The diversification of economic activities does not seem yet to be considered an important dimension – where it happens, it is connected with the financing sources rather than being the outcome of planning. This is clearly illustrated by the Spanish case study of a thermal dependent spa, where the report says that 'the Montajenos' thermal centre is highly dependent on ... tourism, and this depends on the annual public plans for this type of services: even when these plans are solidly consolidated, it is necessary to think of a possible scenario where they could be cancelled in order to face public health deficits' (CR Spain: 25). Therefore the sustainable character of the rural area development remains uncertain, as the following conclusion notes: ' it is difficult to know in what degree the rural sustainable development has penetrated in the analysed territories' (CR Spain: 32).

Local/traditional knowledge seems in some cases to be an important factor of sustainability. Its particular significance in this context has been rooted in its very connection to the particular place, particular community, particular individuals, and in strengthening their identity; 'Selling tradition only seems to work in the authentic, original environment of the product; tourists need to experience of the real *place* that encourages them to buy' (CR Hungary: 17). In existing discourse concerning the problem of the development of a non-agricultural rural economy, importance has been given to the improvement of cultural capital among rural populations looking for alternative sources of income. The special value of natural environment and a landscape and the increasing mass tourism in post-modern world might become important frames for the local discourse and preferred local practises. Such a phenomenon has been clearly caught by the Greek team stressing that: "(...) due to the rapid development of tourism in the area, people are obsessed with tourism thus neglecting all other non-agricultural opportunities (...)" (CR Greece: 14).

What type of non-agricultural economy might be the most suitable for the rural sustainable development? There is no one solution, as illustrated by the variability of our case studies, but the most likely appears to be economies based on the valorisation of local resources (including local knowledge), using other types of resources and knowledge as well. In their simplest form projects should perform sustainable and maintainable economic activity on a household and community level with the inclusion of local and lay knowledge in the decision making process on every level of discourse. Only such an economic development might become an 'organic' part of community life and, at the same time, an aspect of its sustainable development, creating entrepreneurial regions and communities as well as service economies.

II.1.6. WP8 - Innovatory Economic Developments overview

The aim of WP8 was to identify the potential and conditions of transfer of lay knowledges for sustainable rural development which takes an 'innovatory' form. The core of the study is an analysis in the study areas of the preconditions, knowledge forms, skills and capacities used in innovatory economic projects. Country reports provided case studies supplemented by analysis of available policy documents, and interviews with important stakeholders in the area. The first question asked in this work package is what is innovative? What does innovation mean in the rural context? Then we discuss what kinds of innovations support rural sustainable development, how are innovatory development projects and activities created, supported, maintained, or spread, and what is the role of government and state in the innovation process?

Neither 'innovatory' nor 'innovation' is a homogeneous term; our research found different interpretations and implementations across countries and between participants. Actors in each locality negotiate their meanings, in relation to intervening structures, understandings and power relations. Here, we discuss the discourses around innovation in different national and local contexts, the main actors involved, the knowledges drawn on in innovatory projects, and the innovative strategies which seem to have most potential for rural sustainable development.

1. Innovation

The Comparative Report for WP8 takes LEADER projects across the study locations as the point of departure for analysing negotiations of the meaning of innovation. Non-LEADER case studies were also included, where innovation was driven by development agencies or external actors with particular passions and interests. The Report examines how alternative meanings for innovation were deployed and promoted by different interests in the projects, and what knowledge forms the projects drew on and used. National policy approaches to innovation privilege technological and scientific innovations, but this is a difficult concept for many rural development projects which often involve traditional rural industries, such as agriculture and local crafts.

Innovation is increasingly recognised as a key driver of economic growth, and is at the heart of theories of the knowledge economy. It has been identified as a key tool for achieving regional development, and the development of innovation policies is frequently held to be central to improving a region's competitiveness. Theories of innovation have generally focused on innovation within firms, looking at technological, product and process development. Innovation in this perspective is constructed as a scientific and technical sequential process driven by experts (the linear model). In this discourse, innovation originates through specialist research and development activity, with scientific knowledge as the key driver of change, while other forms of knowledge-creating activities are ignored. The term is most often used in conjunction with the private sector, developing new products and production processes. Thus the key actors within the

innovative process are assumed to be primarily private entrepreneurs and small and medium size enterprises, working with research institutions such as universities, to share knowledge and improve research and development activity within firms. National governments across many of our case studies position themselves as facilitators, creating the conditions in which business and scientific and research institutions can work in partnership.

However, some recent studies of innovation have emphasised the role of learning, rather than scientific discovery, within the innovation process. 'Learning need not necessarily imply discovery of new technical or scientific principles, and can equally be based on activities which recombine or adapt existing forms of knowledge' (Smith, 2000: 10). This perspective assigns a greater role to non-technical forms of knowledge, and to social capital which assumes a significant role in theories of social innovation, that is referring to innovations in agendas, agencies and institutions that lead to social inclusion. Innovation systems approaches looks to the institutional and social environment for innovation, examining the relationship between institutions, the legal and policy framework, the education system and the role of social capital and tacit knowledge in generating, using and diffusing innovation. In this case iinnovation does not refer only to products or technological processes but also includes social processes and approaches to economic development, social organisation, education and so on. Research for WP8 showed how within LEADER group activities, 'innovation' does not necessarily mean creating 'new' products and processes, but can include bringing in existing products and processes that are new to the region, institution or company concerned.

That innovation has become a feature of political discourse across our case study countries is arguably a result of the growing influence of the EU in shaping national economic development strategies. The requirement to be innovative that is embedded in programmes such as LEADER and the Structural Funds have led to the concept being 'imported' into most countries. LEADER has been identified as key drivers of innovation in Germany, Poland, Hungary, Scotland, North Italy and Portugal. However the term has been accorded varying degrees of significance in the different case study areas, which have interpreted the term in different ways.
Innovation relies heavily on knowledge transfer and learning. Innovatory activity is most likely to develop in situations where local social capital is strong relative to the enterprise culture, linking non-agricultural business practises, rural economic diversity, entrepreneurial activity, and regional educational activities. The Irish country report studied the relations of the Tipperary Institute (a third-level local educational college) to rural groups and to the local business community, and found that it acted simultaneously as a space of education and a space where innovatory discourse can occur involving members from many different groups and associations in the area.

The Scottish team observed that in LEADER, 'innovation' was a term that rural actors find off-putting, being loaded with the expectation of completely new and successful projects. Lay actors were happy to argue that their project ideas were 'new', but would not go so far as to call them 'innovative'. Indeed, country teams reported that the concept of innovation is rarely explicitly discussed by rural actors, and for many of these, the

consequence was that 'innovation' was not an explicit aim of their projects. Rural groups sought to achieve new forms of organisation or develop new products and services, but the fact that the outcomes or processes could be called innovative was a secondary secondary concerns. In other words, innovation seemed to occur while lay actors were trying to achieve other objectives. While innovation is an explicit aim of policy, it does not seem a significant objective for local actors.

2. Actors

The WP8 research explored the ways in which innovative activities were understood by lay actors in their local case study areas, and how innovative activities were created. Local actors in these studies areas understood innovation to be concerned with the development and production of products and processes that were new to their area and which could diversify the local economy.

Few local actors seem to engage with government and EU policies on innovation, which seem to have little direct impact at the local level. Furthermore innovation is often driven by actors from outside the locality – government development agencies; and actors from other countries, regions and cities. Consequently, the local actors interviewed in our case studies did not often talk about their projects in terms of their capacity to be innovative; rather, they talked about the need for competition, change, experimentation, and entrepreneurship.

In many of the cases studied, innovative activities were introduced by actors external to the case study areas. This occurred in both LEADER and non-LEADER case studies. In one Hungarian case study, for example, a LEADER-type approach was introduced by a regional programme (Regionen Aktiv) with the objective of strengthening social capital through intensive information exchange, collaboration and network building. In only a few cases – such as the two co-operatives studied by the Spanish team – was innovation driven by the indigenous population. In Hungary, the idea for the Telepesek Social Museum came from the Telepesek Social Museum Foundation; in Poland, the Native American Tourist Farm was driven by two actors new to the area; and in Scotland, the Gaelic college Sabhal Mòr Ostaig (SMO) was the brain child of a non-local merchant banker.

3. Knowledge

Most projects involve a mix of expert, managerial and lay knowledge, all three being essential to the successful implementation of projects. With so many different types of knowledge involved in projects, it is inevitable (and appropriate) that knowledge will be transferred between different actors involved in projects, and between projects and actors external to those projects. In some of our case studies, knowledge was shared formally with other actors. In the majority of our projects, however, knowledge was shared more informally, through social networks or ties of reciprocity and exchange ensuring knowledge transfer between actors and the adaptation and changing of the knowledge structures among all the actors participating in the projects.

The capacities of regions themselves to ‘learn’ from external knowledge sources is important, as tacit knowledge is more creative if it is not in isolation from codified/accredited knowledge: the two working in combination helps competitive advantage. But access to the decision making process by different forms of knowledge require that power relations within the project and between project actors and outsiders are managed in open and flexible ways. Expert knowledge is generally required at the outset of projects, and often provided the initial spark - various areas of expertise were central to the establishment of a range of projects studied, in relation to education, energy production, engineering projects, wildlife projects, bergamot production, olive oil production, and the history of Jewish refugees in the locality, for some examples. The involvement of government actors, politicians and development agencies usually came later, after the idea for a project had been created, yet the part played by these institutional actors was also often vital to project success. The managerial and bureaucratic knowledge provided by these actors was important, particularly in negotiating local legislation and securing funding. Thus, several different types of expert knowledge were involved: both managerial knowledge (the skills required to run projects on a day-to-day basis, including management of human and financial resources, grants, legislation, and the bureaucracy, rules and operating procedures of various government agencies), and scientific knowledge of both natural scientific and humanities types.

A number of country reports also highlighted the crucial importance for innovatory development of certain individuals with visionary dispositions, and of what one could call informal networks. For example, in the case of the Härad LAG (Sweden), the involvement of the project manager with local development was striking – he was not only the founder of the LAG, but also chairman of Hultafors Local Interests Organization, project manager of Marketplace 7-Härad, and a member of Sjuhärad LAG’s steering committee, in addition to hoolding a full-time job. On the other hand, several country reports argued that rural lay actors do not have the capacity to respond to the challenge of innovation, because they lack human capital and knowledge resources to develop or capitalise upon innovative projects. In Portugal and Greece, this was perceived to be the result of a lack of relevant knowledge and skills. In Scotland, skill shortages were also an issue, but time was identified as a constraining factor particularly in LEADER projects. Interviewees argued that local residents simply do not have the time to develop and run small-scale projects, as these are undertaken on a voluntary basis. Several teams also noted that rural areas lack key services, and have prioritised meeting these basic needs over and above pursuing innovative projects and activities.

All the case studies indicated that the support of local actors is essential to the success and sustainability of innovative projects. Specifically, LEADER requires the involvement of local and lay actors in the development process, and most projects funded by it were proposed by individual members of the local communities. In contrast, in the German study area of Mecklenburg-Vorpommern, a clientelistic and paternalistic social milieu prevented the LEADER LAG from initiating any substantial innovation in terms of local action. As a result the LEADER programme failed to improve local debate and stimulate deliberative actions or to strengthen existing networks, and was not able to

promote any new models of cooperation. The supposedly 'bottom-up' approach was implemented instead like a mainstream programme, and it was mainly used by the local elites in their own interests. However, if local support is essential, the extent to which projects rely on lay knowledge is less clear. Many of the projects studied aimed to share expert and specialist knowledge amongst lay actors to transform the context for particular activities in localities – approaches to environmental protection, the production of a particular agricultural product, the preservation of traditional skills – but neither the design nor the management of these projects depended on lay knowledge.

Innovatory rural projects aimed at creating products and services that are new to the area, and encompassing both traditional and non-traditional rural activities, can also generate conflict. In both Spain and South Italy, for example, rural development co-operatives branched out into production of organic olive oil and bergamot respectively. The development of these products allowed the co-operatives to exploit new markets, create new quality standards and develop new supply and production chains. However, while such innovation was driven from the bottom-up in Spain, there was still some resistance to change from other farmers in the co-operative. This simply illustrates that although external factors are forcing rural societies to change, these changes, regardless of the inclusion of the local community in the decision making, are not always welcome.

4. Innovative socio-ecological strategies for rural sustainable development: RSD and rural society

One task of the Comparative Report for WP8 was to establish the potential of innovatory projects for future sustainable rural development. This includes assessing the impacts of technological change on local societies, and asking what kinds of innovations support rural sustainable development. In the knowledge economy, innovation is now a key tool for regional development. How can this include local cultural resources and identities as integral to a dynamic, 'progressive' and flexible approach to development?

Beyond their stated objectives for new products and economic diversification, the projects in many of our case studies also achieved innovation in social processes. These included the creation of new networks and social relationships, the strengthening of local identities, and the creation and dissemination of knowledge. These social forms of innovation go beyond both local actors' own definitions of the term and those of policymakers. In some cases, innovative activities in our case study areas were developed by individuals with a particular passion or vision. While the number of such actors was small, implementing their ideas in practice necessitated the involvement of a number of different actors, which created conditions for cooperation, new networks and relationship-building in rural areas, in itself often very innovative. Governmental actors can facilitate these developments, as they are able to build on and bring together their existing networks of contacts and institutions, and to negotiate between these institutions and local residents and businesses, and in several case studies, the presence of even one supportive governmental or political actor was influence in the success of projects. Successful projects create and deepen networks and relationships between different local actors, between different institutions and between institutions and communities.

Furthermore, some of the projects have had a profound impact on relationships *within* communities, building social capital, increasing local people's symbolic identification with themselves and their communities, and creating and reinforcing collective identities.

Contrary to policy approaches to innovation, which privilege technological and scientific innovations, many of the case studies for WP8 involved innovations within traditional rural industries, such as agriculture and local crafts. Such projects often aim to link rural and agricultural activities with new sectors (such as angling and tourism in Sweden, or linking traditional handicrafts with job creation and tourism in Germany). They demonstrate that these activities are not necessarily anti-modern and in need of replacement, as policy approaches sometimes suggest, but that they have value in supporting local economic development and local identities. They make good use of existing skills and knowledges within communities, and clearly have value as profitable, innovative and rural approaches to development..

II.1.7 WP9 – Sustainable Resource Management overview

WP9 asks how the concept of Sustainable Resource Management (SRM) - or something which approximates to it - is defined and understood by actors engaged in rural development. We started with a distinction between 'nature conservation' (the subject of WP5) and 'sustainable resource use/management'. Conservation can be understood as a non-productive use of natural resources, while SRM concerns maintaining the regional resource base by sustainable use (for productive purposes) and management.

The Comparative Report drew some further distinctions between different understandings of 'sustainable resource use' emerging from the national reports, as shown in table II.1.1 below.

Table II.1.1: Different conceptions of resource use/management

Conservationist	*nature protection*; protection of nature from human use or exploitation
Conventional	*Maximisation of yields - economic resource use;* resource exploitation for economic/production purposes without reference to sustainability
SRM1	*Oriented towards the state of the resource - resource renewal;* management to ensure the renewal of a resource as it is used, harvesting only the periodic growing quantity but not reducing the resource/capital stock, e.g. sustainable forest management, energy consumption reduction (this meaning associates SRM with Ecological Modernisation)
SRM2	*Oriented towards human welfare - 'quality of life' RM;* the resource is managed to improve some conception of local quality of life of the

	human population, interpreted with reference to utilitarian (access to water, fuel), aesthetic (scenic landscapes, non-polluted lakes etc), or welfare (health, wellbeing) interests
SRM3	*Oriented towards both resource state and human welfare - livelihood RM;* management of a resource so that it will provide maximum sustainable local livelihoods, giving priority to local resource users
SRM4	*Balancing the interests of resource-user groups - participatory RM;* the resource is managed through participation or co-operation of all who have a 'stake' or interest in its being sustained (including local resource-dependent livelihood actors, producers and consumers, scientists, global actors, possibly resource-dependent animals as well) (This can be seen as a special case of SRM2)

In most of the national reports, the meaning which is mainly used, or assumed from policy discourse and government strategies, is that of SRM1 above; SRM2, particularly in its more utilitarian aspects, was also found. SRM3 was discussed less often, and SRM4 primarily as something absent in practice. However it has to be emphasised that the concept of SRM, as such, emerged in the national reports as a relatively underdeveloped one. The comparisons and contrasts which could be made across the reports contributed more to opening up arguments over the concept of Sustainable Development. Much of the discussion in the Comparative Report on that issue has been used to develop the synthetic analysis in Part II.2 below. In fact WP9, as the final workpackage, was designed to advance the synthetic analysis, by encouraging the national research teams to reflect on and describe the way in which a discourse of sustainable use of resources has entered into their national public spaces (to the extent that it has), as much as to carry out further project-based research.

The Comparative Report also considered how the concept of a 'resource' is understood in different national and local contexts. The national reports approached cases of 'resource management' mainly by investigating *sets of socially organised practices* in regard to natural (and sometimes cultural) resources. In the research itself, as it tried to grasp the reality of the cases studied, we found that the analytic distinction between natural, human and social resources (like the analytic distinction between three dimensions of sustainability: ecological, social and economic) could not easily be maintained.

