

# ESPON Project 2.1.3

## The Territorial Impact of CAP and Rural Development Policy



This report represents the final results of a research project conducted within the framework of the ESPON 2000-2006 programme, partly financed through the INTERREG programme.

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## Foreword

The research reported in this paper was undertaken within the ESPON 2000-2006 Programme as part of Project 2.1.3 "The Territorial Impact of the CAP and RDP". The project was co-ordinated by the Arkleton Institute for Rural Development Research, University of Aberdeen, and included the following partner institutions and personnel:

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The objective of the research project was to deepen the understanding of territorial impacts of the EU's Common Agricultural Policy and Rural Development Policy. The aims and objectives are explained more fully in Part II - Chapter 1: Introduction. The contents of this report are the responsibility of the authors and do not necessarily reflect the opinion of the ESPON Monitoring Committee.

ESPON Project 2.1.3  
The Territorial Impact of CAP and Rural Development Policy

Final Report, August 2004

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The Territorial Impact of CAP and Rural Development Policy

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**Part I: Summary**

# **1 Executive Summary**

## **1.1 Principal Conclusions**

The principal conclusion from this project is that in aggregate the Common Agricultural Policy (CAP) of the European Union (EU) has worked against the European Spatial Development Perspective (ESDP) objective of balanced territorial development, and has not supported the ESDP objectives of economic and social cohesion. Moreover, in terms of polycentricity at the EU level, Pillar 1 of the CAP appears to favour core areas more than it assists the periphery of Europe, while at a local level CAP favours the more accessible areas. The EU's Rural Development Policy (RDP), as represented by Pillar 2 of the CAP, has been of more limited effect. However, some components, such as agri-environmental measures in the more prosperous Member States, and the Liaisons Entre Actions de Développement de l'Economie Rurale (LEADER) Community Initiative in some regions, show promise in terms of effectiveness and EU-level cohesion. The impact of the CAP/RDP in the New Member States (NMSs) which joined the EU in 2004 has yet to be realised, although lessons can already be learned from the experience of applying Special Action for Pre-Accession measures for Agriculture and Rural Development (SAPARD).

In recent years, the CAP has undergone a series of reforms, some of which have begun to ameliorate these conflicts of objectives. For example, direct income payments tend to be distributed in a manner more consistent with cohesion than is market price support. Similarly, higher levels of Pillar 2 payments are associated with more peripheral regions of the EU than is the case with Pillar 1 support. Nevertheless, there is considerable scope for both Member States and the Commission to make the CAP more consistent with the objectives of the ESDP. It is encouraging that senior officials of the European Commission's Directorate-General for Agriculture and Rural Development have placed importance on "the difficult question of how we can centre our policy more around the territorial instead of the sectoral, i.e. agricultural, dimension of rural development" (Ahner, 2004, 12). This is reflected to some limited extent in the proposal that 7% of the Rural Development Regulation (RDR) spending for 2007-2013 will be devoted to LEADER-type measures.

The scientific evidence suggests that there is scope to amend Pillar 2 to favour cohesion, and that this holds out the best potential for amending agricultural and rural development policy and policy instruments to support territorial cohesion and the ESDP. We concur with the

conclusions of Dwyer *et al.* (2002) that “the RDR is an innovative tool with considerable potential to support sustainable rural development throughout Europe, particularly in promoting a more integrated and multifunctional approach to rural land management, environmental integration and economic and community development,” but that this potential is not currently being realised. “Planning and implementation of the RDR and SAPARD do not reflect the ambitions of the Commission’s objectives” for the Second Pillar, because of: “lack of time for planning; complex administrative procedures; inadequate funding; and limited incentives for countries to re-think and re-design existing policies to reflect fully the scope of this new instrument and its requirements.” Moreover, the Second Pillar is still focused mainly on agricultural producers rather than on territorial rural development, and this will remain so under the revised RDR for 2007-2013.

### **1.1.1 Introduction**

ESPON Project 2.1.3 commenced in August 2002 with the overall aim of deepening the understanding of territorial impacts of the EU’s Common Agricultural Policy and Rural Development Policy (CAP/RDP) through the provision of a standardised database and an analysis of territorial trends covering the EU-15 and neighbouring and accession states.

In this study, therefore, empirical analysis has been conducted at NUTS3 level (according to the EU’s Nomenclature of Territorial Units for Statistics system) using data from a variety of sources, some directly recorded at this level but most requiring derivation from sample and/or higher-level (e.g. NUTS2) values. The quality of the data is discussed further below, but it is believed to be substantially better than previously available and that our results are robust and reliable, except where caveats are explicit.

European agriculture occupies a central role in the economy, society and environment of the continent, but is extremely diversified, geographically and structurally. Moreover, the sector has experienced many significant technological developments, and has been subject to a high degree of policy intervention, under national policies, under the CAP within a gradually expanding European Community and Union, and under more or less direct state control in the ex-Comecon countries of Central and Eastern Europe. These characteristics make an “agricultural geography” of Europe highly complex.

Agriculture forms the basis of the European food supply chain. Socially, culturally and symbolically, agriculture occupies a unique role as a traditional “way of life”, from which identity is derived. Environmentally, agriculture “remains a major source of pressure on the environment ... becoming even more intensive and specialized” (European Environment

Agency, 2001), while also having a positive role in maintaining valued habitats and landscapes. Structurally, European agriculture has become more capital-intensive, more large-scale (fewer, larger commercial farms), less self-sufficient, and more regulated (partly for the purposes of agricultural subsidy administration, but also for reasons of food safety, animal welfare, etc.). Many of these developments were observable, though proceeding at different speeds and in different ways, in the ex-socialist countries before the start of transition in 1989.

For the purposes of this study, the scope of the EU's CAP/RDP is taken to be the interventions in farming and farming-related activities undertaken by the Commission's DG Agriculture, for the purposes of pursuing Community objectives as set out in the various EU Treaties. So far, the design and implementation of the CAP have been little touched by the territorial concepts of balanced competitiveness, economic and social cohesion, and polycentricity set out in the ESDP and in the Third Cohesion Report, although the Policy has begun to address the goal of environmental sustainability. Neither the Agenda 2000 nor the Mid-Term Review (MTR) reforms of the CAP, into Pillar 1 (comprised of market support, mostly non-budgetary, and direct payments) and Pillar 2 (agri-environmental and other 'rural development' expenditures), have been based on cohesion or other territorial criteria. The CAP thus remains focused on its own historic objectives, set out in the Treaty of Rome, and its subsequent evolution has reflected other internal and external objectives and pressures.

### **1.1.2 The Distribution of CAP Support**

A first question is whether CAP expenditures are distributed in accordance with balanced territorial development. Correlation analysis suggests that *total CAP Pillar 1 support does not support territorial cohesion, with higher levels of CAP expenditure per ha of agricultural land being strongly associated with more prosperous regions*. Direct income payments appear to support cohesion objectives but are dwarfed by the market price support element of Pillar 1 (56% of total agricultural support). This conflict with cohesion objectives is not surprising, since Pillar 1 has never been a cohesion measure. However, the Rural Development Regulation (RDR) is a cohesion measure, and, while the evidence on Pillar 2 is more mixed, *expenditure under the RDR does not appear to support cohesion objectives either*.