Here we selectively present two main themes which emerged from the comparative analysis of the national reports. These are: (1) the national discourses, as evidenced in policy statements, strategy frameworks, legislation etc., about sustainable resource management, in an attempt to trace the 'career' of this concept in the different countries; and (2) the case studies conducted as examples of sustainable resource management in the different national contexts, and the conclusions drawn from them, focussing in particular on what these tell us about knowledge processes and dynamics. Some national teams produced new case studies for WP9; others (e.g. Greece, S. Italy, Germany)

returned to and re-analysed existing case studies from this new perspective; while others again focussed on a particular rural resource or resources (e.g water, soil, renewable energy sources) and on the national or regional environmental and resource management policies relating to them. This diversity of choice in researching the topic was explicitly allowed for in the Input Paper for WP9. (For further information on the national team reports, please see the WP9 Comparative Report in Appendix III).

1. National discourses about sustainable resource management

The national reports show that Sustainable Resource Management (SRM) is not yet an established concept in their national policy discourses. For this reason, most national reports discussed rather the discourse of Sustainable Development, within which SRM can be seen as both a more specific or 'operationalised' concept, and simultaneously a less standardised one. Whereas Sustainable Development is unfolding as a guiding idea in governmental documents and public policy processes, ideas about SRM seem to be more influenced by scientific, environmental movement, and NGO-guided discourses. In many cases, something close to the idea of SRM, though rarely named as such, is operationalised in older or already existing sector-specific programmes for resource management such as the agri-environmental programmes of the 1990s or more recent programmes for Integrated Rural Development. The mutual implications between such programmes and more general strategies for Sustainable Development are not spelled out in detail in national policy documents.

The most striking feature of both SD and SRM discourses at the national level, as evidenced in the national reports, is their heterogeneity. Conceptual similarities across national strategies conceal different interpretations, discourses and practices. We can identify some homogeneity at the level of national policies and strategies, due to the influence of both EU policy discourses and global policy discussions and programmes such as Agenda 21, particularly in the widespread use of a 'three-dimensional model' of Sustainable Development, where social, economic and ecological or environmental dimensions are differentiated. This has become the dominant way in which the concept is interpreted in many of the national strategies for Sustainable Development of the EU countries. Nevertheless within state discourses, heterogeneity is also evident. While the classic three-dimensional approach is used in half of the CORASON countries (Germany, Greece, Ireland, Portugal, Spain, Sweden), in other countries (Norway, Italy, Hungary) the dominant interpretation of Sustainable Development is as environmental sustainability, while in a further subset the national strategies add further dimensions which they see as important (cultural sustainability, in the Czech Republic and Poland; community governance in Scotland).

The concept of Sustainable Development has entered into national discourses at different times in the different countries, and encountered very different types of political system and division of functions between national, regional and local levels, and different traditions of civil society involvement in public policy. The adoption of interpretations and discourses is refracted through specific national cultures, historical experiences, and political and group interests within the society, and the concept lacks a standardised meaning. Many actors, including the EU, have identified regional and local institutions

as key actors for sustainable development, particularly when this is understood in environmental terms as matching the use of natural resources with the regional resource base and the carrying capacity of ecosystems in the area. However, the CORASON research found that regional and local administrations are not the ones currently driving the discourse or implementation of Sustainable Development programmes. With the exception of Spain, where regions are powerful legislative institutions, regional and local level institutions use the discourse rather mechanically or mainly as political rhetoric; the driving force behind the discourse is extra-local, and often, as suggested above, extra-national.

When we look outside government policy and strategies for Sustainable Development (e.g. to NGO and civil society discourses, and to sectoral rural development programmes) the absence of a standardised concept of SRM is even clearer. An important general conclusion from the comparative analysis is that discourses about SRM appear to use one or other of two distinct, emergent concepts. On one hand, there is an 'institutional' model, primarily addressing Sustainable Development rather than SRM directly, which in most of the countries is increasingly formed through an Ecological Modernisation discourse, emphasising technological solutions to resource problems. This usually recognises social, economic and ecological dimensions, as equally important or otherwise, but does not specify the relations between and priorities of these different dimensions in ways which would enable interests (economic, social, cultural) and resources to be managed together. On the other hand, there is a local, livelihood-oriented model and practice of SRM. This takes a more diffuse or 'holistic' form oriented to the creation or maintenance of 'sustainable livelihoods'; starting from the assumption that a sustainable use of natural resources is embedded within, enabled and constrained by other social, economic and human resources, it implies strengthening the power, rights, knowledge and interests of local resource user groups and rural populations. However, the interests and initiatives of those using this second model are generally limited to being ‘consulted’ in the processes of policy formation but not included in decision-making and implementation processes.

The country reports thus raised an important question: who has 'definition power' for SD or SRM - scientists, political actors, local resource holders? Not all the national reports identified open controversies over definition power. But rather than showing that a societal consensus can sometimes be achieved around policy, or that there is some 'trickle-down' diffusion process enabling an externally-driven idea to become slowly integrated into the rationalities and values of local agents, this seems better understood as indicating country differences in the stage of advancement of the Sustainable Development policy process. The absence of an 'interpretation fight' suggests that the sustainable development discourse has developed quite recently in a country and is still at the stage of taking in an international rhetoric and debate which has little impact on national policy; the emergence of such fights suggests that the concept is beginning to be implemented in ways which affect interests of stakeholders and political actors. In spite of the new debates around governance, the adoption of a particular understanding of Sustainable Development for use in rural development policies has been dominated by political actors with formal mandates, legal decision-making powers and formal roles in public policy processes, whether they do this in consensual or controversial ways, by

neglecting or by prioritising it. There is less room for civil society groups and institutions to have their ideas heard. In the programmes for rural development (agri-environmental, LEADER, nature and species protection, Integrated Rural Development) through which we can see a discourse of Sustainable Development for rural areas unfolding, most countries have not experienced a devolution of power, roles and responsibilities which would systematically empower regional and local institutions and actors; rather, these actors and groups are co-opted through ideas of participatory management' into the mainstream policy as this is understood by the dominant actors and institutions.

The Comparative Report argues that a 'differentiating adoption' of Sustainable Development and SRM, seen as a counter-trend against the adoption of a standardised interpretation diffused by EU policies and global discourses, is in fact congruent with the rationale of both concepts (and particularly SRM), which require regionally and locally specific interpretations and applications based on the given situation.

2. Case studies of SRM in the national reports: knowledge implications.
Examples of differences, rather than an emerging dominant model or practice for SRM, are what principally characterise the case studies for WP9. One relatively widespread practice was the use of some sort of 'Park' model as a socio-organisational structure for implementing SRM. This model can have a range of different functions and hence associated practices: for example, to concentrate EU or national funding for development within a particular territory; to decentralise governance; to facilitate integrated regional management; or to find an instrument which can be effectively used by governmental agencies to create zones of ecological sustainability. What can be seen from the studies is a gradual movement away from the use of protected areas to conserve resources through non-use or limited use, towards ideas about combining resource protection with resource use of various kinds (see also WP5). In these limited and controlled areas, SRM may be more easily enforceable than in the majority of rural areas where land use is mainly dependent on private property; it is less easy to identify efficient instruments for SRM on privately owned land.

In that context, the CR discusses the relative effectiveness for institutionalising SRM of normative interventions (legislation, education, persuasion) and financial, particularly market, incentives. A number of national reports (e.g. the Polish Report) show how concerns to increase product 'quality' in order to increase market access lead to some form of SRM (see also WP6). These can also give rise to new actor coalitions for sustainable development at the local or regional level. However, to the extent that they bring these actors into contact with and under the control of global retail networks, it would be important to investigate the impact on natural resources at the local level of the practices of standardisation, standards maintenance, and profit seeking of the global companies involved over a longer time period.

In many of the countries included in CORASON (with some significant exceptions: see WP4) there is a relatively weak tradition of civil participation among rural actors, and weak development of a rural civil society. This can slow down progress towards participatory forms of resource management, or mean that these have to be created

through political decisions and with external support. The extent to which power is devolved in the different countries also affects the strength of civil society at the local level. However, power devolution does not correspond closely to the different constitutional traditions of state organisation and we cannot simply conclude that federalist forms are more open than centralist ones to the idea that SRM requires participation and involvement of civil society. Despite support for devolution of power and new governance forms, CORASON research found hardly any examples of local resources whose management was fully in the hands of local resource users or local communities. Compromise forms of 'participatory SRM' mean that governmental actors are always involved and can exercise influence over decisions. Moreover, it found few cases where there were debates about linkages between local resource management and established systems of public planning, especially physical and municipal planning which have such a significant influence on the use and management of land and natural resources. Land-use planning does not provide sufficient guidance for SRM (see also WP3): and there are rarely any linkages between municipal planning where most of the experience with local, resource-use related, participatory forms of management are found, and rural development programmes, so that relevant knowledge cannot be accumulated and shared.

In relation to knowledge forms in SRM and their interaction in rural development projects and processes, the case studies suggested that our initial categories (expert, lay or local, managerial) were not very illuminating. This is not only because SRM projects are characterised by a blending and overlapping of knowledge types in practice, but also because the typology does not help us to describe the subtleties of knowledge problems in rural resource management. The CR for WP9 argues that the key question to be asked here is: how do different projects or programmes understand the issue of *how to deal with knowledge needed for SRM?*

This way of thinking about the research produced a number of different paradigmatic examples:

- the 'incorporation of knowledge' model: different forms of knowledge can be used to reinforce each other by combining their specific qualities (cf. the Spanish, Hungarian, S. Italian cases). In practice, this means a focus on re-formulating and strengthening local knowledge, understood as that of local producers, embedded in and circulating through knowledge-diverse social networks.
- the 'elitist' model: this relies heavily on scientific and other expert knowledges and devalues and suppresses local knowledge and experiences (cf. the Irish, N. Italian cases). Here, power relations (definitional power and decision-making power) are decisive. If the development process is controlled by hegemonic power-knowledge coalitions of scientific, bureaucratic and local ('project class') elites, scientific knowledge will dominate and managerial-bureaucratic expert systems will control the implementation process. This provides an ideal terrain for ecological modernisation approaches and for the exclusion of local resource users and their knowledges.

- the 'knowledge-embedding' model: this understands knowledge systems as socially structured and operating in an already-existing social context organised by power structures, discourse structures, social groups, civil society, property rights and ownership of resources. From this perspective, SRM is a power-dependent and conflict-prone process that needs to be organised as a process of power-sharing, conflict mitigation, and participation of different groups (cf. the Scottish, Swedish reports, but this conclusion is supported by most of the national case studies).
- The 'political' governance model (cf. the Polish report). This also assumes that knowledge systems are dependent on power structures, but primarily sees the transition towards SRM and sustainable development as requiring changes in political structures, particularly a devolution of power to regional and local levels
- One further model, sometimes called 'adaptive management' or 'polycentric management systems', was not identified from the CORASON research: it is an external model derived from paradigm changes in ecological thinking, but does converge with many of the results found in our case studies. Understanding ecological processes as dynamic and changing rather than needing to be stabilised, it centres on the idea of building SRM systems locally, involving local resource users and producers in core management roles and practices alongside experts, through which a co-evolution of relevant and needed management knowledge can be achieved.

II.2 Synthetic analysis

A synthetic analysis of the CORASON research material could go in either of two directions: vertically (integrating case studies and regional analyses within each country in order to compare across national rural regions) or horizontally (comparing across the case studies). Here we only attempt to do the second: some vertical integration has already occurred as the workpackages proceeded, as can be seen in the case study reports for WPs 7, and 8, for example, and in any case, while we anticipate that more country-level analysis by the participating teams will emerge from the CORASON empirical material, it is worth repeating here that CORASON does not attempt to carry out a comparative analysis of either countries or regions. The regions and localities studied in CORASON were not selected for their 'representativity' - of forms of rural life at either the national or a transnational, European level. They were chosen because they were known to the research team in each participating country, and particularly because they were known to contain one or several development projects which were of interest to CORASON. Our interest has been in trying to draw out some characteristic *processes* found in rural development projects - specifically, processes around the use,

dissemination, hierarchisation etc. of different forms of knowledges, in contexts where project actors are working with a goal (however understood) of realising a form of local development which is sustainable within a rural setting. Thus, to the extent that we can generalise from our research, the generalisations relate to processes within development efforts, rather than to types of local economy, society, or cultural distinctiveness.

Our synthetic discussion approaches these processes by addressing three issues which seem the most important outcomes from the research. The first is the nature of contemporary rural society in Europe. This discussion helps to establish a fuller contextual understanding of the processes which are our main focus. But it also develops an important issue in formulating programmes or plans for rural sustainable development, namely how these can negotiate the high level of diversity which appears to characterise rural localities in Europe today. The second section tries to pull together some of the more important aspects of Sustainable Development as it is understood with reference to rural areas and groups, and by a variety of different actors, This part of the report draws heavily on the Comparative report for WP9. The final section asks what we have learnt by deciding to focus on the use, circulation, exchange and competition of knowledges as a way into understanding how sustainable development is being interpreted in actions for development in rural areas.

II.2.1 Rural Europe today

Rural areas across Europe today are the site of a dialogue or interaction between homogenising and differentiating forces. While pressures towards homogeneity, coming both from an increasingly globalised market and from EU and national policy goals, are undoubtedly strong, the most striking impression gained from our research is that in responding to these pressures rural locations continue to produce and reproduce diversity. This in turn raises some questions about rural development policy, and about attempts to identify and manage 'the rural' as some sort of unified object for intervention.

Homogenising processes in rural areas

Three macro-processes are widely thought to work to reduce differentiation, both within rural areas and between them and other social settings, operating at different levels of scale: globalisation, 'Europeanisation', and national-level planning policies and practices.

Globalisation is widely understood as a process of integration of people, goods and economic activities into networks of exchange which are increasingly stretched across space. In rural areas, the impact of globalisation is most probably strongly felt in relation to agriculture, which is increasingly inserted into global food trade systems; increasingly vertically integrated into markets organised by the interests of food processing industries and retail corporations, and increasingly regulated by global policy-making bodies such as the World Trade Organisation, the Codex Alimentarius, and transnational food safety authorities such as the European Food Safety Agency. 'Farming is now truly global' (Schmied 2005: 3). Globalisation is also often seen as a process which homogenises tastes in food and patterns of diet, standardising consumer demand and in turn standardising the output of those areas and economies which depend for

survival on providing what consumers want. However, globalisation also shapes the shifting locational pattern of industrial production, for example introducing industrial employment into previously agricultural or 'extractive' economic regions, and it opens up new opportunities in service provision, both for those types of service activity (e.g ICT) which are, in theory at least, locationally indifferent because they can transcend space or distance, and for services which depend precisely on spatial difference and the exchange of location, such as global tourism.

However, the extent to which globalisation homogenises rural areas has been a constant topic of debate among rural sociologists in the past two decades. Many argue that it tends towards increased heterogeneity rather than homogeneity, at least at an inter-territorial level. The transnational food and agricultural economy appears to be organised not globally so much as in separate transcontinental systems (Fold and ? 2005) which differ in their regulatory practices, in the commodities produced and exchanged, in the political and economic relations between food producing and food consuming nations, and in the extent to which culinary items and customs are borrowed, exchanged and shared between them. At a more local level, rural differentiation persists and even intensifies as economic globalisation alters the pattern of comparative advantage between areas: localities with the 'advantage' of a cheap and unskilled labour force find themselves undercut by even cheaper labour markets as international capital moves around the world; localities with previously undervalued natural resources (for example abundant water supplies or deep-water coastal inlets) discover a comparative advantage in attracting new chemical and other high-tech industries which need access to such resources; agriculturally marginalised and de-populated areas find themselves attractive to a new type of tourist in search of 'unspoiled wilderness.

While regions of the global South still display rural emigration and urbanisation, many areas of the global North (including Europe) are experiencing a trend of counter-urbanisation, facilitated by economic integration, increased mobility, and scientific and technological advances (Gkartzios and Scott 2005). Counter-urbanisation tends to be selective of the rural regions brought into hosting large numbers of 'incomers' (these are generally concentrated in those areas reasonably close to or accessible from metropolitan areas), but the extent of movement of populations back into rural settings across Europe, and the different types of people who move and different reasons for moving, calls into question the very concept of 'rural people'. Differentiation is increased, then, both within rural localities and between them. Nevertheless, although rural areas differ in their 'response to' or 'treatment by' increasingly globalised economic systems and markets for goods and labour, the extent to which cultural globalisation may be homogenising rural lifestyles and consumption patterns and erasing rural-urban differences should not be underestimated.

Europeanisation, like globalisation, may be considered both an economic trend (integration of economic activities across an expanded territorial area) and a regulatory phenomenon (the emergence of new regulatory institutions with an expanded arena of legitimate influence or control). Both trends shape the development trajectories of rural areas, but from the perspective of homogenisation it may be the regulatory dimension

which is the more important. Rural development policy has moved over the past half century from a rather prescriptive and unidimensional model of preferred rural change (the ‘agri-industrialisation’ model described earlier) to a more flexible and open approach which offers broad guidelines (e.g. integration, of both economic activities and their ecological effects, in the planning stage for development) while recognising the significance of local specificities in the implementation phase, Also, as the CORASON research shows, even where there is homogenisation of development policy discoursers, this does not necessarily lead to homogenisation of local and regional practices. In II.2.2 below we discuss this further through a more detailed analysis of both rural development and sustainable development policies and programmes. However, while rural development as a sectoral policy may interact with rather than suppress diversity, other broader regulatory processes operating at a transnational, European level, from spatial planning to employment law, nature conservation practices and food hygiene requirements, might be considered the more influential in reducing diversity between rural areas and within rural practices. Equally important to consider here may be very broad general policy frameworks of meaning which shape policy, such as are implied by the term ‘Sustainable Development, or by the term ‘Knowledge economy/society’.

At the national level, the interplay between diversity and homogenisation is clearer. Again, we discuss this more fully below, in II.2.2; here, we only note that national regimes and cultures exhibit interesting differences in their discourses of rurality and of rural-urban difference, which can then be translated into the planning and development policies at the national level (see for example the discussion of bureaucratic-managerial, academic and lay or popular discourses of rurality in Munkejord 2006). This may tend towards a homogenisation of rural areas within the national territory while simultaneously reproducing difference between national territories in the form which rural society takes.

Rural diversity in the CORASON research

As stated above, the continuing diversity of the study areas (both RRAs, and particularly the LIAs) used in CORASON is one of their most striking features. This is confirmed in other recent studies, which suggest that differences between rural areas often appear to be as great or greater than anything that unifies them, and that it is almost impossible to come up with a rural typology which can adequately grasp these differences. 'Rural economies are quite varied, insofar as they are grounded in such different bases in agriculture, fishing, forestry, mining, tourism etc. Even within agriculturally dependent regions, for example, the broadest contours of a rural economy will vary with the specific commodity mix of that rural place' (Marini and Mooney 2006: 93. Another recent commentary speaks of the 'persisting diversity' of rural areas in Europe and says that 'Rural areas have differed and will continue to differ in terrain, climate, landscape, population density, settlement pattern as well as cultural heritage, land use and economic activities of their inhabitants. Rural areas share certain features and problems, but at the same time they have unique potentials, unique problems, and are therefore undergoing unique forms of transformation' (Schmied, 2005: 5).

The diversity of the CORASON areas is grounded initially in the fact that these are 'rural' locations: that is, they are still, to some (varying) degree, rooted within and dependent on the use of natural resources to sustain their economic survival. In the rural locations CORASON studied, the natural characteristics varied widely. Some (e.g. Norwegian, Swedish RRAs) are found in mountain settings with an abundance of forestry and water but relatively poor soils; in the Swedish RRA, for example, almost half of the area is covered by forests and another 25% is mountainous or other unused land. Others (for example County Tipperary in Ireland) have rich deep soils, good grassland, and little native forest, or are in plains with a Mediterranean climate of low annual rainfall and moderately high temperatures (e.g. Portugal, or the Mezotur region of Hungary). The productive uses made of these resources also vary widely: while partly shaped by climate and terrain, they are also fashioned by long periods of market adaptation and production knowledges. In our study regions, production from natural resources varied from cereals to beef and sheep farming, from olive and grape cultivation to processing of forest products, from dairy products to fishing and fish farming. The different regions also exhibit different forms of land-ownership and social organisation of production: some areas are dominated by small privately owned farms, often now worked on a part-time basis, while in others, large farms dominate, sometimes owner-occupied and sometimes owned by absentee landlords. The particular political history of the Central and Eastern European countries, and of the countries which have been ruled by dictatorships in the recent past (Portugal, Spain, Greece) have influenced their land-ownership patterns in distinctive ways, but in all the countries included in the research, legislative interventions into land ownership have been a recent or earlier feature and these have been shaped by different ideals in relation to both the rural and the national identity and destiny.

Our RRAs also exhibited considerable diversity in relation to both demographic and economic trends. In around half of them, rural populations in the region are declining, some more sharply than others, but in other cases (Ireland, Scotland, the Lodz region in Poland) an increase in the rural population is evident. The Portuguese and, particularly, the Swedish RRAs show a very low population density, whereas at the opposite extreme, population density in the Malopolska region in Poland is very high. Some RRAs are characterised by significant permanent or (Greece) seasonal migration, and as a result by an aging and often gender-imbalanced population, while in others, in-migration has become an important trend. The extent to which the rural economy continues to be shaped by and organised around agriculture or other forms of natural resource use also varies widely: agriculture occupies around 4% of the employed population in the German RRA and around 6% in the Czech one, but around one third of the workforce in the Lodz region in Poland work in agriculture. This region is an exceptional case in the CORASON RRAs in that it is actually showing an increase in agricultural workers in the recent period, whereas in every other case agriculture is contracting as an economic activity, if sometimes from quite high previous levels. Trends in relation to the non-agricultural economy (see WP7) also show a lot of variation: the Czech RRA, South Bohemia, and the Po Delta in North Italy have historically been locations for large-scale industrial employment, and some large manufacturing enterprises (particularly in chemicals and pharmaceuticals) have come in recent decades into the Irish RRA, but in

many of the other regions there is little history of large-scale employment in manufacturing and the main non-agricultural employment is found in the service sector, with a particularly strong role for tourism. Service work occupies up to three quarters of the labour force in the German RRA. Finally, the unemployment rate varies greatly between different rural locations: in the German RRA it had reached 23% in 2005, according to official statistics, and it currently runs at about 20% in the South Italian RRA, while other areas (e.g. the Irish RRA) have unemployment rates close to the national average (although these may not accurately reflect the extent of underemployment concealed in agricultural groups).

Diversity in two further respects across our RRAs should be mentioned here. One of these is in relation to the strength of civil society in the study locations. In many national reports, rural civil society was described as relatively weak and underdeveloped; in some cases this was explained as a result of national historical experiences and traditions, and in others as reflecting particular characteristics of the rural populations themselves, such as their adverse demography, or educational levels lower than the national average. But in other cases again – notably the Scottish and Irish cases but not confined to them – rural civil society was described as strong and vibrant, based on a tradition of efforts at self-help and of community-based social organisation. A second form of diversity is found in the ways in which the rural locations are being shaped by and responding to broader trends in public understandings of and orientations to 'the rural' within their society. As we suggested earlier, models of 'the rural' and of rural development have undergone some changes over time among European publics; there has been an evident trend in the past twenty years away from understanding the rural as a significant location for the production of food, towards seeing it rather as a significant location for nature conservation and the maintenance of biodiversity (see WP5). Some of our RRAs are much more strongly shaped by the emergence of conservationist concerns and programmes than others, and reveal corresponding adaptations of their economic activities and practices. A particularly clear illustration of this is given in the German RRA, Mecklenburg-Vorpommern, but the Norwegian and Swedish RRAs also show the impact of conservationist concerns on both the local economies and local understandings of what is to be valued as quintessentially 'rural'. In contrast, other regions (e.g. the Scottish, Irish, and most of the Mediterranean regions) are still characterised by a stronger 'productivist' understanding of rural life and rural distinctiveness, though without necessarily associating this with intensive and specialised agricultural production. It may also be argued that since the conservationist turn in public appreciations of the rural in the late 1980s, a second trend can now be discerned which articulates a sort of rediscovery, or 're-valorisation', of rural lifestyles and cultures. This is often associated with public rediscovery of the pleasures of 'local foods', but may be considerably broader than this, integrating consumerist interests in appropriating elements of rural products and services through a discourse of 'expanded choice' with a new appreciation of the value of cultural and social diversity. While practices of re-valorising distinctive rural resources and skills, widely described in our case studies, appear to be largely driven by autonomous local actors and interests (as is also suggested in the 'New Paradigm rural development' model referred to earlier), these can also be

seen as emerging and flourishing in response to an emergent broad socio-cultural change in perceptions of the rural across Europe today.

Finally, within the rural areas themselves where the CORASON case studies took place, a commonly noted feature is the recent emergence of social diversity. Many of these localities are accommodating the arrival within them of new types of actors, from members of the ‘project class’ to ex-urbanite newcomers. In some notable cases, return migrants or emigrants who keep in close touch with their place of origin are exercising considerable influence on local development efforts. Simultaneously, local residents are finding themselves asked to take on new roles or to change the identity of their existing ones: farmers are urged to become entrepreneurs, for example, small business owners to become innovators, and sectoral organisations such as farmers associations, community resident groups, co-operatives and trade unions begin to think of themselves as collective actors for local development. Diversity within rural communities parallels diversity between them.

Typifying the rural

The presence of a high degree of variety does not mean, of course, that no typifying framework could be used to organise it. The literature on rural societies, both academic and policy-oriented, is full of typologies. Typologising the rural is an attempt to provide the degree of generalisation necessary for intellectual clarity and/or effective policy development, while remaining sensitive to difference and heterogeneity. However most typologies are also an implicit statement of a definition of what the rural is, or should be, so they need to be recognised as also a political act.

The most minimal definition of rural areas which commands widespread consensus combines elements of both economy and spatiality: rural areas are regions or districts of a society where population settlement is dispersed, and where agriculture continues to provide higher levels of employment than is found at the national level although it may not necessarily be the leading sector in the local economy. (This may exclude some regions which are understood within their own society to be ‘rural’ such as the Czech region of South Bohemia). An example discussed by Green (2005) of a typology based on spatial and economic features used by the European Commission (see e.g. Second Report on Economic and Social Cohesion 2001) differentiates between types of rural areas on the basis of their degree of integration into national and international economies and their distance from centres of economic activity. This produces three types of rural area: those which are close to metropolitan areas and under their influence, generally well integrated into broader economic systems, with a high average per capita income, and employment is in industry and services more than in agriculture; an 'intermediate' type which is spatially more distant, where agriculture continues to be important in the local economy, but there are quite good links with urban centres and the rural economy is diversifying, particularly into food processing and services; and the remote rural area, relatively isolated from urban centres and national markets, with poor demography and infrastructures, declining services, and high employment in agriculture. The typology is of some limited use in categorising the rural areas which CORASON studied – we could

perhaps identify Co, Tipperary in Ireland with the 'intermediate' type, and the German, Hungarian (Mesotur) and Portuguese RRAS with the 'remote' type – but there are many countervailing types in our data. Some 'metropolitan' cases (such as the Lodz region in Poland) experience growing employment in agriculture and difficulties in integrating into broader economic systems, while others, such as the rural parts of the Po Delta in North Italy, reveal conflict rather than integration between different economic sectors. Some 'remote' cases, such as Skye and Localsh in Scotland, have good demography and a growing service economy but underemployment in agriculture, while others, such as Calabria in South Italy, increasingly combine quality food production with specific types of tourism and while they might be considered remote in a spatial sense, are much less open to this description in terms of their interactions and relationships with outside groups.

Trying to fit our cases into this typology means losing sight of a lot of the variation which is so significant for understanding what is happening in rural places today. The classification is static, offering little insight into processes of change; indeed given the emphasis on distance (from markets and urban centres) as a key influence, it is difficult to see how change could be an active goal for rural inhabitants (they can at best find new ways of 'adapting' to their spatial circumstances). It offers little insight into how different patterns of transformation can be found, not just between but also within each of the types defined. 'Rural development is the result of a complicated, but overall positive matching of internal conditions with external influences whose minutiae are (still!) largely unknown' (Schmied: 6). On these 'internal conditions' this typology has little to say – for example about differences in natural resources, and access to them, which still shape socio-economic life at the local rural level in significant ways, about cultural and social organisational differences, or about different experiences of population movement (in- and out-migration by different types of social groups) which are also significant influences on local development possibilities. More importantly, rural areas are differentiated here by their relationship to urban centres and to national and global markets, thus prioritising the urban as the engine of development, and reinforcing images of rural areas as backward, lagging, and dependent for development on exogenous inputs and resources.

Relations between a rural area and its wider social setting cannot be captured only through notions of market integration: cultural or 'civilisational' perceptions of rurality also shape policies for managing 'the countryside' and can act as both constraints and opportunities on possibilities for rural economic development. These also exhibit variation and diversity. Fonte (2001) identifies three different models of rurality rooted in different national or transnational cultural traditions: the 'naturalist' tradition of rurality in Britain, the 'agrarian' tradition of rurality in Continental Northern Europe, and the 'denied' tradition of rurality in Mediterranean Europe. The 'naturalist' tradition, associated with a historical experience of early urbanisation and industrialisation, values the recreational opportunities offered by the countryside over its productive uses; here the existence of specific valued types of landscape, understood as 'nature' although in most cases the outcome of generations of productive use, is what provides comparative advantage to local rural economies. The second, 'agrarian', model, which Fonte

associates particularly with France (but which, as noted in CORASON WP7 CR, might also be used to characterise models of rurality in the Central and East European countries included in our study), identifies rurality with peasant society, that is with a particular way of organising work, consumption, life styles and social or community relationships; while the third model is rooted in the historically strong connection between urban civilisation and rural communities found in Mediterranean regions which have also been characterised by a relatively extensive type of agriculture, a rich craft tradition, flexibility in work, pluriactivity, an informal economy, and the presence of many small and medium non-agricultural enterprises. What is understood as rural, and hence what is considered appropriate to 'rural development', differs substantially in these three broad cultural discourses, shaping often more or less tacit assumptions about what is to be 'sustained' in the development process.

Emphasising exogenous factors as the source of rural change has been criticised by a number of writers over the past decade, who have called for the formulation of a 'new paradigm' of rural development which, while not neglecting conditions and processes shaped by the larger economy, emphasises instead the importance of endogenous resources in rural development processes (see e.g. Van der Ploeg et al, 2000, 2004; Marsden 2003). These can take the form of 'natural' advantages - landscape, climate, soil conditions, biodiversity - but more important is how they are recognised, or 'valorised', within the local society and culture; they also include cultural resources (Ray, 1999) such as distinctive language, food and cuisine, history or spatial identity; and most importantly, social resources such as networks, collectivities, feelings of communality, formal and informal institutions at the local and regional level, and local, lay or tacit knowledges and skills which may be brought into economic use. Once we include endogenous as well as exogenous resources in our account of rural societies, the possibilities of variability and diversity become enormously expanded. Also, within this 'new paradigm', our attention is directed to the important roles which can be played by rural actors themselves, as actively engaged and knowledgeable participants in their local society, in creating social change.

*Typologising rural economie*s

One characteristic that rural areas are recognised to have in common is that employment in agriculture is higher within them than the national average. More broadly, we could say that the presence of agricultural work (which may be quite widely understood, to include forestry or fishing, for example) is a defining characteristic of 'the rural'. Nevertheless, as we have seen above, the strength of the agricultural presence, and the forms of land holding, land use and productive practices associated with it, vary widely from one area to another. Green (2005: 30) outlines four models of agricultural development derived from EU policy documents: the 'productive' model, in which an increasingly rationalised agriculture oriented towards international markets becomes more and more concentrated within particular locations in Europe; the 'adaptive' model, oriented to national or local markets, and producing 'quality' food (often of a type 'traditional' to a particular locality) in response to increased consumer interest in distinctive types of food product; the 'transition' model, where farmers constantly change what and how they produce in a attempt to find a reliable income in the context of

increased and globalised market competition; and the 'marginalisation' model, where agriculture has an increasingly precarious and unstable structure within the local economy.

This typology, which emphasises processes of change and transformation rather than static qualities of space and distance, can help to identify types of agricultural change occurring within the CORASON regions but is of limited use in categorising rural processes more generally. Even within agriculture, it does not recognise that there may be relationships between the different development processes within a given region or area, as it tends to treat each type of process as developing independently within a different rural space. As Kautsky (1899) pointed out over a century ago, large and small farmers often exist in a symbiotic relationship, whereby the development of 'productive' farmers within an area itself generates tendencies towards 'transition' or 'marginalisation' on other farms. This type of relationship can be identified in some of the CORASON regions, including Portugal, Hungary and Ireland for example.   The typology needs to be expanded to give more detail about the processes and mechanisms which accompany the emergence and career of each type, such as the mechanisation, scientisation and specialisation of production which generate unequal opportunities among farmers to move into the 'productive' category, and the expanding control over food production exercised by the agri-food (and today, increasingly, the food retail) industries.

Perhaps the most useful aspect of this typology, however, is in suggesting that a major trend occurring in rural areas in Europe and elsewhere is movement towards increasing 'de-agriculturalisation', a suggestion which is strongly supported by the CORASON research. Even in rural areas where agriculture has moved towards the 'productive' type of development, the labour and land required for commodity production for international markets contracts, opening up opportunities for non-agricultural uses; in 'transitional' and 'marginalised' situations, movement out of farming tends to be the dominant pattern in the local labour market, and even in 'adaptive' types of agriculture, as our case studies show, there tends to be a close relationship between the survival of farming or food production and the emergence of a differentiated rural economy in which service provision (often for tourism) plays a central role.   Some writers argue that the key future scenario for agriculture in Europe today is that its relative share in the economy will continue to contract, that farm numbers will decrease, that the area under cultivation will become more concentrated, and that non-agricultural uses of land (for urban or housing development, industrial sites, leisure and recreation uses, nature conservation) will grow (see e.g. Bodiguel 2005).   De-agriculturalisation, then, is a direct result of the increasing productivity in agriculture brought about by the adoption of an industrial farming model. The traditional gap between rural and urban economies is narrowing. However, the response of rural households and communities to this key process still takes different forms in different rural settings (CR WP7).

The Comparative Report for WP7 discusses one recent typology which emphasises the way in which the process of de-agriculturalisation is differentially encountered and addressed within different rural economies while also recognising the immense variability between rural places in natural and cultural resources and social structures.

Marini and Mooney (2006) distinguish between three types of rural economy which they call 'rent-seeking', 'dependent', and 'entrepreneurial'. Their taxonomy is distinctive in the way it attempts to integrate a historical perspective on process over time, and to introduce variations in natural resource endowment and in local culture into the picture.