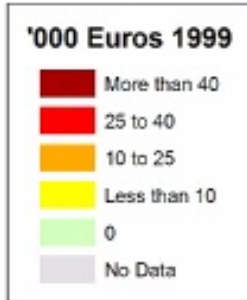
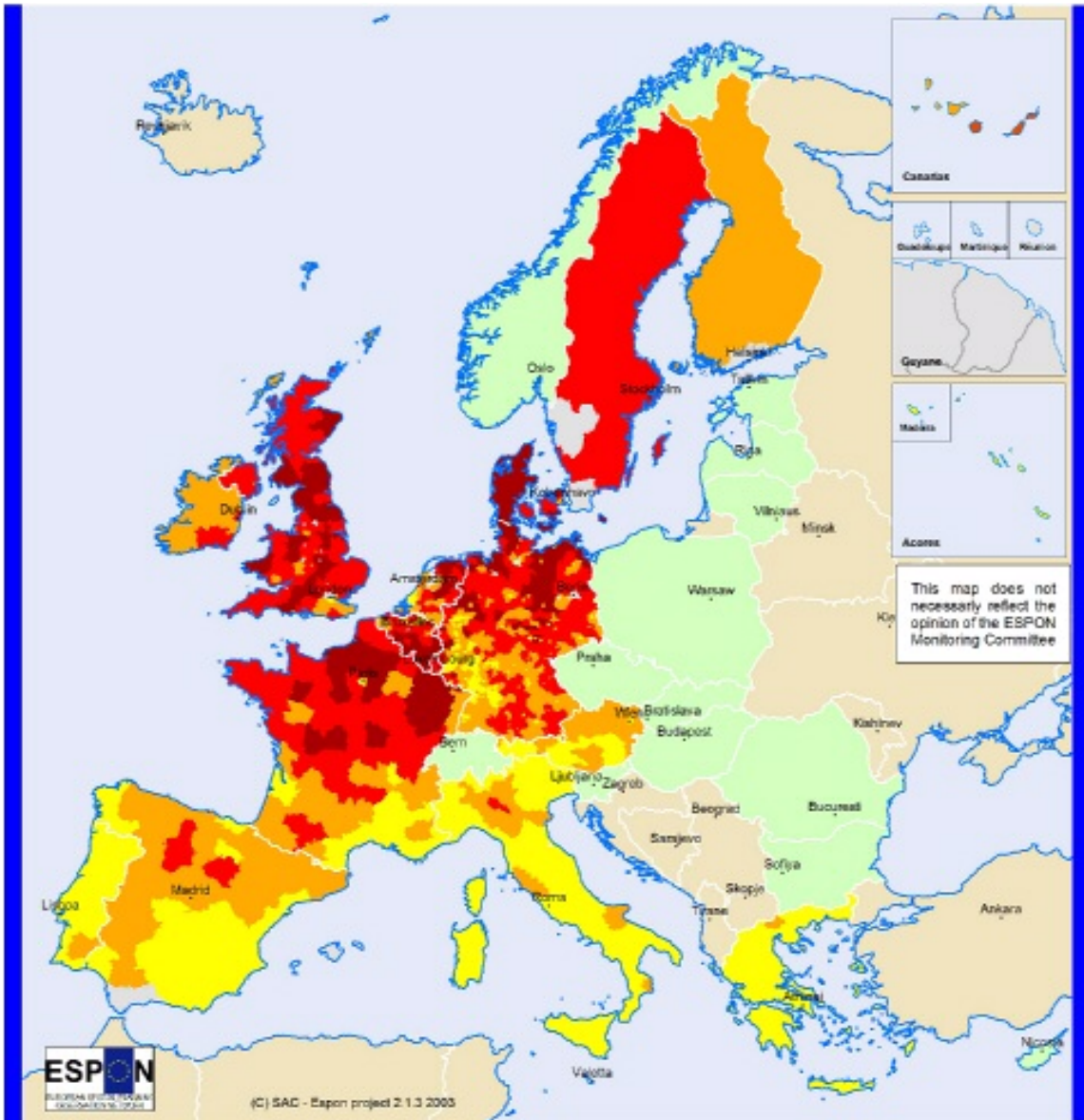
*The level of total Pillar 1 support was found to be generally higher in more accessible regions, and lower in more peripheral regions at all spatial scales (local, meso and EU-level)*. Multiple regression analysis shows that total Pillar 1 support is strongly associated with a region's average farm business size and land cover indicators. *In contrast, Pillar 2 support was found to be higher in more peripheral regions of the*

*community. In this case, multiple regression analysis found higher levels of support tended towards regions with smaller farm sizes while land cover variables were found to be less important explanatory factors. For both Pillars, after allowing for these other factors, no statistically significant relationships are observed with Gross Domestic Product (GDP) per head in NUTS3 regions. In other words, the strong tendency for Pillar 1 support to go to richer regions of the EU-15 may be attributed to their larger farms, their location in the core of Europe, and their farm type.*

*From the numerical analysis, then, it appears that the CAP has uneven territorial effects across the EU-15, which run counter to cohesion objectives, particularly in terms of its Pillar 1, and especially market price support. The "rural development" Pillar 2 may in some cases be more consistent with cohesion within countries, but runs counter to EU-wide cohesion in the way it is currently structured.*

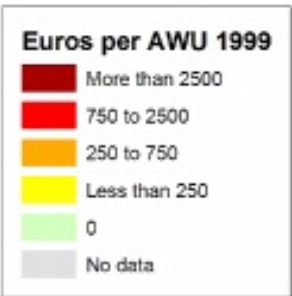
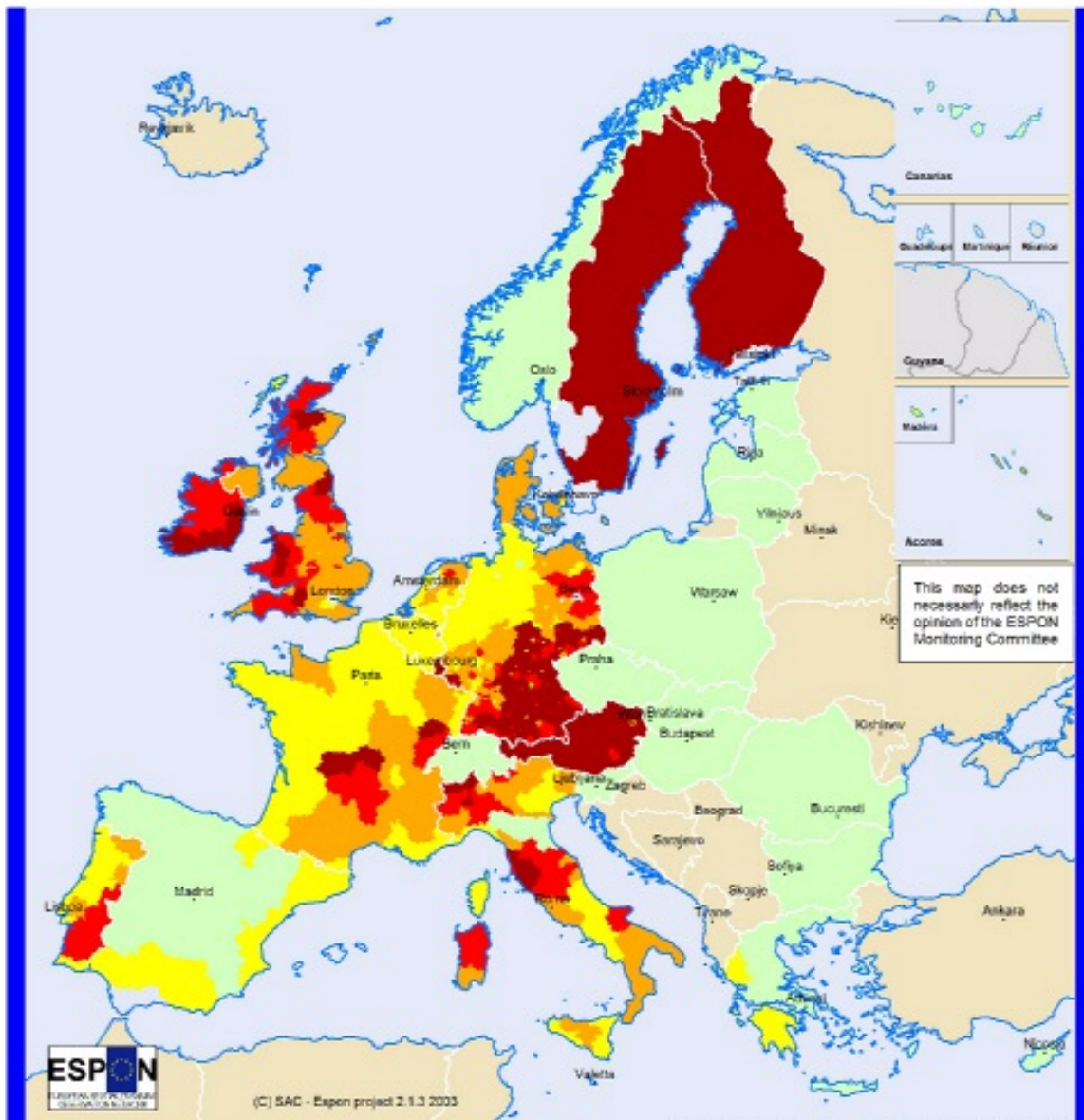
Maps 1.1 and 1.2 illustrate these key findings. Map 1.1 shows that Pillar 1 support per Agricultural Work Unit (AWU) is concentrated in prosperous northern areas of Europe, while Pillar 2 support is more dispersed, though still mainly reaching richer regions.

**Map 1.1: Total Pillar 1 Support per Agricultural Work Unit, 1999**



(C) EuroGeographica Association for the administrative boundaries  
Origin of the data: Project 2.1.3 estimates  
Source of data : Espon Data Base

**Map 1.2: Total Pillar 2 Support per Agricultural Work Unit, 1999  
(based on Farm Accountancy Data Network data)**



(C) EuroGeographica Association for the administrative boundaries.  
 Origin of the data: Project 2.1.3 estimates  
 Source of data: Espon Data Base



### 1.1.3 Detailed Analysis of Selected Instruments

Our study considered in more detail these impacts, both through a number of case studies of the use of measures in different countries and regions, and through the CAPRI model of the impact of the MTR proposals.