A 'rent-seeking' rural economy develops around opportunities for extractive activities (including agriculture) provided by natural resources; these are locally specific and generally non-replicable (although scientific advances have made many of the natural resources used in agriculture relatively replicable today), and income from their use can to that extent be considered a 'rent'. In a contemporary context, where extractive use of largely non-renewable resources is increasingly regarded as unsustainable, rent-seeking economies may experience declining incomes and spatial and political marginalisation. A 'dependent' rural economy is one where income into the area flows largely from external sources, including tourism and social welfare or farm support measures. The third type, the 'entrepreneurial' rural economy, generates an income primarily from the 'valorisation' of local resources, or from deriving added value by using them in such a way as to meet a global demand for high quality consumption goods and experiences. This tends to be associated with local areas where the economy is already diversified, many independent small and medium businesses exist, and the local culture supports entrepreneurial activities at the individual or collective level.

The opposite side of the coin to de-agriculturalisation is the expansion of non-agricultural economic activities in rural areas. Non-agricultural economic developments can be rooted in agricultural or other extractive production processes, as where processing industries grow up to add value to raw commodities (see the case of the bergamot industry in South Italy, or the processors of forest products in Sweden). Sometimes these grow up in an endogenous way, in other cases they are exogenous, as when a multinational chipboard producer parachutes into rural Ireland in search of cheap labour and cheap forest by-products. The perception of rural workers as both a cheap and a docile (or non-unionised) labour force is a pull factor for such companies in a number of CORASON rural areas, whether or not they make use of natural resources available in the locality. Typologies of the rural thus need to include differences in the scale, types, and presence or absence of ‘local embeddedness’ of non-agricultural economic actors within rural areas, alongside typologies of agricultural change. But few such integrated typologies exist.

Gorlach et al (CR for WP7, 2006) suggest a modification of this typology to focus it more specifically on types of economic activity or employment, and to clarify more strongly how typologies of the rural need to incorporate different types of rural development strategy, rather than just processes of change. The three types they suggest are, first, an 'extractive economy' where income in the rural area is obtained from selling local goods extracted from the natural environment. This has historically been found in areas which survive through selling relatively raw commodities, without much involvement in processing industries whether for food, minerals, forest products and so on. The second type is the 'manufacturing economy', which follows the 'typically modern' logic of industrial, standardised mass production of natural and manufactured

goods, whether in agriculture or in introduced industrial companies. Here, the local economy depends heavily on external capital. The third type is the service economy, but understanding service provision in a broad sense to include processes of valorisation of local resources (this may include agriculture, where it is used in developing rural or agri-tourism, for example). It could be seen as an example of 'post-modern', consumer-oriented economy.

Table 1: Combining the two typologies of rural economies

Marini and Mooney (2006)	**Gorlach et al (2006)**
Rent-seeking region	Extraction economy
Dependent region	Manufacturing economy
Entrepreneurial region	Service economy

The typology in Table 1 incorporates a historical and processual dimension, and an ‘agency’ approach to social change which emphasises the role of actors in creating and constructing social reality. It suggests that over time, each economic type defined by Martini and Mooney tends to develop into the corresponding type identified in the CR7 - and that a large part is played in this process by the type of economic philosophy or strategy held by rural actors which evolves out of the historical experience of the locality concerned. Thus, for example, a region or locality which has historically depended on external sources of support is likely to continue in this pattern and seek development through the introduction of manufacturing employment, or under appropriate conditions, mass tourism, accompanied by 'productivist' types of development on those farms which find opportunities to survive in the area; while a region which has historically been the location for much small-scale entrepreneurial activity is most likely to see its future development strategy as organised around small to medium scale service provision, including various forms of cultural, food trail or rural tourism.

Focussing specifically on activities and changes in the non-agricultural economy of the 14 CORASON regions, Gorlach et al use this typology to identify some key issues in the processes of rural development between different sets of regions. Most of the case studies focussed on entrepreneurial and service projects, while manufacturing initiatives were rarely found. They suggest that the most important difference is probably that between those regions displaying a trend towards a ‘service economy’ (in which category they suggest placing the Scottish, Portuguese, Spanish, South Italian, Greek, Hungarian, Polish and Swedish study regions) and the rest. In the first set of cases, non-agricultural economic development often complements agricultural development, rather than replacing it. These more ‘entrepreneurial’ regions have a common tendency to look towards tourist development, often green, agro- or rural tourism, as an important non-agricultural economic development strategy, often integrating it into a more general strategy to develop through the valorisation of local resources. As the Comparative Report notes, this is not always realised in practice, but it seems to be a common motivation, often linked to a strong ‘sense of place’, for development among actors particularly at the local level in these types of regions. At the same time, as the report shows, the networks of actors involved in development projects in any rural locality tend

to be highly complex, and may differ in character, shape and size between localities and contain conflicting as well as co-operating interests. Thus the typology points us towards further exploration of the details of development processes and actors as an essential element in understanding rural difference.

A further strength of the typology is that it opens up possibilities to link processes of economic change to different patterns of penetration, circulation and exchanges of knowledge associated with the different development strategies. We return to this in II.2.3 below.

Typologising rural politics
A different but widely used typology (Marsden 2003) takes as its key variable the socio-political relationships and structures which organise rural societies both internally and in their relations to the larger social systems in which they are located (see also Newby, Newby et al). Exceptionally, this offers four (rather than three) types: the 'preserved', 'contested', 'paternalistic' and 'clientelistic' countrysides. The 'preserved' countryside strongly echoes Fonte's characterisation of the British 'naturalist' conception of countryside: these are rural regions which are regarded as scenically 'attractive', particularly to counter-urbanising middle class actors who mobilise to regulate the local economy in a preservationist direction, emphasising 'clean' industries and the service sector, and often hostile to intensive agricultural operations. The 'paternalistic' countryside is characterised on the other hand by the social and political dominance of landowners and large farmers, many of whom are also still quite large employers and powerful in local labour markets, who mobilise to ensure that local development (in industrial provision, housing development etc) serves their interests. The 'clientelistic' countryside is economically dependent on various transfer payments from outside , including subsidies for agricultural production; and in the 'contested' countryside no single social group dominates local development but there are ongoing conflicts between different interests - the ex-urbanite middle class, commuters and other newcomers, farmers, business owners, environmentalists, local government planners, and so on.

Marsden's typology is closely modelled on the British experience of rural change and transformation and is not always easily transferable to other parts of Europe. Nevertheless it is useful in reminding us that conceptions of 'the rural' are not only 'contested' transnationally across Europe but also within nations and indeed, within local social settings themselves. The changing demographic and social make-up of rural areas, the presence or absence of local institutions (formal or informal) which lend themselves to capture and use by specific social groups interested in regulating what happens in 'their area', and differing sources and bases for the exercise of power available to rural inhabitants, all need to be included in any meaningful typology which attempts to make sense of different trajectories of development in rural economies. The task of constructing one single typology of 'rural societies' which would organise the huge variety of antecedent economic and environmental conditions, historical social structures and relationships, cultural traditions, social relations and institutions, and developmental policy discourses into useful categories, and also situate these in relation to a varied and

changing macro-economic structure at regional, national and transnational levels in a useful and meaningful way, does indeed seem close to impossible.

Typologies or typifications are of course not meant to be exhaustive in their coverage of all possible empirical facts and processes, but are intended only to focus our attention on a subset of these, which are thought to be particularly relevant for the problem at hand (Weber, find date). However, what our selective overview above suggests is that the 'problem at hand' may be conceived of in very different ways in different contexts. For some, the rural problem may be the process of de-agriculturalisation itself; to others, the spoilage of 'pristine' nature which current forms of rural development bring in their wake; to a third group, the loss of a particular type of community or communality associated with at least some rural areas (perhaps particularly those which Fonte calls the 'agrarian' type); and to a fourth, the inequalities of income and opportunity evident between urban and rural society. For CORASON, the key 'problem at hand' is to understand the knowledge dynamics operating in projects for rural development as rural areas are increasingly drawn into the new 'knowledge economy' emerging across Europe: are relations around knowledge sustainable, socially and economically, do they lead to new patterns of 'dependency' for rural economies and communities, do they encourage innovation and entrepreneurial practices, what new forms of social inclusion and exclusion do they construct? The construction of a final typology for rural processes in the CORASON areas must wait for the detailed discussion of knowledge dynamics later in this report.

II.2.2 Rural Development and Sustainable Rural Development

The reproduction of difference which characterises rural areas in Europe today in the face of globalising and homogenising forces, and which seems to be an irreducible outcome of their highly varied ecological conditions and historical experiences, raises some critical questions about attempts to 'develop' such areas. What types of development processes can be modelled which can respect and cope with such variety? Is it possible, or desirable, to impose development goals and processes on them which assume, explicitly or implicitly, a particular logic of economic growth, cultural change, and civic consciousness? These are questions which may be posed about both strategies for rural development, and strategies for Sustainable Development.

If we look back at the models of rural development identified by Marsden (2003) with which CORASON started, and without wishing to impose an evolutionary interpretation on them, we could argue that they appear to mark a developing trend away from a monocultural and linear understandings of development (as 'agri-industrialisation' – the construction of farmers as 'modern businessmen' using homogenised farm inputs and knowledge to overcome the natural variability of soil fertility, climate, field size and so on) towards more flexible and diversified understandings. In the 'post-productivist' phase, these began to manifest themselves in an appreciation of particularistic and varied natural assets in rural locations as a public good. More recently we can start to see a

recognition of variety as itself a developmental resource, for example in programs for Integrated Rural Development where the concept of integration provides a set of guiding criteria for rural development which form a framework within which diverse types of economic activity and innovation can find a place.

Probably the most interesting experiment in this new approach to rural development however is the EU's LEADER program (1991-95, 1995-99, 2000-06). Projects for rural development led by local LEADER groups were a particular focus of CORASON research in WP8, and we draw here on some points made by the Comparative Report for that workpackage. (The Report notes that three of the countries participating in CORASON, being Accession countries, experienced not LEADER but rather SAPARD and/or PREPARE programs during the recent period, and suggests that while SAPARD was primarily directed towards facilitating the process of delivering EU Agricultural and Rural Development Programmes after Accession, PREPARE shared a number of features with LEADER, in particular its emphasis on the use of a bottom up approach). The explicit objective identified for LEADER was that it should look for innovative solutions to rural problems which could reflect what is best suited to specific areas, while still providing guidelines for developing other types of rural area elsewhere. LEADER+ in particular was designed to help rural actors to improve the longterm potential of their rural region, through making better use of their own local natural and cultural resources, while LEADER 1 emphasised a territorial, integrated and participative approach to development which encouraged a focus on valorising local social capital, and LEADER 2 placed more emphasis on innovatory forms of development.

The Comparative Report for WP8 discusses this concept of 'innovation', the varied meanings given to it by actors at different levels of government and power, and the varied reception of the term by different rural populations. It suggests that there has been considerable 'misunderstanding' or differentiated understanding of what it means to say a project is 'innovative', and that rural actors frequently understand innovation as something to do with scientifically driven and high-tech economic activities and therefore more relevant to urban than to rural conditions. Nevertheless, as with so many other of the CORASON case studies, what becomes evident is the extent to which local actors engage in *renegotiating what is initially experienced as an imposed concept* in order to provide it with a localised meaning. And indeed the studies show that LEADER-led rural development has been highly innovative, if in ways that are not usually recognised as such by wider discourses of innovation. Specifically, the Report suggests that such projects are characterised by *social innovation* (encouraging local linkages and collective learning cultures), and by *cultural innovation* (improving the local milieu, valorising elements of the local culture for economic exploitation and to strengthen the local identity). Insofar as these innovatory processes are recognised as such in hindsight, by local participants and by project evaluators, we can identify a discourse of innovative economic development which is specifically rural, and distinct from urban and macro-societal innovation discourses. As the Report concludes, 'in all of the countries studied in the CORASON project, innovation is understood at the national policy level as essentially technological development, and hence something that originates primarily in urban areas where science is produced, universities and research units are clustered and

where technology can be transferred to businesses…It is rare to find any recognition… of innovation in rural economies'. Too blunt an application of the 'knowledge economy' model of economic development may hinder rather than foster rural development.

The WP8 Report notes that the non-LEADER projects studied in the country reports bore many resemblances to what are seen by evaluators as core features of LEADER-led development projects, indicate how the LEADER experiment is influencing and transforming the general context for rural development across Europe. Here again we can see a tension between a homogenising tendency in interventions in rural development processes (the imposition of the requirement to be 'innovative' and associated criteria and rules for evaluation) and at the same time, an emphasis on a type of endogenous or neo-endogenous development process in which specific, and varying, local conditions, resources, social and cultural characteristics are regarded as the raw material for local rural development. When we turn to discuss programs and policies for Sustainable Development, can we identify similar tensions? Is there a similar trend to be found within this policy process, from unilinear and standardised understandings of development, to more flexible and variety-oriented understandings, or is the trend perhaps going in the opposite direction?

Before addressing that question, we need first to say something about the relationships between Sustainable Development and Rural Development which the work for CORASON has identified. Can we, or how can we, use the concept of Sustainable Rural development to characterise contemporary policies and programmes for rural development?

Rural development and the concept of sustainability

Sustainable Development (SD) is today an established concept in global, EU and national policies; within the EU it has been translated into strategies that are intended to guide sectoral policies at all levels. A large proportion of the funding from the EU to support development flows into agricultural and rural or regional development programs, and as suggested in the discussion above of LEADER, the rural has become a prime laboratory for contemporary EU development policy experimentation. Given the huge significance of policies for development directed towards the rural within the EU, it becomes important to ask how and in what ways strategies for Sustainable Development enter into and guide these policies.

CORASON (see especially the Comparative Report for WP9) argues that there is a sort of 'silent' or 'invisible' influence of SD ideas on rural development policies, where the concept of SD itself is not used directly or explicitly but other concepts, such as integrated rural development, or more recently, multi-functional agriculture, are indirect approaches to it. We can trace a historical process of change over time, from earlier periods where SD thinking was manifest primarily in the varying attention paid within rural programmes to issues of nature protection, conservation and environmental policy, to more recent periods when issues around resource use, integrated and trans-sectoral resource management have become more central to rural development strategies. What was earlier a sort of silent dialogue between rural and sustainable development policies

has now become more explicit: for example, LEADER+ now explicitly emphasises 'the implementation of integrated, high quality and sustainable development' as its core objective. However, we did not find a unanimous practice of subjecting rural development programs to analysis in relation to the principles of SD across all our study countries. And even when SD is a prioritised goal for rural development, rural programs also have a variety of other, sometimes competing or contradictory, goals to follow, most of which come from mainstream economic thought.

We can also identify an emerging situation in which rural development programs, such as the agri-environmental programme, are interpreted as examples of the implementation of SD. Defining SD through identifying sectoral programmes and policies which appear to implement SD emerged in our country studies as a dominant way in which policy actors were able to give meaning to the concept. This seemed to be particularly true of the difficult and largely under-articulated concept of Sustainable Resource Use/Management, where programmes for rural development such as Integrated RD are taken to offer a demonstration of the idea in practice.

A problem with this largely silent dialogue is that it neither provides a terrain for public debate and discussion, including rural and other actors, over the meaning of Sustainable Development or sustainable resource use, nor encourages discussion over how adequate the rural 'implementations' of these ideas actually are. Thus, for example, rural development strategies targeted on sustainable agriculture dissociate from each other the agricultural practices of organic farming, those of 'traditional' or non-industrialised farming, and those recommended for modern environmentally-friendly farming. All of these can be seen as attempts to achieve a more sustainable resource use within food production, but there is little attempt to compare or evaluate them from within a perspective of SD. As another example, in policies for Integrated Rural Development agriculture is often left out, given the encouragement within this programme for a diversified rural economy i.e. one which is diversifying away from its original agrarian base. While this allows a plurality of other actors and interests to be taken into account in the development process, it is not fully socially inclusive and could be regarded from that point of view as not a good example of what Sustainable Development means or should mean in practice. Throughout CORASON we have stressed the argument that SD is a 'platform concept', open to a variety of differentiated meanings and interpretations (we return to this issue again below). Our research suggests that the dominant relations between RD and SD at the policy and strategy level largely have the effect of suppressing that understanding of SD.

The case studies in CORASON suggest that for many of the actors involved, rural development programs are not well understood as also programs for, or guided by, ideas of sustainable development. (This does not mean, of course, that they do not try to bring into such programs their own ideas, often given by their local culture, about how resources should be used and managed so that they will remain productive over a long period). Social groups who do argue for the incorporation of a particular understanding of SD into rural development tend to be groups who are engaged in general environmental debates in the society concerned, rather than being thrown up by

engagement in or contests around rural development programs as they are implemented. They generally are not part of and do not represent political or interest groupings already formed within rural politics such as political parties, farmer associations, producer groups or local citizen groups, but emerge within the SD process itself and identify themselves with relation to its discourse. Most of the country reports suggest that these pre-existing rural groups articulate their interpretations and interests in the public and policy debates around SD rather rarely, and that it is more often the case that this is done for them by 'intermediary actors' or 'interpreters' who are either established environmental organisations, or 'hybrid' groups and institutions where governmental and non-governmental actors participate together.