A case study of Irish agricultural and rural development illustrates the kinds of **adaptations made by farming households**. First, the territorial impacts of agricultural and rural development policies are differentiated according to the resource and structural characteristics of regional economies. Secondly, there is a longer-term, underlying process of agricultural restructuring onto which policies are layered. Thirdly, policies may have inconsistent outcomes – as for example when farm price policies have territorial impacts that run counter to cohesion objectives. Finally, it is clear from the Irish case study that in the more commercial farming regions a comprehensive range of agricultural policies and/or agriculture-centred rural development policies will not provide a guarantee of rural demographic viability. Even in strong agricultural areas without a strong non-farm based economy, population trends were weak. *There is a need for greater complementarity between agricultural policy measures and policies for broader regional development focused on the specific conditions of the different regions. In the New Member States this will be crucial.*

Turning to **agri-environment measures**, these were found to contribute to prudent management of and protection of nature and cultural heritage through encouraging a reduction in inputs of inorganic fertilisers, conservation of habitats, and preservation of the cultural landscape. Agri-environment schemes are particularly suited to the encouragement of appropriate land management. The provision of support for organic production, given a high priority in several countries, has the potential to contribute to balanced competitiveness through high quality food production targeted at niche markets. Agri-environment programmes can also make an important indirect contribution to economic and social cohesion through the provision of income support in marginal areas, thus contributing to the retention of rural population.

Even though these measures are usually horizontal, especially in respect of organic production and training, such programmes have been largely identified with environmentally sensitive and extensive farming areas, with the notable exception of Austria where the aim is the 'ecologicalisation' of all agricultural activity. *It appears that in lowland areas of more intensive farming, regulation through cross-compliance is more effective than agri-environmental measures.* Incentives are generally not adequate to encourage participation among more

intensive and commercially oriented farmers whilst eligibility criteria are also a barrier to participation. Moreover, the effectiveness of the programme has also been compromised by poor targeting and the continuation of production-linked support policies associated with environmental problems (i.e. support for intensive farming with potentially negative environmental impacts). Finally, *the statistical analysis shows clearly that agri-environmental measures are used more in the more prosperous regions of northern and western Europe and therefore have not so far supported the ESDP objectives of balanced development or cohesion, even though they do have the potential to do so.*

A second measure considered was **early retirement schemes** (ERSs), which have been used to pursue both social and structural objectives. Their design and uptake has varied by country and depend largely on national objectives and situations. *It was concluded that ERSs have been more successful in ensuring the continuation of family farming and population stabilisation than in enhancing competitiveness and structural adjustment.* However, in the countries with the highest rates of participation (France, Greece and Ireland), the structural effect was little different from that which would have occurred anyway, albeit over a slightly longer time scale. These time gains offered by the ERSs are important only in relation to the depopulation problems and the demographic scarcity of farm successors prevailing in Less Favoured Areas (LFAs). Within France, Ireland, Norway, Finland and Spain, a distinct spatial pattern of ERS adoption exists: the highest levels of adoption were reported in areas of least need (i.e. prosperous farming regions) and where there are higher numbers of young farmers. Population density emerges as an indicator of the regional propensity to early retirement. *On this basis, early retirement schemes did not appear to offer benefits either in terms of balanced competitiveness, territorial cohesion or sustainable development, except in a very few LFAs.*

**LFA compensatory payments** were the next measure considered. The spatial differences of European agriculture are reflected in the application of this scheme. *In contrast to what one would expect from a 'compensation' measure, the statistical analysis reveals the application of the scheme is largely correlated to the degree of farm net value added, i.e. higher compensatory amounts are applied in more prosperous regions, with much less use in "poorer" regions,* largely because of national differences. The lower commitment of southern Member States is partly due to the prevalence of arable land and permanent cropping in their LFAs (the LFA scheme is largely oriented towards livestock farming) and those member states' focus on modernisation schemes and the improvement of processing and marketing structures. *A major reason for this spatial distribution of funds is that the reference level is set at the national level, and not at*

*the European level, such that differences between Member States remain unchanged.*

The steady extension of the total LFA area since the initiation of this measure in the 1970s reflects the political process of defining LFA borders, and gives rise to further consideration of the criteria of delimitation and internal differentiation. The review of the intermediate zones proposed by the Commission in July 2004 will address this issue. LFA payments often underpin high nature value (HNV) farming systems. The existence of HNV farming systems in these areas points to the beneficial role of LFA payments for nature conservation and biodiversity, especially now that these payments are decoupled from livestock numbers. However, these farming patterns are highly threatened by impending marginalisation processes which are particularly relevant for peripheral situations, including regions of the new Member States.

The final measure considered in these case studies was **RDR Article 33 and LEADER-type measures**. *The evaluation studies of LEADER II and the mid-term evaluation of LEADER+ suggest that such initiatives have a considerable impact on the development of rural regions, although their budget is small compared to mainstream programme instruments.*

*The ex-post evaluation of LEADER II found the programme both efficient and effective. It proved to be adaptable to the different socio-economic and governance contexts and applicable to the small scale, area-based activities of rural areas. It could therefore also reach lagging regions and vulnerable rural territories.* LEADER activities induced and conveyed responsibility to local partnerships, linking public and private institutions as well as different interests of various local actors to a common strategy. A profound change from a passive to an active attitude could be achieved among many local actors.

In countries with a long-standing tradition of pluriactivity, agricultural diversification formed part of multi-sectorial strategies, often in combination with rural tourism. A good example for the multi-sectorial approach based on agricultural products and rural tourism is analysed in the Austrian LEADER case study. In some other countries, LEADER projects focused mainly on environmental measures trying to protect and further develop existing natural capital.

LEADER is not an instrument to change local economic structures or revalorise the local economy in a direct way, but rather an instrument to stimulate processes in the local economy so leading to indirect but enduring benefits. Many core projects do preliminary work in activating rural actors, and this is then a stimulus to further economic activities. *The potential of LEADER lies especially in the improvement of intangible factors, in raising awareness, in strengthening strategy and cooperation*

*within the region. This often builds the basis for the provision of better services and more competitive products in the longer term.*

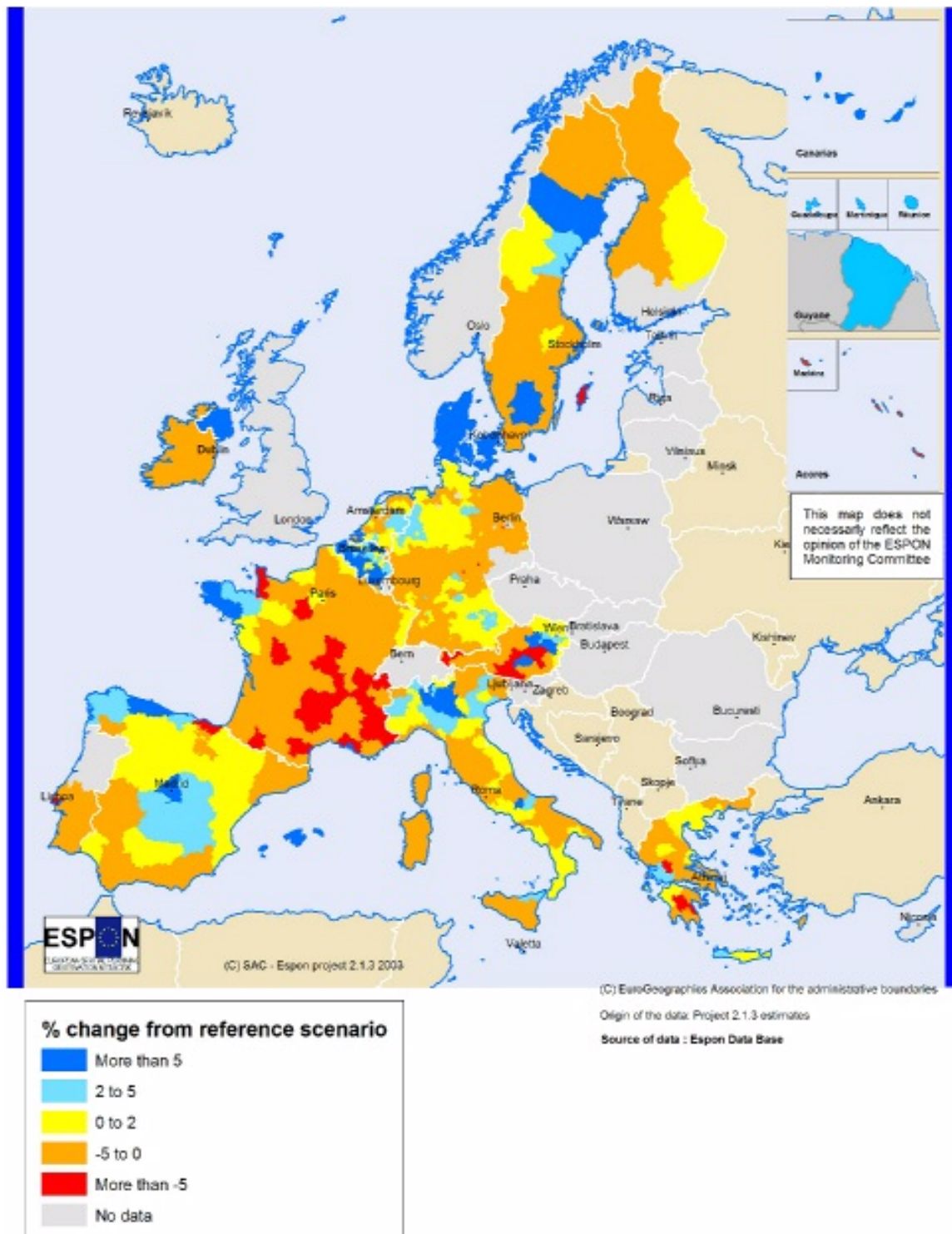
#### **1.1.4 CAP Reforms – no significant effect**