Articulation of a particular understanding of SD is then most obvious when the policies at issue relate to natural resource management (where NGOs and environmental movements have established roles already); economic or social sustainability concerns, which are generally connected to traditional rural interest groups and economic actors, tend to be much less directly articulated or heard. However, our studies also found that with the introduction of SD concerns into a local development project or project, organised groups tend to split into temporary and new interest coalitions which are difficult to categorise in an systematic way. For example, the Irish case studies of local food actors (WP6) show how concerns about environmental sustainability in food distribution systems divide both farming groups and the local organic movement, However, this study also tends to confirm the point made above – that the new coalitions which form around sustainable development issues, being neither recognised rural associations nor recognised environmental actors, find considerable difficulty in having their perspective heard and recognised within sustainable rural development policy.

The Comparative Report for WP9 argues that there is a reason for the 'silence' in the dialogue between policy frameworks for rural development and those for sustainable development. This is because the understanding of SD in European countries is dominated by a specific interpretation of it, widely known as Ecological Modernisation (Johnson 2004). Ecological Modernisation is not much discussed in the country reports for WP9, but it has advanced, without provoking much public debate or critique, since the 1990s to become the mainstream model for the practice of SD in Europe. It is a powerful policy concept which shapes national SD policies and strategies; but it has rarely been specified in relation to rural development or its implications spelt out for rural areas. We will say more about Ecological Modernisation below; here we emphasise (as argued in the WP9 Comparative Report) that it is an interpretation of SD which reflects the distorted view of rural development held among power elites in Europe, both governmental and non-governmental - that rural development is negligible within a general strategy for SD, because rural activities contribute only a small part to the national economies, to product value and employment. The Ecological Modernisation model is directed primarily towards a 'greening' of industrial technologies and products (and more recently, of consumer practices), and it does not sufficiently address the whole question of natural resource use and the resource base for economic development, in which as CORASON argues rural areas play a critical role.

Even when we are dealing with rural development programs which explicitly present themselves as oriented towards the goals of SD (ecological, economic and social sustainability), it is often difficult to assess whether they actually contribute to these goals, or perhaps continue older policies under new names. Below we argue that the goals of SD remain ambiguous and vague, in spite of a superficial appearance of standardisation and clarity at a macro-policy level. If we are to cope with this problem, whether in rural development or in other sectors of society, we need to build into the development programs not only mechanisms for improved monitoring and evaluation, but also mechanisms for coping with conflicts and controversies. The guiding ideas of SD are not elaborated sufficiently to provide clear objectives, but need to be developed through more long-term experiments and the recognition of competing discourses. It is also important to recognise that conversion processes towards SD and sustainable resource use, which are found in practice in rural development and evident in some of the CORASON case studies, are not necessarily caused by the formulated policies and strategies, at least not only by them and perhaps not even mainly by them.

SD as a political and policy concept

'Sustainable Development can be defined simply as a better quality of life for everyone now and for generations to come. It is a vision of progress that links economic development, protection of the environment and social justice, and its values are recognised by democratic governments and political movements the world over. Sustainable Development is about:

1. Balanced and equitable economic development
2. High levels of employment, social cohesion and inclusiveness
3. A high level of environmental protection and responsible use of natural; resources
4. Coherent policy making in an open, transparent and accountable political system
5. Effective international co-operation to promote sustainable development globally'

(http://ec.europa.eu/sustainable/pages/idea_en.htm)

This definition by the EU of sustainable development raises a number of similar problems to those discussed above. It is evident that the definition brings together a quite eclectic wish-list, linking together ideas (e.g. social justice, democracy, quality of life, environmental protection) which have their origins in quite heterogeneous traditions of political and social thought. The role which the concept of 'quality of life' has come to play in definitions of SD is interesting; while this is certainly an element in SD discourse, it is not a core part of it, and has perhaps come to hold the central role it does more due to the requirements of legitimising new policy directions than for any scientific reason. 'Quality of life' as an idea is similar in some respects to a 'basic needs' discourse and can be subjected to similar criticisms, not least among them that the decision as to what constitutes a good quality of life is culturally contextual and relative to the actual situation of the group called on to judge it.

In CORASON, we recognise that SD not a scientific concept, though it may be subject to scientific analysis and reflection; we approach an understanding of the meaning of this term through analysis of the public policy processes related to rural development and to broader societal development processes. More broadly still, we are interested in its use by a range of different actors, as a 'platform concept', and most importantly, as a concept which is changing and developing through time, through the efforts of both policy and scientific discourses to make the concept operational and practically applicable.

Our approach to SD and its multiple possibilities of interpretation gave rise to the following questions:

- How is the content of SD understood – as nature conservation, focussing on natural resources, or going beyond that – by different actors and at different levels of government and policy determination?
- who has 'definition power' for SD, scientists or political actors?
- Which social groups (especially in rural areas) argue for a specific interpretation of SD?
- At what level of action is SD going to become effective – national, regional, local/municipal?

We use these questions to structure the discussion of SD which follows below.

Political discourses of SD

To understand how SD is substantively interpreted in national and regional policy processes, it is useful to remind ourselves of the 'career' through which the concept has entered into the policy discourses of the different countries in our study. In most countries, the ideas about SD that enter the national policy process are to a large degree derived from international political discourses and programmes. EU discourses play a particularly influential role. The countries participating in CORASON are (with the exception of Norway) EU members, and this leads to a certain homogeneity in the policy discourses and strategies for SD across them. Since the 1990s, the EU has used SD as a synchronising and integrating idea across the different policy sectors, and its member countries have done so as well; even Norway has followed this in its policy practice of adopting what it sees as 'the best of environmental legislation' from the EU. The EU is itself also subject to the trend to follow the standardising practice of the global policy processes, where the application of SD is guided by some vague definitions accompanied by global policy programmes such as Agenda 21. This combination of vague definitions with concrete action programs is a quasi-solution for the inherent difficulties of SD, and it also appears as conventional political wisdom in the elaboration of national strategies for SD. The standard version, widespread today, that has found consensus among most EU governments and worldwide with the Johannesburg summit in 2002, is one which differentiates between social, economic and ecological (or environmental) sustainability in an attempt to conceptually model a holistic view of it. This is how SD appears in many of the national strategies for it in the EU countries.

The influence of global and EU-level SD-discourses has thus mainstreamed a standardised three-dimensional conception of SD, as social, economic, and ecological

sustainability. Some EU countries experiment with ranking the dimensions; examples of all three variants - that social, or economic, or environmental, sustainability has priority over the other two – can be found. In CORASON we found it useful to distinguish between countries where, at a discursive policy level, interpretation of SD as environmental sustainability dominates (Norway, Italy, Hungary perhaps), countries where the classical three-dimension approach is adopted (Germany, Greece, Ireland, Portugal, Spain, Sweden) and countries where additional dimensions are defined in the national strategies (cultural dimensions, in the Czech Republic and Poland; community governance, in Scotland). Arguments for a particular prioritisation are not generally given in the respective programs or strategies, which seem to remain at the level of 'guiding convictions'. In the countries where no such priorities are formulated, the unspoken assumption that all three dimensions are of similar importance is generally not supported by any operational 'calculations' of how to co-maximise the three goals or what trade-offs are to be made.

This 'transnationalisation' of the content of SD, as observed in the national strategies, is however a process with rather few consequences. So far it has led, not so much to change in policies and development strategies, but rather to an adoption of a common terminology that at best has some effects at the levels of principles, strategies and policy programs (where intentions are formulated), but much less at the level of implementations and actor strategies in rural development (where ideas are realised). The status of SD within policy discourses, as shown in the debates the country reports addressed, differs from country to country; in some countries where the concept has been introduced into national politics at a quite late stage, SD tends to be understood as an imported concept whose primarily relevance is that it needs to be addressed in order to access EU funds for development, while in other countries it has become much more embedded and taken for granted within public debates and public policy formulation. Even in those states where we find a gradual 'Europeanisation' of SD, discursive commonalities at the macro policy level cover intra-societal differences in both discourses and practices. Whether that is something to be regretted, or counted as a failure of the SD process, is an issue we return to below.

A review of its 2001 SD Strategy carried out by the EU in 2004 (CEC 2005) indicates that while the general understanding of SD, and of the framework for its implementation set out in this, enjoys a high level of agreement among governmental and non-governmental actors, progress towards implementation of the goals is viewed more critically. A 2004 EU analysis of the national strategies for SD, the processes and timing of their adoption and implementation, in its member countries (CEC 2004) showed that the processes are widely differing, even though many governments paid specific attention to following the key components of the EU strategy adopted at the Gothenberg Council in June 2001. The CORASON research similarly found that despite considerable standardisation and agreement around the content of SD in the general policy discourses at national levels, policy programmes and their associated discourses show a broad variety of understandings of SD. The programmes themselves are heterogeneous in type and nature, and there is no 'representative' type which would allow comparisons between different countries. Implementation procedures are understood differently in different

countries:. the Comparative Report for WP9 reports that while nearly half of the participating countries in CORASON (Greece, Spain, Portugal, Poland, the Czech Republic) follow a framework strategy model, another 4 countries (Scotland, Ireland, Sweden, Germany) follow an action programme model or mixed models. Some countries give a legislative basis to SD, where the concept is translated into a number of specific laws; however even then, the implementation process is not necessarily more coherent and systematic than in the countries where SD remains a broad and vague policy framework category.

Thus while the three-dimensional discourse of SD is widespread in the CORASON countries, we still find differing interpretations between them. While some countries debate whether there should be more dimensions, it is rare to find debate about whether what is needed is not a more adequate number of dimensions but rather a holistic view of SD which takes into account all important determinants from systems and subsystems in society and nature. How to integrate its different dimensions into a more holistic understanding of SD or SRM is a critical question for the mainstream three-dimensional approach. More critical questions have to be asked about the relations between the dimensions in practice (e.g. which set of rules or criteria should limit other criteria or rules); and implementation of SD needs to start from the recognition that the world in which they live is experienced by actors on the ground not as a three-dimensional one but rather as an integrated whole. At the broad policy level (although not, as we argue below, necessarily in SD practice) there has been little progress from the dimensional logic to introducing into the general formulation of the SD concept particular institutions or action components, such as communities.

The country reports for WP9 do not give a systematic account of public debates about SD for different reasons, some already touched on above. In some, the debate has hardly started and there are not yet discernible positions found among different actors. In some countries, SD discourse is still seen as a political rhetoric that has not yet taken root in more substantial processes of social or economic change, and actors are reluctant to position themselves in a discourse which they see as ‘window-dressing’ only. Then there are cases where actors and groups link the SD discourse to their specific vested interests and use it as an instrument to support those interests (see in particular the Hungarian country report for WP9); this is visible, for example, among groups interested in nature protection and the environment. In other countries, the debates have gone on for a long time and have become splintered and not easy to summarise or systematise. But the reports (from other WPs as well as WP9) provide enough examples to illustrate the general hypothesis that SD is interpreted differently bv different groups of actors, both governmental and non-governmental. More importantly, beyond the policy process the meaning given by actors is shaped through what can be called ‘cultural traditions of resource use’ that become particularly visible at regional and local levels. This is particularly significant for rural development, where SD is linked with the specific resource base of a rural area, usually dominated by natural resources and their alternative ways of use.

CORASON asked how local actors in rural development interpret SD or SRM, and our research typically focussed on sets of socially organised practices in relation to natural and/or cultural resources. In our case studies, we can conclude, it was impossible to sustain the analytic distinction between natural, human and social resources; resource use brings together natural, human and social-organisational resources in a specific set of relationships, and it is this network of relationships (which we might call an 'actor-network') which needs to be the focus of SD and SRM research. Resource use is not a purely economic process that can be separated from ecological or social processes. It is a process of social structuring, which involves more than economic criteria, including the socio-cultural definitions and norms for the use of a particular natural resource; power structures and relations between user groups; knowledges about resources and their use; and the particular features of different resources (whether they are renewable or not, over what time period, and so on).

While different understandings of SD are held by different actors in rural development, it is only with regard to environmental interests, natural resource use and environmental sustainability that we find a rather widespread articulation and debate around its practice. This tends to be found most among environmental groups and NGOs, and their contributions have generally not systematically incorporated arguments about linking social and cultural resources with the SD process (although they are themselves usually representative of specific social groups and cultural resources). The CORASON studies found, however, that local-level actors do engage in attempts to give substance to the concept. In a number of countries (Spain, Scotland, Ireland), there were attempts to appropriate the concept of SD through local-level definitions and interpretations. Thus we can see that national strategies, and national policy debates, are not necessarily the decisive ones in the process of creating operationally relevant interpretations of SD; this process must also go on at regional and local levels between the actors there. In many countries, this process has not started yet, whereas in others it is somewhat slowed down through a formalised and standardised set of goals, criteria and indicators (as in the Swedish case, for example).

Our research suggests that the dominant, politically powerful, interpretation of SD is one which gives an inherent priority to either nature protection or natural resources and their management. That the use of natural resources is enabled and constrained through other – social, economic, human – resources is self-evident in the scientific debates about resource use, and in discourses such as the sustainable livelihood debates, but enters only slowly into public policy processes. Although the discourse adopted by most governments recognises, in some form, the three dimensions of SD, this does not necessarily direct attention to the coupling of social and economic interests and natural resources; that remains more often wishful thinking – not because of political incapacity but more as a consequence of the way the SD concept has influenced by global discourses and definitions which lack specificity, concreteness, operational definitions. As long as the relations between and priorities among social, economic and environmental sustainabilities remain unspecified, it can be seen as rational to limit the SD concept to natural resources to prevent it becoming still more vague and diffuse.

The EU-guided policy process has already started under the premise that it is possible to reconcile environmental protection and economic growth (reformulated again in the recent strategy for sustainable use of natural resources); but the CORASON research indicates that critical discussion of what SD is about (is it about economic sustainability while environmental sustainability is only window dressing, or the other way round? Does adoption of a strategy for SD mean we have reached a breakthrough in decoupling economic growth from resource depletion?) is nowhere near an end and will probably become more critical in future. The EU strategy for sustainable resource use (CEC 2005) argues that decoupling of environmental impacts of resource use from economic growth is the presupposition for further development towards sustainability. But how that can be realised under the present situation of a globalising economy where the hunt for ever more scarce natural resources is intensifying is left as an unanswered question.

We started this section by asking if we can identify a trend away from mono-linear understandings of Sustainable Development as policy project, or is the trend rather towards such understandings? CORASON's conclusion is that the trend is towards more mono-linearity, and in that respect SD policy processes contrast significantly with developments within Rural Development programs. Both the mainstreaming of a three-dimensional model of what SD means, and the significant dominance across European countries of one particular interpretation of that – Ecological Modernisation – help to support this view in relation at least to national-level strategies and policy discourses. As we have seen, also, agreement over the meaning of SD at that level does not necessarily mean standardisation in the forms and processes of implementation of SD, nor does it mean that within a given society, actors at all levels share the same interpretations of it. In some respects indeed, the extent of variation in these latter respects is so great that we might ask whether it is meaningful to talk of such a thing as 'sustainable rural development' at all.

Sustainable Development policy and the issue of knowledge

The semantic history of SD reveals an interesting gap in the relations between scientific and political discourses over the past 2 decades. In the 1980s, when the notion of SD was being politically adopted through the influence of the Brundtland report, a paradigm change was also happened in ecology, the scientific discipline which has the most influence on the sustainability discourse. This paradigm shift was from thinking in terms of eco-systems equilibrium and stability to thinking in terms of non-equilibrium, insecurity and resilience of ecosystem processes (Scoones 1999). In recent years this changing understanding of ecosystems has been developed through the study of inter-linked eco- and social-system development under approaches such as 'sustainability science'. The consequences of these changes have not yet been transferred into the policy discourses about SD, which still to a large degree follow the older thinking that sustainability is like a 'stable state' of ecological and social systems or harmony in human-nature relations which, once achieved, can be maintained over a long time, with progress towards that state quantified and measured through indicators (e.g. of emissions levels or threshold values) constructed to allow for achievement of such general goals.

SD as a politically guided process is still modelled on and measured as a steady progress towards a set of defined goals, instead of being conceived as an open, conflicting and non-linear process with ‘moving targets’, instabilities, surprising events, changing interpretations. That type of thinking cannot be defended on scientific grounds today, and this makes the future of the SD processes more complex both in terms of approaching a common understanding and in terms of starting the processes through political programming.

The paradigm change implies that we need to change our views of the role of policy in the broader SD process. It suggests that policies can no longer be seen as providing guidance for public action and actors, but need to be transformed into an element within more complex collective learning processes between governmental and non-governmental actors. However new ideas such as ‘adaptive management’ which have been created through the paradigm shift are difficult to formulate as reference concepts for public policies.

The question ‘who shall have definition power and why?’ regarding SD is rarely discussed in SD programs or explicit discourses. It is answered more through an underlying routine of checking the decision-making processes in public policies in terms of their legitimacy. Most of our country reports support the conclusion that political actors with formal mandates and powerful roles are the ones that have the power to define SD – whether in concerted or controversial ways, by neglecting or prioritising it. Stakeholders whose interests are linked to the policy process can meanwhile be involved in routine processes of ‘participation’. Open and programmatic controversies about the definitional role of science and policy happen only in exceptional and critical situations when a program or strategy has not worked successfully and this has become visible through monitoring and evaluation. Due to the organisation of the policy process, this usually happens after the end of the program or strategy when these are systematically evaluated; but many SD programs are not long enough in place to have provided opportunities for such controversies in which the roles of actors and the attribution of legitimacies are redefined.