Following the case studies of these specific Pillar 2 measures, the impacts of the Commission's proposals for the Mid-Term Review (MTR) of the CAP were analysed using output from the CAPRI (Common Agricultural Policy Regional Impact Analysis) modelling system originally developed at the University of Bonn during 1997-1999. The system involves physical consistency balances, economic accounting, considerable regional specification of (e.g.) set-aside rates, single farm payment (SFP) rates, etc., and standard micro-economic assumptions. For non-EU regions, Producer/Consumer Support Estimate (PSE/CSE) data published by the Organisation for Economic Cooperation and Development (OECD) in Paris are used. Given the objectives of our study, analysis was restricted to considering the estimated impact of MTR on farm incomes in 2009 relative to their level in the absence of reform.

The principal conclusions of this analysis are that farm incomes in the EU-15 (including SFPs) are expected to be only marginally affected by the MTR proposals, with changes of more than 5% apparent only in a small number of NUTS3 regions in France (mainly in the south) and in Austria (both show falling incomes) and in some or all of Northern Ireland, Belgium, northern Italy, Denmark and Sweden (all show rising incomes). These patterns are illustrated in Map 1.3 overleaf.

*Analysis found no statistically significant relationship between MTR impacts and cohesion indicators (GDP per head, unemployment rate and population change). Importantly, this suggests that the latest reforms of the CAP will do nothing to remove the existing inconsistencies between the CAP and cohesion policy unless they are accompanied by specific national priorities aimed at regional specific programme implementation.*

**Map 1.3: Percentage change in Farm Incomes resulting from the Commission's Proposals for the Mid-Term Review of the CAP.**



### 1.1.5 Good Practice in Rural Development

It is now generally understood that a purely sectoral approach is less successful in enhancing and stabilizing the performance of a region,

whether rural or urban, but despite this the notion that rural development goals widely overlap with agricultural policy is still characteristic of the CAP. *An integrated, territorial approach, sensitive to the diversity of rural circumstances, rather than a sectoral approach, is needed to ensure regionally balanced development and territorial cohesion.*

While tangible factors such as natural and human resources, investment, infrastructure and economic structure have traditionally been seen as the main determinants of differential economic performance, more recent research has highlighted the important role of 'less tangible' or 'soft' factors, including various kinds of social, cultural, institutional, environmental and local knowledge which constitute the basic capital for regional development. Social capital, especially, has been identified as crucial. A recent EU-funded project on the Dynamics of Rural Areas (DORA) has suggested that it is the relationship between the tangible and less tangible resources, and how these interact in the local context, which conditions opportunities and constraints for local development: "It is not so much the tangible resources themselves that matter for economic performance, but the way the local people are able to exploit those available to them" (Bryden and Hart, 2001, p.45). Thus 'less tangible' factors determine the efficiency and effectiveness with which tangible resources are used and are vital to rural development.

A conclusion emerging consistently from many recent studies, then, is that *social* processes are fundamental to rural development. In this sense, social capital has a vital role in rural development, along with appropriate structures of governance. The role of public policy and development agencies is seen increasingly as to trust, foster and enable local action. This has a number of implications for policy.

The EU-funded RESTRIM project (Arnason *et al.*, 2004) concluded that public policy should support the social processes that are as essential to rural development as 'hard' economic intervention (in the same sense that software is as necessary as hardware to computing). In practice, this means supporting *rural community development*, which is to be understood as an approach to working with and to building the capacity of individuals and groups within their communities. This approach seeks to strengthen communities through enhancing people's confidence, knowledge and skills, and their ability to work together. As noted above, this type of approach has been piloted successfully in the EU under the LEADER Community Initiative, and the Commission has proposed that this is continued and encouraged after 2007 within a new single rural development fund.

A number of studies have also suggested that supporting the development of *vertical and horizontal networks* in community action can transcend the dichotomy of endogenous/exogenous development ('bottom-up/top-down'). Issues will arise of where power and control lie in these networks, and of whose problems they are addressing and who benefits. Public bodies and development agencies should be alert to these aspects when offering support and when working with voluntary and community bodies. *Training* of local and regional officials, and others, in the social processes surrounding local development is crucial.

Thirdly, in offering grants and other support, development agencies should prioritise *collective action which is both inclusive and reflexive*, and should support new arenas for interaction. Good networks are inclusive, facilitating collective learning, allowing sharing of success and generating wider social acceptance. In this context, it is notable that most expenditure under the EU Rural Development Regulation has hitherto been targeted largely at individuals rather than collective activities. The RESTRIM research noted the scope for the RDR to be more effective through promoting collective action.

All recent studies have concurred that appropriate *structures of governance* are also essential to facilitate local leadership and innovation. Rural areas and people require strong support from national government and the EU, as well as from regional agencies and the private sector, and it is essential that these are set in a coherent framework within which participative local development initiatives can flourish. Within such a framework, rural development can be pursued which is locally embedded, socially inclusive and linking social scales. Successful development of this type frees rural areas from stereotypes of backwardness, remoteness and parochialism, and yet allows them to retain control of distinctive and valued cultural and environmental features, with long-term beneficial results. Both the DORA and RESTRIM projects emphasised the importance of effective and open governance, with a positive attitude to small local enterprises and entrepreneurs, and local public institutions with sufficient autonomy to adapt policies and specific measures to assist with the collective needs of local enterprises. Furthermore, open and inclusive 'soft' networks are positively related to the mobilisation of entrepreneurial capacity and local initiative.

In the current discussion of rural development, the cultivation of *rural amenities* is often seen as a means of generating new economic opportunities. Rural amenities are strongly associated with specific territorial attributes. Their value stems from the unique features of a given region which cannot be (easily) replaced or exchanged (less-mobile). Thus, it gives the region a chance to enhance its competitiveness through 'cultivating' the place-based social, cultural,

and environmental assets. The successful cultivation of rural amenities needs both the regional identification of natural and cultural amenities and favourable structures of decision-making processes in the region. This includes for example local institutions with capacity to recognise the market value and who are able to organize and co-ordinate supply and promotion of the specific local amenity. The main conclusion from the RESTRIM project was that this is a highly tensioned process that cannot be simply controlled by key development actors: it is important to reflect a plurality of cultural identities and to link this to cultures of everyday life through a broad participative process. Newly constructed regional identities will only succeed in mobilising common efforts towards shared objectives where these supplement and build on multiple local identities.

Some examples of either innovative approaches or representative use of the RDR framework are considered in Chapter 8 of Part II. Innovations in RDP across Europe have occurred both at the level of programme design and resourcing, and at the level of individual projects and initiatives. Many examples demonstrated flexibility and tailoring of measures to meet local circumstances and potential. These included:

- differentiation of compensatory allowances for LFAs in Austria
- Ireland's Rural Environment Protection Scheme (REPS)
- CTEs (contrats territorial d'exploitation), France
- "Cheese Route Bregenzerwald", LEADER, Austria
- Rural Tourism in Italy
- PRODER programmes in Andalucia, Spain
- the POMO and POMO+ programmes, Finland

The achievement of ESDP objectives relating to prudent management of resources depends on effective integration of environmental measures within the CAP. Possible mechanisms for integration include cross-compliance and verifiable environmental standards as well as a significant expansion of Pillar 2 measures. In order to raise effectiveness, Member States should define measures with specific environmental objectives rather than focussing on agricultural practices as such. The potential benefits of an integrated approach to EU structural and regional policy instruments are also supported by the conclusions from the Schramek *et al.* (1999) report which recommended improved integration of existing structural and regional policy and instruments such as the LFA scheme and LEADER with agri-environmental policy.