The failure of the paradigm shift in ecology to influence public policy for SD to date suggests that there is a dominant ‘primacy of politics’ in the SD process, meaning that the ideas which guide us towards SD are understood as of a political nature; they need to be discussed publicly and in politics, and are not scientific concepts although science and ecological thinking derived from science have had impacts on their use. Definition power rests primarily with political actors; scientific concepts, results, knowledge may be seen as influencing and ‘qualifying’ the political decisions and policy processes, but not guiding them. Again, this is probably most true at national and EU levels of SD discourse; at more local levels, the CORASON country reports documented significant numbers of cases where it is scientists who are able to claim definition power, most often in relation to ecological issues and practices, and in turn this often acts as a way of closing down public and political debate.

The role of science and scientific knowledge forms, then, in influencing the SD discourses is unclear, and sometimes contested. Policy-centred views of SD also leave unclear who are to be regarded as the ‘authors’ and the ‘owners’ of the ideas shaping SD, who should take responsibility in interpreting and implementing or realising it. Should these be governments and their ministries and departments, the public in general, an undefined number of stakeholders who participate in the policy process, specific political or social organisations or groups, nations, or the global community? The changing relationships between science, politics and society in the process of globalisation are not yet sufficiently analysed by social scientists. The respective roles of science and policy in the SD process need to be discussed, because this process is a paradigmatic example of societal changes where relations between science and society are changing.

How do knowledge of and interpretations about SD move from the national or transnational level down to local actors? Classical understandings of ‘the diffusion of innovations’ or of how modernisation changes come about in development processes assume ‘trickle down’ diffusion processes through which new ideas such as SD, initially externally driven and subsequently taken up by elites and social leaders, gradually become integrated into the rationalities and values of the local agents. But there was little in the CORASON case studies to support this idea. Only one of our case studies (the German case reported in WP9) provided some support for it. More often what we found was one or other of two situations. Either there is no adoption and interpretation of the term at all at the local level or by local actors (despite the widespread assumption that the local level is essential for practising SD and SRM) – we can interpret this as meaning either that local actors have not yet adopted the ideas, or that they are refusing to adopt the ideas; or local actors are aware of the terms and seek to contest the political and bureaucratic rationality which they find in them, trying instead to interpret them in their own way and in contrast to governmental plans and documents. In the ideal case this would become the start of critical local movements and citizen initiatives to formulate an alternative paradigm for SD according to the needs and interests of the local population themselves. But such critical local movements are not well developed in European rural development processes. More often it is the already well established and well-organised movements and NGOs that react critically, those that have already become more part of the power play than representative of the ‘local voices’.

These cases appear to involve not diffusion of SD so much as ‘interpretation fights’ over SD, even if the ‘fights’ generally remain at a low level and are more characterised by evasion than head-on conflict. Our evidence suggests that they occur in all countries, although the extent to which they surface in public media or are brought into public debates varies. Whether they gain attention or not appears to depend on how far the policy process has advanced – whether it is still simply taking up an international concept and debate which finds no resonance in national policy, or whether it has begun to adopt and implement the concept in ways that affect the interests of stakeholders and political actors, leading to controversies about its interpretation and application. In some country reports, few controversial debates are discussed – this tends to be where the ideas and strategies have been formulated quite late (e.g. some CEC countries, Portugal); in others, the question ‘who has the right, capacity, better knowledge to define SD?’, touches

directly on the power play between national, regional and local institutions and actors, and becomes a core question of what the policy process is about (e.g. Spanish, Scottish, Norwegian reports).

In summary, the CORASON reports provide evidence of what we call a 'differentiating adoption' of SD, both at the level of national discourses and policies where the mainstream concept of three-dimensional SD is both articulated and often refined in interpretation, and even more among actors in rural development at local levels. We argue that this is in fact in line with the rationale of the SD concept, and even more of the concept of SRM, which requires regionally and locally specific interpretations and applications. It can be seen as a counter-trend to transnationalisation (in the sense of standardisation of policies through EU or global influences). Several of the country reports discuss the countervailing trends within their study areas against the adoption, pooling and standardisation of the understanding of SD as articulated in and spread by EU and national policy strategies. The decoupling of national policy processes from regional, local or other discourses and processes about SD, and conflicts around knowledge in SD with the concomitant phenomenon of expert controversies, often lead to definition fights which in turn become a means to search for 'autochthonous' forms of SD. Where there are delays or incoherences in adopting and implementing a strategy 'in practice' at regional and local levels, as in e.g. the Greek and Portuguese reports; or because an imported concept in national policy is not known to regional and local actors (e.g. Hungary, Poland); or because national strategies use more advanced discourses and interpretations of SD, while regional, local or sectoral policies, which dominate SD practice, still follow older or 'first generation' ideas of SD which see it as implemented through conventional nature protection and conservation policies, local actors again may turn to searching for more autochthonous versions. The Scottish report showed how regional institutions and actors make efforts to appropriate the SD discourse and process for themselves and to gain 'definition power'. There is a growing body of research and literature which addresses the reality of definition fights over SD and sustainable resource use, and which looks for the preconditions of successful SRM at the local level, drawing on concepts and approaches of co-management, self-management, adaptive management, and polycentric management systems (see e.g. Ostrom 1999).

It is by highlighting such disassociation processes, or more sharply, ruptures and cleavages between different interests in SD, that CORASON differs from other attempts to review and assess SD processes in political and scientific discourses. The key question is how to move from 'disassociation' to 'differentiation', understanding this as a more socially inclusive state where recognition of different interests and perspectives would form part of collective learning and the elaboration of joint interests, ideas and knowledge bases for SD. This would require broader and more pluralistic frameworks for organising SD than the current dominant policy framework; it would mean attempting to go beyond the policy processes and the sphere of politics to make SD a truly social process of development in which local groups and actors can engage their own knowledges, cultures and holistic worldviews. Within rural development, this would mean that two changes need to occur:

- use of a broader knowledge base than scientific and managerial knowledge; and

- a broader understanding of SD as political or managerial process, to include: the social components of creating new sustainable livelihoods for rural populations; the economic components of redistributing economic and other resources to make a socially inclusive development possible; and the ecological components of 'navigating' the connected development of social and ecological systems.

CORASON also identified a number of different ways in which actors involved in implementing rural sustainable development may understand the role and place of different types of knowledge within their development projects. These are:

- *the 'incorporation of knowledge' approach.* This works from the assumption that incorporating or synthesising different forms of knowledge allows the project to combine their different qualities to achieve goals in the most effective way. In practice, given the greater power and status of political-managerial and scientific knowledges in the knowledge hierarchy, this means an effort to strengthen and re-formulate the knowledge held by local producers. In that context, SD is understood as user-based resource management and encourages participatory forms of resource management at the local level. While the cases studied in CORASON did not make explicit use of or reference to the paradigm shift in ecological thinking referred to earlier, this approach to understanding knowledges in SD could be developed to be compatible with its associated ideas, such as 'adaptive management' and 'co-management'.
- *The 'elitist' model,* which relies heavily on scientific and expert knowledge and devalues and suppresses local knowledge and experiences. Here, 'definition power' is given to scientific, bureaucratic and local elites, and scientific knowledge is accepted as the only valid form of knowledge while managerial expert systems implement the SD strategies. In this case we find ideal preconditions for an ecological modernisation approach to SD and for exclusion of local resource users from control of the process.
- *The 'knowledge-embedding model'* which emphasises that knowledge systems are socially structured and operate within social contexts. As noted in Part I.1.2 of this report, this way of thinking about knowledges in SD projects takes the view that all forms of knowledge, local or expert, are associated with particular social groups and structures and may be partial in their perspective (cf. Bicker et al, 2004). Thus it is important for actors implementing SD in local projects to be highly aware of the power and discourse structures, organisation of civil society, property structures and local conflicts which shape the forms of knowledge available to or brought into the project (see also Shucksmith 2000; Comparative Report for WP8). In this model, an understanding of the degree of 'embeddedness' of knowledge carriers within local networks can help to enhance new integrated knowledge systems supporting SD.

The issue of 'governance'

At what level should the SD process be organised and implemented? Regions and local administrations or institutions have been widely identified as the key institutions and actors for SD, particularly when this is understood from an SRM perspective as an attempt to match the use of natural resources in the regional resource base with the carrying capacity of its eco-systems. When the concept of SD is extended to include not only natural resources but also social and economic ones, the resulting complexity tends to make the concept more adequate for analytical purposes (to analyse linkages between ecological and social systems or natural, social, cultural and economic resources, in a more holistic way), but less adequate for constructing regional policy programs and implementation processes, which normally try to reduce complexity rather than to model variety.

The divisions of functions between the national, regional and local levels are quite different in our participating countries. Despite the long debate in the EU about the subsidiarity principle, strengthening regions in the policy process, decentralisation of political decision-making and more recently also giving more power and influence to local actors (e.g. in such programs as LEADER), SD discourses have not yet produced any homogenising effects at this level. The CORASON research found that, in spite of their supposed significance in the SD process, regional and local institutions are (with a few exceptions) not the ones driving the discourse or the implementation practices. They have little role in defining SD, is adopted and adapted primarily by the political and social groups at the centre. In Germany, Portugal, Norway, and Sweden, the development of Local Agenda 21 processes are mentioned; in all the countries, support and financing of regional and local projects through national and EU funds is important; only in federal state systems does program formulation and legislation take place at regional level; and there is considerable variation between the countries in the degree to which dialogues and debates about SD involve national, regional and local actors (including governmental or administrative, and non-governmental). The presence or absence of such linking mechanisms is related not just to the time at which the SD discourse entered into the national public arena, but also to different traditions of public engagement and civil society in the different countries, and differences in funding for regional and local administrations, which often do not have the financial and human resources to develop and implement their own policies for SD but must rely on national level support and subsidies.

Our research suggests that the question concerning the effective level to implement SD is generally not addressed or answered systematically in the policy processes, beyond a rhetoric that gives increasing responsibility to regional and local levels. Looking into programmes in rural development in which the SD-concept unfolds – such as the agri-environmental, LEADER, nature and species protection programs and the presently ongoing programs for integrated rural development – the impression the country reports give is that for most countries, a devolution of power, roles and responsibilities so that regional and local institutions and actors are systematically empowered has not happened. What happens rather is a co-optation of new regional and local actors and groups to the dominant institutions and governmental actors, as discussed above. The ideal-typical reasoning in NGO and social movements discourses about the SD process as one of local

governance and civil society character is integrated into the mainstream policy by way of conceptions of 'participatory management'.

However, CORASON case studies suggest that explicit attention to 'participation' at the local level is rare in rural sustainable development projects. It is most evident in the rural development projects initiated under LEADER, where we have argued that participatory forms of development effort constitute a distinctively rural 'innovation'. Some of the case studies carried out for workpackages 5 and 6 also show that where participatory engagement (of any form) of local actors in development projects is absent, this can lead to problems – it may encourage local actors to withdraw from state programs and policy processes for implementing SD into associations which bypass the state, such as local social movements, which then easily become oppositional to state policy (see e.g. the Irish case studies for WP 5 and 9), or can create situations in which useful local initiatives do not attract the attention and support of administrative authorities necessary to realise themselves most effectively. While this is not definitive evidence that a participatory approach is necessary for SD, it does strongly support that argument.

However, a critical issue here, which has been widely addressed in the literature (see e.g. Leach, Scoones and Wynne 2005), is the form and structure through which participation is organised; some of the research on participatory structures in CORASON, to the extent that such structures were found at all in the participating countries, suggest that they are often understood by political actors more as a means for control over and closure of debate about appropriate forms of development than as a forum from which ideas generated through participation and debate of local actors can percolate upwards through the administrative system (see for example the discussion of the County Council-organised 'Community Forum' in the Irish case study for WP5). It is also widely noted that 'consultation procedures' as a way of demonstrating openness to citizen participation are generally structured by those who organise them so as to define and limit the range of alternatives that can be put forward by those consulted. As Jasanoff and Martello argue (2004), the task is to design and maintain structures for participation in which exchanges of ideas and knowledges flow both ways, from the bottom up as well as from the top down, and this is extremely difficult in practice.

Overall, we can conclude that the SD process in the European countries is still a government- and policy-dominated process in which, in spite of the new governance debate, it is the institutions and actors that have legal decision-making power and formal roles in the policy process – governmental actors and state administrations – who give SD its present shape in application. This hegemonic role of governments and their knowledge coalitions allows less room for civil society institutions and actors to make their voices heard. It channels the interests and initiatives of NGOs and other groups through the formal rules of the policy processes, which often limit the influence of stakeholders to that of being consulted in the processes of policy formulation but not included in the decision-making and implementation processes. This situation is in fact not specific to the SD process but a general characteristic of government-dependent policy processes – it reflects the emergence of what Habermas has called a 'legitimacy crisis' of polity and

political institutions, leading to a new policy of seeking consensus and legitimacy outside the formal political institutions.

This discourse of broadening legitimacy by seeking support or consensus through informal consulting with a broad variety of stakeholders with different interests is visible more at EU levels than at national levels. Decisions no longer achieve legitimacy by just following the legal authority of elected actors; broader legitimacy and support has to be sought outside the formal channels, and this is given effect through adoption of a ‘second’ or supporting legitimacy process by co-opting NGOs and new social movements which are closer to local and direct democracy. The new styles of policy and resource management which result are often called ‘co-management’ or ‘participatory management’, but the interests, social bases, or legitimacy of NGOs to speak for social groups are not always transparent, and the process does not clearly enable representation of the interests of local groups or actors that are neglected in the normal policy process. SD is an example of such new ‘double legitimacy politics’ though the process has not taken root to the same degree in all EU countries; the ones where the SD discourses entered the national agenda late and recently have not yet developed that new management style, and in others it conceals the persistence, beneath a new political rhetoric, of centralised and authoritarian understandings of administration and government.

In global SD discourses, attention is increasingly paid to redefining citizenship and human rights in long-term views of the transition to sustainability, at the end of which new governance systems are expected to be established. From our findings, however, this is not currently an important issue in the European countries and policy processes studied. SD discourses seem require changes in policies to give civil society, local actors, and individuals as citizens, new and stronger roles, but in most of the country reports no detailed reflections about reconstructing citizenship were found, suggesting that this discussion has not yet begun in them or has a very low level of priority. Some country reports did discuss debates that could be important for reformulating citizenship, where local actors are engaging in controversies to strengthen their roles in the development process and (re)gain decision-making power, but these are not overtly understood as citizenship forums.

Indirectly, the idea of a broader definition of citizenship that includes rights to health, quality of life, intra and inter-generational justice and equity, may be strengthened by discussions of SD at national and local levels, and the idea of reformulating citizenship along these lines could be seen as part of the search for pathways towards SD. Given the knowledge practices, policy processes, and power relations that shape debates about SD, it might be important to give the idea of SD as one of constitutional and citizenship rights some normative or constitutional codification. The idea of ‘ecological citizenship’ has emerged from several discussions but it is not yet formulated as an operational concept of SD. Participatory resource management or co-management could be understood in this context as approaches to strengthen what could be called ‘ecological citizenship’ at the local level, by giving the local population and local resource users more influence on the use and control of local resources. In some specific areas, such as coastal areas and

fishery, such projects are already on the way, and supported by most governmental actors, but – with the exception of the LEADER project which can be understood as an experiment with local participation – they have not yet become mainstream practice in rural development

Two models of sustainable development

There have been many more attempts to make sense of the concept of SD at an analytic level than studies of how it functions in practice. From the CORASON research material, we suggest that two models of SD can be distinguished, based on analyses of its practice in specific situations. One is the model which is becoming standardised, if in slightly differing forms, in national and transnational policy discourse which understands it analytically as involving three dimensions – economic, social, ecological – which must be brought into relationships with each other in the development process. This model is associated, as argued above, with a ‘primacy of policy’ approach to SD, assumptions that political elites should have ‘definitional power’ over the concept and (only) expert knowledges are essential for its implementation in programs, and that over the longer time frame citizens will take up and incorporate SD, understood from this perspective, into their individual practices.

The CORASON case studies suggest that another model can be formulated, one which is perhaps more rurally specific. Less analytic and rationalist in approach than the first, this develops criteria for a process of social learning and experience building, through which gradual progress in improving resource management practices becomes possible. We could see it as a heuristic approach to SD in which different understandings of SRM are explicated, compared, applied, and through that process verified or rejected.

The first model is the dominant political and scientific paradigm in thinking about SD, and increasingly outlined theoretically under the concept of Ecological Modernisation. The second is a minority view which uses the diffuse concept of sustainable livelihoods to include and strengthen the interests, rights, knowledge and power of local resource users. A livelihood approach is important in that it does not (as the dominant Ecological Modernisation approaches do) neglect rural production and producers, but rather places them in particular focus; it is not constructed out of or for an urbanised, income-dependent livelihood situation. The question of how to ‘sustain’ regions and communities is not the same as the question of how rural households can make a living (see the WP7 Comparative Report). Nevertheless, unless rural households can find ways to develop sustainable livelihoods for themselves, policies to maintain sustainable rural regions may become irrelevant.

This second model goes beyond the current rather cautious notion of participatory resource management to argue for a real devolution of power structures and control. We noted in the Comparative Report for WP9 that examples of ‘livelihood SRM’ are rarely discussed as an element in the national debates about SD in the country reports, even though those reports contain examples of its practice. This leads us to ask what obstacles or barriers may prevent policy discourses from addressing this dimension: how is it that

the networks of relations around rural development and the sustainable management of rural resources seem to largely exclude those rural actors who would be most likely to voice a livelihood account of SD? Alternatively, where their voices are heard, what conditions help to facilitate their inclusion? Our case studies across all the workpackages (but perhaps particularly WP6) indicate some of the conditions which may be important: inclusion of local actors seems most associated with rural areas where dependence on the natural resource base is still critical to making a living for many or most of the rural inhabitants and where development strategies at the local level take the form predominantly of attempts to valorise or re-valorise aspects of that resource base, e.g. through the production of foods marketed by local origin, or through more 'green' and/or culture-based forms of rural tourism.

Contrasting an institutional or Ecomodernisation discourse and model of SD with a local, livelihood oriented one helps to highlight the issue of 'environmental democracy' which has been a significant element in the global sustainability discourses. The European SD discourse has come increasingly under the hegemony of the ecological modernisation model and is less and less open to the formulation of other, contrasting, discourses. Re-opening the question of interpretation of SD in less power-dominated forms, and identifying the components and criteria of SD which are not well covered in the dominant discourse, would help to further the debate.

The CORASON research shows that long, inclusive processes are needed for SD to become successful. It would also be a mistake to expect that the guiding ideas of SD can standardise actual development processes. What the on-going SD process means and how it advances is not well described at the levels of political and managerial processes only; we need a broader view which addresses differentiation and seeks to transform SD into a socially inclusive process, recognising national, regional, local and actor-specific differences in the way the idea is adopted and accommodated to the different situations of resource use that can be found. The 'common future' that was hoped for under the guiding concept of SD is difficult to see in the complexity of the processes that is needed to support it.

II.2.3: Studying Rural Sustainable Development through a focus on knowledges

In this final part of the synthetic review of the CORASON material, we ask what we have learnt about sustainable development, particularly in rural settings, as a result of our decision to prioritise an investigation into the uses of and relationships between different knowledges within rural development projects. We try to answer this question, first by briefly reviewing the theoretical or conceptual understandings of knowledge with which we started the project, and how these developed as it progressed; second by asking whether 'local knowledge' can be considered a real phenomenon which should be taken into account in attempts to develop rural areas in Europe today; third by overviewing some of the more significant findings from the CORASON research about 'knowledge dynamics' in rural (sustainable) development projects; and finally, by returning to the issue of 'participation' in such projects and programs, and linking this to the presence of differentiated knowledge forms in rural society.

Conceptualising knowledge over the course of the CORASON project

As was outlined earlier in this report (I.1.2), CORASON started from a relatively simple differentiation between three forms of knowledge which we expected to find acting on local rural development projects, and which we saw as commanding unequal status and power in the design, management and implementation of them. These were labelled as ‘expert’, ‘managerial’, and ‘local’ or ‘lay’ knowledges. ‘Expert knowledge’ can also be called ‘universal’, ‘global’ (as in Jasanoff and Martello 2004) or simply ‘scientific’ knowledge (as in Leach et al 2005). In CORASON it was primarily identified with scientific or technological knowledge; over the course of the project it was further conceptualised as ‘standardised’ knowledge, following the argument of Latour (1987) who described scientific knowledge as knowledge which is produced within specific local sites, whether laboratories, expert committees, or ecological field trips, and is subsequently simplified and pruned of its contextual references so that it can be made to apply in a standard way across all local settings. This can include policy expert knowledge as well as the knowledge of scientific experts. ‘Managerial knowledge’ came to be increasingly understood in the research as the practical knowledge required to negotiate and manage the implementation of such standardised knowledge within a local site.

How to label the third type of knowledge remained somewhat controversial throughout the research: any categorisation of it needed to recognise that it could include ‘traditional’ skills and practices (as in the production of particular food varieties in particular local settings), ‘indigenous’ cultural understandings of natural and social processes, ‘experiential’ knowledges built on experiment and observation, and even ‘re-localised’ expert knowledges where standardised knowledges are adapted to the specific features and conditions of a particular local setting. Ultimately, the term most used in the CORASON case studies and reports is ‘local’ knowledge, but this may sometimes be used to differentiate between ‘internal’ and ‘external’ knowledges, and sometimes between knowledges which are ‘formally’ generated and transmitted, for example in educational settings, as against those which are transmitted primarily by observation and example in informal settings.

As we also noted in II.1.2, this categorisation of three types of knowledges became overlaid, as the project went on, with a different distinction, between ‘tacit’ and ‘codified’ knowledges. While tacit knowledges may be quite widely shared in a society and need not be specific to a given local setting, in practice the CORASON research tended to absorb tacit into local knowledge, on the grounds that it is primarily non-standardised knowledge which is informally transmitted rather than codified for formal instruction. To complicate matters further, we were aware throughout the project that all of these categories – and perhaps particularly the ‘expert’ versus ‘lay/local’ distinction – are social constructions: not only do they carry with them considerable baggage in terms of power, status and cultural capital, but we may not be able to identify in advance of studying any particular instance of conflict, co-operation or negotiation around a development project how the actors involved construct the varying forms of knowledge present in their environment. Within some projects, actors may be considered carriers of ‘expert’ knowledge who would not be recognised as such in other projects.

As we will develop further below, however, over the course of the project attention shifted somewhat away from identifying and categorising the different forms of knowledge in play within a given project, and towards learning about the 'dynamics' of knowledge within it. How are knowledges transmitted, exchanged, circulated and disseminated around the actors involved; how is this process shaped by existing power relations and institutional settings; what knowledge dynamics, or development tendencies, are found in projects where one or other type of knowledge dominates? These were the sorts of issues which became of increasing interest to us as our research progressed.

Does 'local knowledge' exist, in our study localities?

This is a difficult question to answer, given the diversity of meanings which, as we have just argued, can be given to the term 'local knowledge'. As we noted in section I.1.2 above, the debates about local knowledge and its significance for achieving successful development projects has primarily taken place in relation to Third World or non-Westernised societies, and it could be argued that it has little relevance to a European context given the long history of mass formal education in European countries, and the widespread dissemination of scientific and technological knowledges and world views through the mass media. From this point of view, it is inappropriate to investigate the interaction between local and expert knowledges within development projects – even rural ones - within a European setting, because 'lay' actors in this setting already have a considerable command over a variety of expert discourses and integrate them into their own everyday practices.

We were aware from the start in CORASON that if local knowledge was to be found in the cases we studied, it would not take the form of 'traditional' knowledge entirely unmediated by expert discourses. In agriculture alone, a long history going back before the 20th century of attempts to modify farming practices in the light of new discoveries by non-farming experts means that very few farmers today only access and use the knowledges about production handed down to them by earlier generations in their family or local community. Nevertheless we wanted to treat it as a research question whether something approximating to what is called 'local knowledge' in those anthropological debates could be found in the cases we studied. Our interest was in discovering how programs and projects for rural sustainable development may produce interactions between different forms of knowledge which may be beneficial or detrimental to the SD process. From this point of view, in the end two forms of 'local knowledge' emerged as particularly interesting: we could call these 'tacit' and 'lay' knowledges.

'Tacit', or what Anthony Giddens (1993) has called 'prediscursive' knowledge is understood here as the sort of knowledge which we use, more or less unconsciously, to manage our interactions with other people. It is created through the normal process of socialisation, as a knowledge held by everyone who can be judged to be a 'competent' (Garfinkel 1967) member of society, so it is not specific to local settings; but it is often localised in specific cultural forms within communities which have a long history of close internal relationships. Examples we might mention could include drinking

practices in rural Irish pubs (how to buy ‘a round’), how to greet an acquaintance on the street, how to show respect for another person, what sort of physical contact with another person is appropriate in conversation, or in bilingual situations (e.g. the Scottish case studies), which language to use with what people on what occasions. This tacit understanding of social practices in relationships is particularly important in defining community or territorial boundaries, marking out who is ‘one of ourselves’ and who is an ‘outsider’. It is also peculiarly vulnerable to culturally globalising influences, particularly through media and films, which may offer alternative relational conventions and help to transform the ‘local culture’ as a result.

Tacit knowledge, understood in this sense, appears to be most significant in its effects for local social cohesion and trust. We can link it to Granovetter’s (1985) concept of ‘embeddedness’: that economic transactions require trust, which is not generated by the transactions themselves but originates in the social relationships and social networks which surround these. Granovetter used this concept to explain how networks of small firms can emerge and form successful ‘business districts’, arguing that close social relationships allow the quick transmission of information between firms and encourage inter-firm co-operations in areas like the marketing and promotion of products. Embeddedness in the relational culture of an area, as the Comparative Report for WP8 argues, helps to strengthen the informal social networks and social relations which are often critical for promoting economic development, particularly where this takes ‘innovatory’ forms. That report also notes the importance, for the success of many of the projects studied in CORASON, of the presence of a charismatic leader or individual who plays a range of roles in local society and embodies in themselves a range of different knowledges. The importance of such individuals is also a strand in the Comparative Report for WP6. These people are often ‘outsiders’, either return migrants or incomers living in the society, but their command of the local tacit knowledge about how to interact with and ‘manage’ relations with others appears to be one strong factor in their ability to lead and influence other project participants.

We understand ‘lay knowledge’ here, on the other hand, as knowledge less about social relationships and social practices and more about ‘objective reality’, practical causal connections, or ‘how things work’. Lay knowledge is empirical knowledge about, for example, natural processes (an understanding of local eco-systems and relationships between different elements within them), or productive processes (how to grow particular types of plants under local conditions, how to produce certain ‘craft’ objects including local cuisines, local types of pottery or locally specific musical forms), or how to manage complex water-flow systems for agriculture or fishing as in the case studies from the Po Delta in North Italy. This is not a knowledge learnt through ‘normal’ socialisation systems, it has to be imparted by certain individuals to other individuals or acquired through particular experiential circumstances; it is generally transmitted in informal situations of learning, and therefore tends to be found in variable, ‘non-standardised’ or ‘non-codified’ forms. This sort of knowledge is peculiarly vulnerable, not so much to cultural globalisation but to changing market demands for the specific skills or the products which embody them. Lay knowledge can be considered a version of scientific knowledge or ‘expertise’, but one which is not formally recognised or accredited and

which therefore may not command much status or power, particularly in situations of interaction between accredited and non-accredited knowers.

The presence of lay knowledge can be seen as a specific resource for local rural development. Again, the Comparative Report for WP8 notes a number of case studies of innovatory economic development in rural settings (particularly in the country reports from Germany, North Italy and Ireland) where this type of knowledge played a central role in the design and scope of the development project; and lists some others (from Scotland, South Italy and Germany) where projects were founded on the desire to preserve and enhance lay knowledges and skills, where these did not necessarily define the work of the projects but were still a key component of their work. It also argues, however, that in many of the cases studied it is not the lay knowledge of actors but rather their support and acquiescence in the project which is needed for the project's success; or we might say, the project set out to mobilise the tacit rather than the lay knowledges of local actors.

We suggested above that one of the features which differentiates 'lay' from 'scientific' knowledge is that, because of the more or less informal ways in which it is transmitted, it is found in variable and non-standardised forms. A particular theme which has emerged from the CORASON research concerns the effect on lay knowledge when it encounters situations which lead to its standardisation or codification. This began to emerge as a theme as early as Workpackage 5, in discussions of the ways in which a familiar 'local place' may become 'codified' as a nature reserve or site of special scientific interest, leading often to disjunctions in knowledge between locals and administrators and to resistance to scientific understandings of local nature. It is particularly discussed, however, in the Comparative Report for WP6, focussing on certification procedures used to market foods of local origin. The report shows how the codification processes involved in certification are selective, both of local producers of the food in question, and of what is regarded as genuine, usable under 'modern' conditions, or scientifically acceptable (e.g. in regard to hygiene criteria) forms of lay knowledge about its production. Unless that selection process is explicitly recognised and carefully managed in the development process (and this seems less likely to happen when those driving are external scientific experts), it is likely to result in new forms of social exclusion and the creation of new inequalities within the local population. It can also lead to commodification of a product in forms which raise questions about its 'authenticity' as something which embodies the identity and the skill s of local producers. Thus lay knowledge emerges in many of our case studies as both a significant resource for economic development, and as subject to valorisation processes which can have socially undesirable outcomes.

Lay knowledge, in relation to food or to other rural products, may sometimes be perceived as 'traditional' knowledge; for example where it is located in rural areas which have been by-passed and marginalised by programs for agricultural modernisation, it can be associated with the 'pre-industrial' knowledges about agricultural production which have survived and been handed down in such localities over many generations of practitioners. However, the Comparative Report for WP6 also notes an interesting

alternative to this interpretation; referring to 'food deserts', or rural places which have long been organised around specialised agricultural production for export and where local food consumption needs are increasingly met through globalised retail systems, it discusses the attempts in some of these places to 're-localise' the food system and in the course of that, recreate new 'lay knowledges' about food production, purchasing and preparation. This is a 'non-traditional' form of local lay knowledge, which is created through a variety of sources including social movements (such as the organic and local food movements), access to accredited experts (often indirectly, through books and journals), experimentation, and sharing of experience. Again it tends mainly to be transmitted through informal occasions and social networks, although (e.g. in the Scottish case study for WP6) it may sometimes be created through attending formal courses of instruction; and its variability and lack of standardisation tends to be seen as a valuable asset in situating it within specific local circumstances, rather than a weakness or problem. More generally, this Comparative Report argues for a view of lay knowledge as knowledge which is embedded within specific 'territories': geographically and socially boundaried sets of relationships within which knowledges are 'accumulated and stratified, but also reproduced, renewed, created, shared, and exchanged'. The cognitive system of a given territory is thus a site for innovation in knowledge and knowledge use as much as one for conservation.

In this context, it is worth remarking on the issue of 'knowledge deficits' in rural social groups. a topic raised in a number of case studies over the course of the CORASON research, and discussed specifically in the Comparative reports for WPs 7 and 8. The image of rural populations as lacking knowledge, or lagging behind other groups in the society in their possession of knowledge, or human capital more generally, is one which is found in nearly all the stereotypical understandings of the rural in the participating countries in CORASON. It is only strengthened by the frequent association of rural with 'traditional'. A number of country reports argued that the low levels of familiarity with 'modern' knowledge among the rural people in their research regions was a problem affecting attempts to initiate development amongst them. Lack of new forms of knowledge, or perhaps lack of interest in acquiring it among populations who do not see it as having much relevance to their own economic and social situations, can clearly operate as a constraint on development efforts. It was most often found where rural populations were elderly, and had experienced out-migration for many decades. Interestingly, in at least one such case (the Spanish country report for WP8), lack of knowledge was noted to be not just a problem among the rural inhabitants but also among administrators and public officials up to the level of the regional administration, who lacked the knowledge needed to promote the new type of integrated, endogenous innovation process required for participation in LEADER and IRD programs.

Without denying that there can be problems around knowledge in some rural areas which pose an obstacle to those promoting particular types of development, the CORASON research emphasises that the idea of a 'knowledge deficit' needs to be applied with great care. Where project initiators complain about the difficulties of working withundereducated local groups, they may need to reconsider the appropriateness of the development project itself and the way it is managing its relationships to local actors.

The interconnecting of expert and lay forms of knowledges can be seen as an important function of project managers; from this perspective, the issue of rural 'knowledge deficit' can be re-interpreted as an incapacity of existing managerial knowledge to make such interconnections in a non-hierarchical way. Also, many of the rural actors who appear in our case studies, if often self-educated, are highly knowledgeable in both 'lay' and 'expert' forms and could be described as 'citizen experts' about a wide range of issues and practices. Out-migration can be a knowledge resource for rural people, either through migrant return or through the maintenance of contacts with those who have left. More importantly, 'knowledge deficits' can be found among external expert actors who try to develop a project in a local area as much as among the subjects of development – both in their grasp of the tacit knowledge needed to manage social relationships effectively, and in their understanding of the significance and usefulness of locally existing lay knowledges. The fact that it is usually the absence of 'modern' – scientific, technological, commercial – knowledges which is complained of largely reflects the existing hierarchisation of knowledge in European society, in which local, non-standardised, non-credentialised knowledges are ranked at the bottom in status and power.

What we learnt about RSD through the study of knowledge dynamics.

As suggested above, both 'tacit' and 'lay' knowledges emerged from our work as significant elements in the construction of rural development projects. Tacit knowledges help to create environments in which useful empirical knowledges can be empowered and put to work. Many of the case studies emphasise the importance to project success of building on or incorporating into the project the informal networks in which project participants are involved through their territorial membership. Informal social ties and networks emerge as important sites for the circulation and exchange of both 'lay' and 'expert' knowledges relevant to the project; they allow knowledge resources to be exchanged and also to be combined and put to work in innovative ways. From this perspective, the most effective networks were often ones which contained more than just 'local actors'; actors participating in those networks also included returned migrants, or migrants who remained in close contact with their area of origin through yearly visits, or through their deep interest and study of aspects of the area from afar, perhaps in universities or research institutions. They also often included local administrators or 'project class members' such as agricultural extension professionals, who combined expert knowledge with a strong understanding of the 'tacit' ways in which social relationships are created and maintained at the local level. Many of these actors could be seen as examples of the 'charismatic individuals' referred to earlier, who bring in to the network both their own specialised knowledges and vital connections to other worlds outside the local area. But such individuals were also often found among the local actors themselves; in some studies, they were particularly likely to have been formed out of their history of engagement with specific social movements, such as the organic or environmental movements. As the Comparative Report for WP8 emphasises, informal networks of this multi-stranded sort do not only provide an environment in which differentiated knowledges can circulate and encounter each other; they can also play an important role in mediating power relations in situations where political structures and

inequalities in power might otherwise mean that 'lay' actors have very little voice in their own development processes.