In terms of LFAs, Member States have developed nationally shaped instruments which are particularly adapted to their specific situations and priorities. We can discern, therefore, a great variety in the



application of this instrument across the EU. Only in some countries has a detailed differentiation of production difficulties within the areas been implemented (e.g. Austria). Elsewhere, the level of support fails to reflect production difficulties. As a result the measure is criticised, in particular with regard to under-/over compensation, local/regional equity, and lack of international consistency of support levels/income levels. *The LFA instrument should address more directly these objectives by differentiating payments according to, and including criteria for the measurement of, production difficulties.* Administration costs of such systems are less high than might be expected since new technologies (e.g. aerial photogrammetry and remote sensing, GIS applications) allow for a highly advanced (automatically updated) control framework which may be used in conjunction with requirements for other CAP payments. More difficult policy choices have to be made as regards social as well as environmental questions, e.g. the desirability of maintaining traditional or at least local farm management (instead of incomers or "remote" management), and the "problems" of dealing with micro holdings maintained privately for seasonal and/or recreational use.

Finally, the LEADER Community Initiative (CI) is one of the four remaining EU CIs for the period 2000-2006, but has a very limited budget (€2.02m), compared to the overall Structural Funds and CAP budgets. Nevertheless it is the programme which is most closely related to the concept of integrated rural development, and provides a multitude of good and bad examples of rural development under different contexts. Moreover this pilot programme has had a crucial impact on the political discourse and on the discussion of regional development in peripheral areas. Beyond the economic sphere the programme is important for other spheres of rural life and policy, due to its multi-sectoral and integrative character.

LEADER provides a flexible programme structure which has to be adapted to the context of the rural regions, and has achieved interesting results for small scale regional development. Numerous case studies (beyond those carried out under the ESPON programme) elaborate on the starting period, the difficulties and outcome of initiatives. Some of them also underline the requirements for the successful application and institutional prerequisites, including the following characteristics of action-centred networks: flat, flexible organisational structures involving teamwork and partnership; equality of relationships among relevant stakeholders; vision and value-driven leadership, and emphasis on participation and organisational learning. The core of the programme is the emphasis on the multi-sector approach, which requires a high commitment by participants to overcome institutional and deeply entrenched personal difficulties with regard to cooperative activities and new ways of organisation at the

local level. This discussion has turned out to become very important for the discussion of regional governances (see above).

During the LEADER programme period, evidence has emerged of an increasing level of rural development 'know-how' and an improved capacity of partnerships to deliver programmes for rural development. Local Action Groups (LAGs) no longer see themselves mainly as a provider of local funding on a project-to-project basis, which often resulted in a 'scatter-gun' approach to development. Instead, the change to a programme-driven approach has enabled LAGs to manage and target resources in a more effective and pro-active manner. Nevertheless, in some respects, participation remains unsatisfactory. In particular, different groups of society are underrepresented and LAG strategies reflect local power relations in the LEADER areas. An enlargement of the groups addressed and integrated in the process is one of the objectives of the LEADER+ (e.g. stronger participation of women, young people, etc.) and would further enhance the effectiveness of this approach.

### **1.1.6 Policy Proposals**

It may be helpful to begin by summarising the main conclusions of the Salzburg Conference organised by the European Commission in November 2003. There was consensus around three broad objectives:

1. a competitive farming sector;
2. managing the land for future generations; and
3. a living countryside.

It should be noted that the first of these objectives is inherently non-spatial, except insofar as the agri-food sector can find and add value to local and regional farm output. It should not be expected that agriculture, even if diversified or innovated, can in future support previous levels of farm occupiers and incomes. In regions which "lag behind" despite best efforts, policy attention directed at territorial cohesion must shift even further towards alternative sources of economic activity and income. Objectives 2 and 3 above are more capable of direct territorial interpretation in policy terms, but only if careful account is taken of relative territorial capacities and resources.

The Salzburg conference also concluded that rural development policy should apply in all rural areas of the enlarged EU; and that rural development policy must serve the needs of broader society in rural areas and contribute to cohesion. In other words, rural development should be more than just a sectoral approach linked to agriculture. It clearly has an important territorial dimension.

The European Commission has taken these conclusions, along with a number of evaluation studies, as a main point of departure in reviewing its rural development policy. In particular, it has proposed grouping the different measures in the RDR around the three core priorities suggested by the Salzburg conference, along with a fourth axis of LEADER-type measures. Such an approach envisages substantial flexibility for member states and regions in the implementation of these measures, while at the same time promoting EU strategy by prescribing a minimum proportion of the budget to be devoted to each heading. Thus, at least 15% of each country's national envelope has to be spent on Axis 1 (Improving competitiveness of farming and forestry), at least 25% on Axis 2 (Environment and land management); and at least 15% on Axis 3 (Improving quality of life and diversification), and in addition at least 7% on a new Axis 4 (LEADER). Moreover, the RDR budget would be increased substantially to €13bn per annum (Commission, 2004).

Earlier, a senior official had suggested that as much as 30% might be earmarked for mainstreaming LEADER (Courades, 2004), with permanent support structures for capacity-building, networking and vertical and horizontal coordination. *On the basis of our scientific conclusions, we would also recommend larger spending on such a LEADER-type approach if territorial cohesion is to be pursued. Nevertheless, the more gradualist proposals will allow the LEADER model to be applied on a wider scale by the Member States who wish to do so, "while for the EU as a whole continuation and consolidation of the LEADER approach will be safeguarded"* (Commission, 2004). The Commission argues that its proposals "will ensure better focus on EU priorities, and will improve complementarity with other EU policies (e.g. cohesion and environment)." Our findings support this claim.

Specific policy proposals:

*We would propose, first of all, that the Pillar 2 budget should be increased progressively, as anticipated in the Agenda 2000 and MTR agreements and in the Commission's proposals for the 2007-13 RDR. This might be achieved either through continuing increases in the rate of compulsory modulation or preferably through the more substantial realignment of the Agricultural Fund towards Pillar 2. This is desirable because the RDR incorporates cohesion objectives, in contrast to Pillar 1.*

This proposal follows directly from our conclusion that Pillar 2 offers the best potential for amending agricultural and rural development policy to support territorial cohesion and other ESDP objectives. The proposals for the 2007-13 RDR represent a significant step in this direction, and the more quickly support is transferred from Pillar 1 to Pillar 2, the

more consistent the CAP will become with cohesion objectives. Moreover, as the Buckwell Report argued, the expenditure of funds under the CAP will be more defensible if they are directed towards 'public goods' such as the cultural and natural heritage, environmental benefits and sustainable rural communities.

*We recommend that the new Rural Development Regulation 2007-2013 should contain a broader range of permitted measures under the four proposed axes, building on the lessons from LEADER and Objective 5b by including more measures which address sustainable rural development beyond the agriculture sector and which have a territorial dimension.* Encouragement should be given to innovation. The revised RDR 2007-13 strikes a balance between pursuing an overall EU strategy for rural development and greater subsidiarity, allowing RDP to be tailored more appropriately to the diversity of territorial needs across rural Europe, but most measures are still to be sectoral rather than territorial. More measures should be open to non-farmers and build on the lessons of LEADER, Objective 5b and DORA, as implied by 'mainstreaming' LEADER and the Salzburg conclusions.

*It is important these territorial measures include supporting rural community development – understood as an approach to working with and to building the capacity of individuals and groups within their communities.* To this end, in offering grants and other support, local development agencies should prioritise *collective action which is both inclusive and reflexive*, and should support new arenas for interaction and collective learning.

*We recommend that the Commission keep under review the rates of co-financing in the convergence countries, as there is evidence that the difficulties of match funding may have led both to lower levels of RDR expenditure and to a distorted composition of RDR spending in the poorer countries and regions.* The Commission's proposals to allow significantly higher rates of EU co-financing in the convergence countries during 2007-13 are welcomed.

*We also point out that consistency with cohesion objectives would be improved through allocation of the RDR budget to Member States according to criteria of relative needs for rural development and environmental management, as proposed by the Commission<sup>1</sup> in 2002.* A recent paper by Mantino (2003) has illustrated a variety of ways in which this might be achieved at a regional level, using weighted criteria suggested by the Commission in the first draft of the MTR proposal (agricultural area, agricultural employment, and GDP/head) and already used for SAPARD allocations in the then Candidate Countries, as well as

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<sup>1</sup> EU Commission (2002) Mid-Term Review of the CAP, Brussels, COM (2002) 394 Final, page 23.

various environmental criteria (Natura 2000 sites, protected areas, organically farmed area).