Most if not all of the projects which we studied required some form of 'expert' knowledge, often at the very beginning in order to initiate the project, or at an early stage after the project began to function. But it was clear from our research that this expert knowledge did not always have to take the same form: in some cases, specialisesd scientific knowledge was critical (as e.g. in the Polish case studies of the orchard and bumble bee projects in the Lodz area), but in many cases 'citizen expertise', that is the specialised lay knowledge possessed by a person with a passion for some particular topic (food, culture, nature, sustainable house renovation) was what was critical to starting the project. Thus in some cases 'codified' knowledge – which often had to be 're-localised' in some form - was the critical resource; in others it was knowledge in much less standardised forms, which actors had gained through experience and close observation, augmented by appropriation of scientific expertise through reading or internet use and so on.

However, the impact of expertise on the further development of the project is itself an important issue. As we noted earlier, it can sometimes have socially exclusive and inegalitarian effects. Our research suggests that a critical factor to be taken into account in addressing that is the social structure which the project develops and through which knowledge-power relations within it are mediated. In many of the cases studied, little attention appears to have been paid to social organisational features within the project itself; it was assumed that these should follow normal administrative relationships, with leadership and managerial power held by those elected to local office or well-placed in local or regional bureaucratic structures, and advisory power held by scientific or business elites. In some exceptional cases, devising the social organisation of the project was considered to be an equally important part of it, or a reconsideration of it was forced by local resistance or discontent. A particularly effective design seems to be some form of co-operative structure, either one novel to the area or building on existing co-operative organisations. An example is the case of the Swedish windfarm described in the Swedish report for WP8, where the organisational structure of the co-op embedded local actors in the windfarm project in ways which appear to have led to considerable knowledge transfer and collective learning. The technological knowledge needed to operate this form of energy generation was disseminated downwards to the local actors, while the lay knowledge needed to 'translate' this knowledge in specific local conditions was transferred upwards to the technical experts. As the Comparative Report for WP6 notes, formal occasions of learning are often not the best way to give local actors access to specialised expertises which need to be adapted to local conditions; such learning seems to be most successful when it is encouraged to occur 'naturally', through participation in the 'public' or 'civil spaces' provided through membership in a co-operative, a union, or a social movement. The importance of the spaces for learning provided by the organic social movement (farm walks, festivals, food markets etc) were a significant backdrop to several of the projects studied in the Irish country reports, for example, as were the mechanisms for dissemination of 'pooled knowledge' around Skye (word of mouth, mentoring schemes, pamphlets and newsletters) in the Scottish country report for WP6.

Differentiated knowledges and the issue of 'participation'

The discussion above suggests that projects for rural development are most likely to be successful when they bring together combinations of expert and lay knowledges and social organisational contexts which build on the cohesive effects of local tacit knowledge (in informal local networks, for example), and are shaped so as to encourage relatively egalitarian and open public or civil society spaces for multi-dimensional knowledge transfer and collective learning. Another way of saying this is that projects need to be 'participatory; in their approach and organisational structures. This form of participation, however, goes much further than providing occasions for local consultation, which usually means little more than ratification of a pre-existing project plan and objectives. It requires a deliberate strategy to understand the nature of existing social relationships in the locality and to design a project structure which will strengthen these and transform them into forms of active citizenship. While support from local and regional institutions is significant for the survival of development projects over time, that support needs to be carefully monitored to ensure that it doe not impose an elite relationship structure onto the situation; it is important for these institutions to understand when they should not intervene, as well as when and how they should. In effect, sustainable development at the local rural level must be development of civil society as much as of economic practices and relationships.

The idea of participatory development, or democracy in development, is a central element in the global discourse of Sustainable Development, which owes much of its current importance to two sources. One is the body of development literature referred to at the start of this Report (I.1.2) which first opened up the problematic of 'local knowledge' and how to ensure that this is given respect and status within what are often expert-driven development programs. A second is the global Environmental Justice movement which has shown not only how environmental degradation is often unfairly concentrated on poor communities and areas, but also how environmental conservation is often equally unfair to the poor of the world. A key feature of efforts to ensure environmental justice has been a deliberate strategy to empower poor groups and communities so that their understanding of their 'environment' and their knowledge about processes of change and degradation in it can be voiced and heard by those in power.(Brown and Mikkelsen 1990) Investigating the place and importance of lay knowledges in rural development can provide critical insights into both the necessity for, and the difficulties of, ensuring that development practices are collective and participatory. As we argued above (II.2.2), rural actors, particularly those whose livelihoods are closely linked to the productive use of local natural resources, are often found to have their own understanding of 'sustainable resource use' even if this does not use the terminology associated with Sustainable Development as a policy and political discourse. Livelihood versions of Sustainable Development are closely tied to the possession by such actors of lay knowledge about how to use and manage the natural resources they depend on in a way that is economically and culturally sustainable over time. This knowledge is not necessarily always correct, or unable to be improved by 'external' knowledges; but it is usually knowledge which has stood the test of time and experience, as well as embodying

normative and philosophical relations with nature which are fundamental to human care for nature but not always fully recognised in expert discourses. As we suggested above in our discussion of Sustainable Development as a discourse and concept, many scientists, particularly in ecological fields, are now very aware of the limitations of their own previous scientific assumptions about how to know and understand ecological systems and their interaction with productive and social systems, although this paradigm shift has not yet entered into and begun to inform policy discussions. Participatory forms of development need to be of a type which will open up dialogue between lay and expert knowledges on equal terms; but while saying this is easy, accomplishing it is extraordinarily difficult to do. This is perhaps the most significant lesson we have learnt from our research into knowledges in rural sustainable development in CORASON.

III: Conclusion

This report has argued that rural areas in Europe today are being shaped by a peculiar combination of homogenising and diversifying processes. While rural areas still remain and reproduce themselves as highly diverse, in their relationships to the natural resources and environmental configurations within which they are located, nearly all of those included in our research are evidently subject to the same trend, which we have here called ‘de-agriculturalisation’. In this we include the contraction of agricultural land-use, the declining proportion of farmers, fishermen and others dependent on natural resource use for a livelihood within the local economy, and the growth of non-productivist or even anti-productivist understandings of the countryside evident in much physical, spatial and economic planning practices which favour non-agrarian over agrarian land uses.

Both de-agriculturalisation and diversity raise questions about the continuing meaningfulness of the concept of ‘rural’ as a social identity and as a description of a recognisable, distinctive way of life. In CORASON we have often used the term ‘local’ in preference to ‘rural’. While probably all locally situated social groups are characterised by possession of a peculiar ‘local knowledge’, rurality is linked to the possession of a distinctive set of productive knowledges to do with the management and use of the available local natural resources, primarily for livelihood purposes. These knowledges are inherently diverse and, in the appropriate conditions, continue to promote diversity as an essential part of the rural experience. De-agriculturalisation, particularly where it is accompanied by economic or demographic crises and land abandonment, threatens the loss of such knowledges; but so too does the ongoing ’modernisation’ and intensification of agricultural production and its pressures to reduce diversity in plants and animals grown and in husbandry practices. Non-agricultural forms of economic development in rural locations, can, under certain conditions, provide social spaces for the creation of new local knowledges and for dynamic exchange and interaction between local and expert or standardised knowledge forms in expanded or reconstituted local social networks. Our research indicates that across rural Europe there are to be found many examples of rural development projects which promote either agricultural or non-agricultural forms of development through the valorisation of local resources, whether of landscapes, biodiversity, foods, culture or artisanal skills, in which the local knowledges

of rural inhabitants could be recognised as valuable to the development process. However, the cases in which they receive recognition, and in which the project is organised so as to build on their use, were, we found, quite few.

Across Europe, strategy documents for Sustainable Development generally do not address rural sustainable development as a specific issue or try to specify the forms which it should take. The CORASON project has tried to identify and contribute to a distinctive rural sustainable discourse for Europe. Central to it are the concepts of local diversity, and sustainable rural livelihoods. Enhancement of local environments through conservation, planning, and improved management practices needs to be balanced by an equal emphasis on the provision and safeguarding of rural sustainable livelihoods, where 'rural' is understood, as suggested above, as centrally involving the use and valorisation of local natural resources. The presence, and in our view the value, of persisting rural diversity highlights the importance of promoting sustainable development at and through the local level.

We have suggested earlier that analysing the career over time of 'Rural Development' and 'Sustainable Development' as two policy discourses which are shaping rural Europe today reveals an interesting divergence between them. While 'Rural Development' has become deconstructed and diversified in different practices over time (has increasingly opened itself up to becoming what in CORASON we have called a 'platform concept'), the 'Sustainable Development' discourse has moved rather in the opposite direction, and is dominated by an often narrowly technocratic interpretation as embedded in the Ecological Modernisation paradigm. We would argue that analysis of how Rural Development discourses have evolved over time can contribute to deconstructing and diversifying the concept of Sustainable Development in ways that make it more sensitive and responsive to local difference. Our research suggests the presence, if often understated and under-valued, of a discourse of economic innovation which is distinctively rural and which has much to offer for the achievement of a European 'knowledge society' which will be both socially cohesive and environmentally sustainable. But 'sustainability' in this context cannot be determined without reference to the specific and diverse features of local natures and natural resources. It requires interaction between diverse forms of knowledge to be successful – the standardised and universalising forms of expert/scientific knowledge, political-managerial or socially mobilising and social-organisational expertises, and 'lay' understandings of local nature which are oriented to its use and maintenance within a specific socio-economic-environmental complex.

Achieving the interaction of different forms of knowledge on relatively equal terms remains a key problem, in our view. Our case studies of a wide range of diverse rural development projects suggest that quite few of these envisage giving real control over local resources to local livelihood actors, rural communities or local stakeholders. Current understandings of 'public participation' and 'consultation' as held by national or regional governments and by other powerful actors in the development process largely treat this as a matter of giving the public access to relevant 'information' and/or listening to their 'opinions' once a given course of action has been decided; they rarely encourage

a more fundamental 'ownership' of the project by those most directly affected. CORASON research indicates that there is an urgent need to introduce 'governance', rather than 'government' or the use of traditional managerial practices, into rural sustainable development projects and to do this, as routine, at the formulation as well as the implementation stages. Education and learning for Sustainable Development need to be understood as processes involving not just the transformation of 'lay' knowledges and attitudes but also that of the relevant experts involved, so that the different and even contradictory values and purposes underlying each can be made the subject of open dialogue and debate. This will often require the deployment of social and organisational skills which can empower lay actors and groups, assisting them to rediscover, even to re-invent, and articulate effectively the lay understandings which they hold as members of a local territory and place. The process of engaging lay actors to participate in their own development is necessarily slow and involves considerable pre-reflection; but in our view, it is an essential stage in the progress towards the formation of a sustainable rural society for the next century.

References

Berkes, Fikret; Colding, Johan; Folke, Carl, eds., 2003. *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change.* Cambridge UK: Cambridge University Press.

Bicker, Alan, Paul Sillitoe and Johan Pottier, eds, 2004, *Investigating Local Knowledge: New Directions, New Approaches*. Aldershot: Ashgate

Bodiguel, Maryvonne, 2005,'Agriculture on the verge of the 21st century: the challenge of coming to terms with the environment', pp. 34-52 in D. Schmied, ed, *Winning and Losing: The Changing Geography of Europe's Rural Areas.* Aldershot: Ashgate.

Brown, Phil and Edwin J. Mikkelsen 1990, *No Safe Place: Toxic Waste, Leukaemia and Community Action*. Berkeley Calif.: University of California Press

Ellen (2000

European Commission 2001, *Unity, Solidarity, Diversity for Europe, Its People and Its Territory*, Second Report on Economic and Social Cohesion. Luxembourg: Office for Official Publications of the European Communities.

N. Evans, C. Morris, M. Winter 2002, 'Conceptualizing agriculture: a critique of post-productivism as the new orthodoxy', *Progress in Human Geography* 26, 3: 313-332.

Fold, N. and B. Pritchard (eds) 2005, *Cross-Continental Food Chains*. London: Routledge

Fonte, Maria, 2001, 'Restructuring rurality in Mediterranean Italy', pp. 263-82 in L. Granberg, I. Kovach, H. Tovey, eds, *Europe's Green Ring*. Aldershot: Ashgate.

Garfinkel, Harold, 1967, *Studies in Ethnomethodology*. Englewood Cliffs: Prentice-Hall.

Geertz, Clifford 1973, *The Interpretation of Cultures: Selected Essays*. New York: Basic Books

Giddens, Anthony, 1993, *New Rules of Sociological Method*. Oxford: Polity Press..

Gkartzios, Menelaos and Mark Scott, 2005, 'Urban-generated rural housing and evidence of counter-urbanisation in the Dublin city-region', pp. 132-58 in N. Moore, M. Scott (eds), *Renewing Urban Communities: Environment, Citizenship and Sustainability in Ireland.* Aldershot: Ashgate.

Granberg, Leo, Imre Kovach, Hilary Tovey (eds) 2001, *Europe's Green Ring*. Aldershot: Ashgate.

Granovetter, Mark, 1985, 'Economic action and social structure: the problem of embeddedness', *American Journal of Sociology* 91, 3: 481-510

Green, Anne, 2005, 'Employment restructuring in rural areas', pp.21-33 in D. Schmied (ed), *Winning and Losing: The Changing Geography of Europe's Rural Areas*. Aldershot: Ashgate

Hajer, Maarten A., 1995, *The Politics of Environmental Discourse: Ecological Modernisation and the Policy Process*. Oxford: Clarendon Press

Jacobs, Michael (1999), 'Sustainable Development: a Contested Concept', in Andrew Dobson (ed), *Fairness and Futurity*. Oxford: Oxford University Press.

Kovach, Imre and Eva Kucerova 2006, 'The Project Class in Central Europe: the Czech and Hungarian cases', *Sociologia Ruralis* 46, 1: 3-21.

Johnson, Debra, 2004, 'Ecological modernization, globalization and Europeanization: a mutually reinforcing nexus?', pp. 152-67 in J. Barry, B. Baxter, R. Dunphy, eds, *Europe, Globalization and Sustainable Development.* London: Routledge.

Latour, Bruno (1987) *Science in Action: How to Follow Scientists and Engineers Through Society.* Milton Keynes: Open University Press

Leach, Melissa, I. Scoones, B. Wynne (eds), 2005, *Science and Citizens: Globalisation and the Challenge of Engagement.* London: Zed

Long, Norman and Ann Long (eds) 1992, *Battlefields of Knowledge: the Interlocking of Theory and Practice in Social Research and Development.* London: Routledge

Marini, Matteo and Patrick H. Mooney 2006, 'Rural economies', pp. 91-103 in P. Cloke, T. Marsden, P. H. Mooney, eds, *Handbook of Rural Studies*. London: Sage

Marsden, Terry, 2003, *The Condition of Rural Sustainability*. Assen: Royal van Gorcum.

Munkejord, Mai Camilla, 2006, 'Challenging discourses on rurality: women and men inmigrants' constructions of the good life in a rural town in Northern Norway', *Sociologia Ruralis* 46, 3: 241-56

Nowotny, Helga; Scott, Peter; Gibbons, Michael, 2001. *Rethinking Science. Knowledge*

and the Public in an Age of Uncertainty. Cambridge UK and Malden USA: Polity Press.

Ragin, Charles C. (1987), *The Comparative Method (Moving Beyond Qualitative and Quantitative Strategies).* Berkeley/London: University of California Press.

Scoones, I., 1999, 'New ecology and the social sciences: what prospects for a fruitful engagement?', *Annual Review of Anthropology*, 28: 479-507

Schmied, Doris, 2005, 'Winning and losing in Europe's rural areas', pp. 1-18 in D. Schmied (ed), *Winning and Losing: the Changing Geography of Europe's Rural Areas,* Aldershot: Ashgate.

Smith (2000) "Innovation indicators and the knowledge economy: concepts, results and policy challenges". Paper for the EC Conference on Innovation and Enterprise Creation: statistics and indicators (23-24 November 2000), Sophia Antipolis, France (http://www.cordis.lu/innovation-smes/src/statconf5.htm).

Thompson Klein, J. et al, (eds) 2001, *Transdisciplinarity. Joint Problem Solving among Science, Technology, and Society*. Basel, Boston, Berlin: Birkhäuser.

Tovey, Hilary, 1998, 'Rural actors, food and the post-modern transition' in Leo Granberg, Imre Kovach (eds): *Actors on the Changing European Countryside*, Budapest, Hungary: Institute for Political Science. pp. 20-43

Van der Ploeg Jan Douwe et al, 2000, 'Rural development: from practices and policies towards theory', *Sociologia Ruralis* 40, 4: 391-408

Van der Ploeg, Jan Douwe and Henk Renting 2004, 'Behind the "Redux": a rejoinder to David Goodman', *Sociologia Ruralis* 44, 2: 233-42

Appendix 1
List of participating partners and their institutions

Appendix 2
Input paper for WP2

Appendix 3
The Comparative Reports