Turning to Pillar 1, it is likely that there will be further revisions of the market price support arrangements as a result of the currently ongoing World Trade Organisation (WTO) negotiations. The 31 July 2004 WTO agreement confirms the main areas of the Doha Round of negotiations as reductions in export subsidies, border protection and trade-distorting domestic support to agriculture. Once actual modalities (formulas) and numerical values have been agreed in future talks, the Round should lead to further lowering of EU market prices, especially in products (e.g. sugar, beef) which have retained high border protection. *The more that WTO negotiations result in reductions in Pillar 1 market price support, through reductions in border protection and a convergence of EU prices with world prices, the greater the resulting consistency of the CAP with cohesion objectives.* As our scientific results have shown conclusively, the market price support element dominates the CAP and benefits overwhelmingly the richer, core regions at the expense of the poorer, declining and more peripheral parts of the EU. The gradual reduction of this element of CAP support is fundamental to any reorientation of the CAP towards cohesion objectives.

*In relation to direct Single Farm Payments, it is suggested that the Commission explore models through which these might be modulated more progressively in richer regions of the EU, for example through relating rates of modulation to farm business size.* Voluntary modulation could previously be applied in this way (as was done briefly in France) with a positive territorial impact, and this would be worthy of further investigation.

The ESDP challenges us to move towards a holistic and integrated approach to both the understanding and the implementation of sustainable development. The need for such an approach appears to be greatest in the poorest regions of the Community, eligible for Objective 1, where a "very high degree of sectoralisation" prevails (Robert *et al.*, 2001), but is also required elsewhere. Local development strategies, as proposed by the Commission in Axes 3 and 4 of RDR 2007-13, offer a means of integrating the approach to policy delivery and combining various instruments and funding streams for maximum effectiveness. Such strategies should seek horizontally integrated solutions combining actions in different sectors (economic, social, environmental). It is also imperative, however, that they should achieve vertical integration between local, regional, national and international funding and actors

Those operating at EU, national or regional level must play an important role in setting a coherent framework within which local development initiatives can best add value to top down approaches. In particular,

they should secure co-ordination at the highest levels where mainstream policies and strategies are formulated, so that top-down policies can effectively be integrated at local level by local development agencies and so that vertical integration can be achieved between local, regional and national policies. In addition, there must be a suitable mechanism for effective co-ordination of local development programmes, to avoid duplication or conflict. It will also be helpful to encourage a horizontal learning process between regions and between local actors in different territories.

The issue of appropriate institutional structures for multi-level governance is therefore of considerable importance, and towards this end we offer more detailed recommendations in Part II, Chapter 9. These suggestions regarding institutional issues command general agreement in the literature, and yet little progress has been made in promoting change. *Our final recommendation, then, is that both the Commission and Member States start reviews of their institutional arrangements for rural development and agriculture, encompassing broad consultation and debate, and leading to firm proposals.*

## **1.2 “Scientific” Summary**

Our work began with description, from a territorial point of view, of the agricultural sector and rural areas of the EU27. Analyses of ten indicators in our Third Interim Report (TIR) highlighted considerable differences in farm structures, land use and production methods across the EU-15, and even more so across the EU27. For example, the share of agriculture in total employment is still generally four times higher in the New Member States than in the EU-15. We also described and analysed the CAP and RDP, first in general and then in relation to their territorial components and enlargement aspects in particular. For this project, the scope of the CAP/RDP is taken to be the interventions in farming and farming-related activities undertaken by the Commission’s DG Agriculture. These can be via expenditures from the European Agricultural Guidance and Guarantee Fund (EAGGF), through market price support, and/or via relevant EU Regulations and Directives.

We proceeded with a statistical analysis of indicators and data at NUTS3 level over the period 1990 to 2000, augmented by findings from an EU-wide review of literature. The absence of a realistic counterfactual or “without CAP” scenario means that analysis focuses on how support is/has been distributed and implemented between areas of Europe (Chapter 4) and the ways in which changes in the CAP have impacted on regional economies (Chapter 5 and 6). A set of hypotheses on the territorial impact of the CAP and RDP was grouped into categories based on our classification of CAP and RDP measures, on the grounds that each type of support (market price support, direct income payments,

agri-environmental payments etc.) has played a distinct role within the CAP reform process and may have given rise to territorially distinct effects.

These territorial impacts and the incidence of CAP and RDP measures are assessed against the “high-level” objectives of the Third Cohesion Report, namely balanced competitiveness, social and economic cohesion, and sustainability, at macro-, meso- and micro- levels. It should be noted that this study does not seek to assess the success or otherwise of the CAP or RDP against CAP’s own objectives.

A key point to be borne in mind when considering the results is that the CAP is but one of many factors influencing farm-level decisions and agricultural and rural development. For this reason, we supplemented our statistical analysis with modelling and with a case study approach in order to explore, in more depth, the processes by which the CAP and RDP have led to territorially differentiated effects. In addition to validating and deepening the ex-post analysis carried out earlier, this second part of the project also helped us to explore the possible implications of proposed future changes in the CAP and how these might differ across space.

All Transnational Project Groups (TPGs) in the ESPON programme have found common elements across the various projects to be helpful, contributing to coherence, clarity and efficiency of effort. These elements are known as the ‘common platform’, as explained in Section 1.2.2 of Part II. The most helpful features of this have been a sharing of data (reflected in the ESPON database) and a coherence of methodology, summarised in the Matera Guidance Paper.

We have contributed fully to the development and implementation of this common platform, providing core variables for the ESPON database, maps for the ESPON atlas, submitting a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of the sector, and commenting, as requested, on proposed guidelines for other elements in the platform. Most importantly, we have embraced the common platform in preparing this report, as explained in Section 3.1 of Part II.

As explained in Section 4 below, the availability of detailed territorial data on agriculture across Europe is surprisingly poor, and therefore the process of compiling the dataset took considerable time and effort. Importantly, it required drawing on national and OECD sources and the use of apportionment methods (described in Section 3.3.2 of Part II). Many of the data sources used by the project have incompatible geographies. For instance, both the FADN and the EUROFARM databases use hybrids of NUTS1/2/3 (in the case of EUROFARM, these are known as “Districts”). Moreover, the EUROFARM dataset relates only

to the 'old' Member States, not the accession or neighbouring countries such as Poland and Switzerland, and, even in relation to the EU-15, is incomplete. It took considerable time to ensure that data was allocated in an appropriate way to constituent NUTS3 regions before it could be used for both mapping and statistical analysis. This work has significantly improved the basis for analysing the territorial impacts of the CAP and RDP than would hitherto have been possible from EU datasets.

Four territorial typologies were used by the project team:

- a rural area typology (developed by OECD)
- a less-favoured areas typology, i.e. LFAs vs. non-LFAs
- an urban-rural typology (developed by ESPON Project 1.1.2)
- a territorial typology based on cluster analysis of NUTS3 regions of both EU-15 and NMSs (developed by ESPON TPG 2.1.3)

These are described in more detail in Part II, Chapter 3.

A final general recommendation applies to the New Member States and their future development.

### **1.3 Networking undertaken with other ESPON Projects**

The project team has met regularly throughout the project (see Section 1.3 of Part II), and in addition the project co-ordinators were represented at all the Lead Partners meetings in Brussels and at all ESPON seminars. The team has also benefited from contact with TPG 1.1.2 on rural-urban relations (with whom we share a team member), with TPG 1.3.2 on natural heritage, and TPG 2.2.2 on the New Member States, and from general interactions with all the TPGs.

In particular, we have made use in our analysis of the latest six-fold urban-rural typology developed by TPG 1.1.2, based on land use, population density and functional urban area ranking. In this typology, each NUTS3 area is classified in two dimensions - variations in the physical environment and degree of urban influence or integration. The first dimension is defined according to the share of artificial, agricultural and natural areas of land use. The second dimension depends upon the Functional Urban Area (FUA) ranking of the main urban centre in the NUTS3 area, along with the population density. The six categories are explained in more detail in the methodology chapter in Part II. A notable feature is that the most urban NUTS3 areas are often also the most agricultural areas. Thus, agriculture is not a sign of peripherality as such: on the contrary, there is a strong connection between agriculture and urbanism in the core 'pentagon' of the EU27, and most CAP subsidies favour this urban core.

We have supplied data and discussed our approaches with TPG 1.3.2 and noted their interim conclusions. They argue that EU environmental



measures tend to establish standards outside the CAP framework, which farmers are required to meet, while in contrast, in this area, CAP operates largely as a facilitator of farmers' adjustment to environmental demands. Colleagues in TPG 2.2.2 have been most helpful in relation to farm household behaviour in the New Member States. We have also found it useful to consider the typology of demographic change developed by TPG 1.1.4 in our analysis.

## **1.4 Further Research Issues and Data Gaps**

### **1.4.1 Further Research Issues**

Suggestions to continue and update the work of this TPG as the form of implementation of the latest CAP reforms becomes clear are made in the next section. This will provide good value-for-money.

Research priorities beyond this might include: further country case studies of household adjustment strategies and trends in Mediterranean countries and NMSs; the territorial implications of changes in the food supply chain; local labour market problems and particularly the growing reliance of the agricultural industry on casual labour, often provided by immigrants; and finally a Futures Study specifically attempting a foresight analysis of the rural areas of the EU27. These suggestions are elaborated in Chapter 10 of Part II.

### **1.4.2 Data Gaps**

The availability of detailed territorial data on agriculture across Europe is surprisingly poor, given the huge extent of agricultural data collection and the bureaucratic burden on farmers. Very little data relating to agriculture are available at NUTS3 level from Eurostat, DG Regio or DG Agriculture, and, where they do exist, up to 91% of data are missing. DG Agriculture reported that they have no information on CAP expenditure below national level other than Farm Accountancy Data Network sample data, which shows support received by farms rather than expenditure.

We have therefore encountered persistent difficulties in finding territorially specific information on CAP performance in general, and especially on the separation of different CAP instruments, despite the huge routine surveillance of farmers by the Commission and Member States. It is especially surprising that DG Agriculture apparently has no systematic information on the regional pattern of CAP expenditure. The only indicator from the REGIO dataset widely available at NUTS3 level relating to agriculture is employment in agriculture, forestry and fishing (derived from Regional Accounts), and missing data is a problem for this and many other variables. Similarly the FADN dataset only provides data at NUTS2 or NUTS1 level, and sometimes in non-standard areas.

We have made the best of the available data, using reliable national and OECD data to supplement EU sources and to derive robust NUTS3 estimates from sample and/or higher-level values. Nevertheless, data should be provided to the Commission and published at NUTS3 or even NUTS5 level.

*Information on CAP expenditure and implementation at regional level is poorly developed, and support to overcome this information gap is limited. As the territorial dimension becomes integrated into rural policy, it will be very important to support policy-making in future through improving the database so as to enable Europe-wide territorial analysis. This will require administration of the CAP instruments to take into account the regional and territorial dimension.*

At the same time, the lack of useful regional information also reveals a lack of understanding of, or commitment to, the territorial relevance of the CAP amongst officials. Instead, it appears that most tend to think predominantly or only of linkages as upstream and downstream (i.e. within the farm-supply and food chains), rather than as existing in space. A cultural change amongst officials (reinforced by revised policy objectives and criteria) is needed if they are to address the territorial dimension of agricultural and rural development policy in future.

## **1.5 Self-Evaluation**

The successful implementation of this project has required considerable effort and imagination to overcome the data deficiencies reviewed above, but our work has led now to the assembly of a much stronger database to enable analysis of the spatial development aspects of the CAP and rural development policies. In the earlier parts of this project, we were also hampered by an incorrect understanding of the role of TPG 3.1 and its sequencing: we had expected TPG 3.1 to lead the work of the other TPGs through the development of the common platform (e.g. accessing data, creating a common database more actively, and developing core concepts) rather than following and synthesising the work of the other TPGs after the submission of each report.

In the programme as a whole, we have been surprised at the reliance on empiricism, and especially with the preference for visible patterns on maps rather than multivariate statistical analysis. Even if map presentation is the preference of policy customers, this should still be underpinned by more sophisticated statistical analysis. The empirical emphasis also derives in large part from the inadequate development of the ESDP concepts, and is understandable as part of a political process. On a more positive note, we have found the project leader seminars to be very valuable in the development of a common understanding and networking between TPGs, the Coordination Unit and the Commission.

Within the short time frame of this project, we have been unable to work with estimates of the impacts of the MTR CAP reforms as actually agreed in June 2003 and as implemented by Member States. Indeed, many MS are still deciding how to implement the MTR. Instead, we have made use of the CAPRI model estimates of the impacts of the Commission's MTR proposals, as explained in Section 6.4 of Part II. However, further outputs from the CAPRI team have recently become available, modelling the impacts of MS-anticipated implementation of the MTR reforms, and the CAPRI team will continue to revise their modelling as implementation proceeds. The CAPRI team are also currently extending their model to cover the NMSs.

There would be considerable value in the ESPON Monitoring Committee providing a small amount of further funding to TPG 2.1.3 in partnership with the University of Bonn to update (and extend to the NMSs) our analysis of the impacts of the MTR reforms at NUTS3 level, as Member States agree how precisely they will implement these reforms (e.g. on what basis Single Farm Payments will be made) and as further outputs from the CAPRI model become available. Variation in the basis of SFPs may lead to much greater territorial differentiation in the impact of the MTR reforms on environment, farm incomes and practices.

Similarly, it will soon be possible to use the latest CORINE (Coordination of Information on the Environment) data to incorporate the analysis of changes in land cover at NUTS3 level. This lack of data on changes in land cover has been a significant handicap to our work.

ESPON Project 2.1.3

The Territorial Impact of CAP and Rural Development Policy

Final Report, August 2004

**Part II: Results of the Project**

# 1 Introduction

## 1.1 Background and Aims of Project

### 1.1.1 Background

The EU's Second Report on Economic and Social Cohesion (January 2001) called for cohesion policy to promote a more balanced and more sustainable development of the European territory, in line with the European Spatial Development Perspective (ESDP), and this has been reaffirmed in the Third Cohesion Report (2004). As part of this, the Second Cohesion Report identified the need for further work on the territorial impacts of sectoral and structural policies, of which one of the most important (in budgetary, economic, environmental, social, political and cultural terms) is agricultural and rural development policy. ESPON Project 2.1.3 sets out to help fulfil this research requirement, through an analysis of the territorial impacts of the Common Agricultural Policy (CAP) and rural development policy (RDP).

The ESPON Programme<sup>2</sup> of research studies on spatial development and planning was launched on 3 June 2002, following the European Spatial Development Perspective (ESDP) which was adopted by the Ministers responsible for Spatial Planning of the EU in May 1999 in Potsdam, Germany. The Programme is implemented in the framework of the Community Initiative INTERREG III, and falls under the overall control of Luxembourg.

The ESPON programme aims at a better balance and polycentric development of the European territory seen from the national, regional and local points of view. Its stated objectives are to provide:

- a diagnosis of the principal territorial trends at EU scale as well as the difficulties and potentialities within the European territory as a whole;
- a cartographic picture of the major territorial disparities and of their respective intensity;
- a number of territorial indicators and typologies assisting a setting of European priorities for a balanced and polycentric enlarged European territory;
- some integrated tools and appropriate instruments (databases, indicators, methodologies for territorial impact analysis and systematic spatial analyses) to improve the spatial co-ordination of sector policies.

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<sup>2</sup> See <[www.espon.lu](http://www.espon.lu)> for details

### **1.1.2 Aims of this Study**

ESPON Project 2.1.3 commenced in August 2002 with the overall aim of deepening the understanding of territorial impacts of the EU's Common Agricultural Policy and Rural Development Policy (CAP/RDP) through the provision of a standardised database and an analysis of territorial trends covering the EU-15 and neighbouring and accession states. Within this overall aim, the following specific objectives were agreed:

- a) To develop a method for the analysis of the territorial impact of the CAP and Rural Development Policy.
- b) To establish a set of indicators, typologies and concepts along with a database and the map-making facilities necessary to implement the territorial impact assessment (TIA) method.
- c) To provide a structured presentation of the CAP identifying the relevant parameters for an assessment of its potentially differential impact across the EU.
- d) To apply the TIA method to show the impact of the CAP on spatial development across the EU and accession countries at the NUTS3 or equivalent scale.
- e) To investigate the interplay between the CAP and national agriculture/land use-related policies and best examples of implementation.
- f) To recommend further policy developments for the CAP in support of territorial cohesion and a polycentric and better balanced EU territory.

This document is the Final Report (FR) for the project. Building on three Interim Reports submitted by the project team in October 2002 (FIR), March 2003 (SIR), and August 2003 (TIR), it presents the overall findings of this study.

## **1.2 General Approach**

### **1.2.1 Broad Outline of the Research**

Our work began with description, from a territorial point of view, of the agricultural sector and rural areas of the EU27. Analyses of ten indicators in our Third Interim Report (TIR) highlighted considerable differences in farm structures, land use and production methods across the EU-15, and even more so across the EU27. For example, the share of agriculture in total employment is still generally four times higher in the New Member States (NMS) than in the EU-15. We also described and analysed the CAP and RDP, first in general and then in relation to their territorial components and enlargement aspects in particular. For this project, the scope of the CAP/RDP is taken to be the interventions in farming and farming-related activities undertaken by the Commission's DG Agriculture. These can be via expenditures from the

European Agricultural Guidance and Guarantee Fund (EAGGF), through market price support, and/or via relevant EU Regulations and Directives.

We proceeded with a statistical analysis of indicators and data at NUTS3 level over the period 1990 to 2000, augmented by findings from an EU-wide review of literature. The absence of a realistic counterfactual or “without CAP” scenario means that analysis focuses on how support is/has been distributed and implemented between areas of Europe and the way in which changes in the CAP have impacted on regional economies in different ways. A set of hypotheses on the territorial impact of the CAP and RDP was grouped into categories based on our classification of CAP and RDP measures. Such a grouping was made on the grounds that each type of support (market price support, direct income payments, agri-environmental payments etc.) has played a distinct role within the CAP reform process and may have given rise to territorially distinct effects.

These territorial impacts and the incidence of CAP and RDP measures are assessed against the “high-level” objectives of the Third Cohesion Report, namely balanced competitiveness, social and economic cohesion, and sustainability. It should be noted that this study does not seek to assess the success or otherwise of the CAP or RDP against CAP’s own objectives.

A key point to be borne in mind when considering the results is that the CAP is but one of many factors influencing farm-level decisions and agricultural and rural development. For this reason we supplemented our statistical analysis with a case study approach to explore, in more depth, the processes by which the CAP and RDP have led to territorially differentiated effects. In addition to validating and deepening the ex-post analysis carried out in year 1, this part of the project also helped us to explore the possible implications of proposed future changes in the CAP and how these might differ across space.

### **1.2.2 The Common Platform**

So as to ensure consistency and coherence across the whole ESPON programme, a set of common elements has been developed by the ESPON Co-ordination Unit and adopted by all TPGs. These elements comprise the ‘Common Platform’ for the programme. They include:

- the development of an ESPON database of core indicators,
- agreed typologies of regions,
- a collection of ESPON maps,
- operational definitions and measurements of policy goals and concepts,

- general agreement as to methods of assessment and evaluation of results, and
- conclusions for policy.

The Crete, Matera and Lillehammer Guidance Papers provided an overview of each element, and these are reflected in this Final Report.

We have contributed fully to the development and implementation of the common platform, providing core variables for the ESPON database, submitting a SWOT analysis of the sector, and commenting, as requested, on proposed guidelines for other elements in the platform. Most importantly, we have embraced the common platform in preparing this report.

### **1.3 Project Meetings and Networking with Other Projects**

The project team have met regularly throughout the project, in Luxembourg, November 2002, in Maynooth, Ireland, February 2003, in Crete in May 2003, in Dortmund in July 2003, in Matera, Italy in November 2003, in Lillehammer, Norway in May 2004, and in Vienna in June 2004. In addition, the project co-ordinators were represented at all the Lead Partners meetings in Brussels and all ESPON seminars. The team has also benefited from contact with TPG 1.1.2 on rural urban relations (with whom we share a team member), with TPG 1.3.2 on natural heritage, and TPG 2.2.2 on the New Member States, and general interactions with all the TPGs.

In particular, we have made use in our analysis of the latest six-fold urban-rural typology developed by TPG 1.1.2, based on land use, population density and functional urban area ranking. In this typology, each NUTS3 area is classified in two dimensions - variations in the physical environment and degree of urban influence or integration. The first dimension is defined according to the share of artificial, agricultural and natural areas of land use. The second dimension depends upon the FUA ranking of the main urban centre in the NUTS3 area, along with the population density. The six categories are explained in more detail in the methodology chapter. A notable feature is that the most urban NUTS3 areas are often also the most agricultural areas: that is, agriculture is not a sign of peripherality as such: on the contrary there is a strong connection between agriculture and urbanism in the core 'pentagon' of the EU27.

We have supplied data and discussed our approaches with TPG 1.3.2 and noted their interim conclusions. They argue that EU environmental measures - partly because these are comprehensive rather than agriculture-focused - tend to establish standards outside the CAP



framework, which farmers are required to meet, while in contrast, in this area, CAP operates largely as a facilitator of farmers' adjustment to environmental demands. Colleagues in TPG 2.2.2 have been most helpful in relation to farm household behaviour in the New Member States. We have also found it useful to consider the typology of demographic change developed by TPG 1.1.4 in our analysis.

#### **1.4 Structure of the Report (Part II)**

The structure of the remainder of this Final Report is as follows. Chapter 2 summarises territorial aspects of the agricultural sector in the enlarged EU and describes the CAP, as well as relevant features of structural and cohesion policy and of the ESDP. This provides essential background about the sector and relevant policies. Chapter 3 then sets out our methodology and how this has operationalised the common platform. This chapter also includes an explanation of the data assembled and used in this study.

Chapters 4, 5, 6, 7 and 8 then present our analysis and findings. Chapter 4 presents the findings from the application of the first stage of the TIA method, examining the territorial incidence of CAP and RDP measures and relating these through statistical analysis, hypothesis testing and literature review to the high-level ESDP objectives of social and economic cohesion, sustainability, and polycentricity. Chapters 5 and 6 go further and investigate through further statistical analysis and detailed case studies the territorial impacts of the CAP and RDP to date and of proposed reforms to the CAP and RDP in the context of enlargement. Chapter 7 considers these results in relation to the core concepts of the ESDP, namely balanced competitiveness, territorial cohesion, sustainability, peripherality and accessibility. Chapter 8 seeks to derive some lessons concerning good practice in rural development which may assist both in the spatial co-ordination and integration of EU policies and in promoting balanced competitiveness, territorial cohesion and sustainable development of rural areas in the face of global restructuring and social change.

Based on these findings, Chapter 9 presents the scientific conclusions of this research and also offers some policy recommendations for improving agricultural and rural development policy in support of ESDP objectives. The final chapter, Chapter 10, indicates a number of pressing further data requirements and outlines some avenues for further research. A number of annexes are also appended.

## 2 Background: Policy and Concepts

After a short introduction to the economic, environmental and other aspects of European agriculture, this chapter outlines the main elements of the EU's Common Agricultural Policy (CAP) and Rural Development Policy (RDP), including the pre-accession SAPARD measures in the candidate countries. It then summarises the EU's structural policies, including cohesion policy, as these have influenced the agricultural and rural areas of the Union. Finally, it reviews the European Spatial Development Perspective from an agricultural and rural point of view, with attention to how the concepts of the Perspectives may be interpreted in this light.

### 2.1 Characteristics and Trends in European Agriculture

European agriculture occupies a central role in the economy, society and environment of the continent, but is extremely diversified, geographically and structurally, in all these aspects. Moreover, the sector<sup>3</sup> has experienced many significant technological developments, especially over the second half of the twentieth century, and has also been subject to an high degree of policy intervention, under national policies, under the Common Agricultural Policy within a gradually expanding European Community and Union, and under more or less direct state control in the ex-Comecon countries of Central and Eastern Europe. These characteristics make an "agricultural geography" of Europe highly complex, and this section can only mention some of the main dimensions of the sector, as background to the policies affecting it.

FAO-recorded agricultural land within the European countries covered by the ESPON project<sup>4</sup> occupies about 400 million hectares, i.e. about a quarter of the total land area, the rest being occupied by forest, rock and glaciers, urban construction, etc. Of this farmland, about half is arable (i.e. cropped), and the rest is either permanent pasture or under permanent crops (fruit orchards, vineyards, olive groves, etc.). As explained elsewhere (see Section 3.4), the definition of "rural" and "agricultural" population (and even land coverage) is not simple, but in Europe as a whole, FAO records about a quarter of the total population as "rural", and about 8 per cent as "agricultural". The economic significance of the European agricultural industry in terms of GDP share

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<sup>3</sup> In this chapter, the term 'sector' is used when all or several aspects of agriculture - e.g. economic, social, environmental - are referred to. The term 'industry' is reserved for economic aspects.

<sup>4</sup> Substantial agricultural resources and activities exist within European countries excluded from the ESPON project, i.e. Belarus, the Russian Federation, the former Republic of Yugoslavia, Ukraine, and a number of smaller countries, most of minor agricultural importance.

is smaller than this, due to lower labour productivity in farming, and a degree of under-recording<sup>5</sup>, but approximates under 5 per cent.

Nevertheless, agriculture (along with imported products) forms the basis of the European food chain, which ranges from the supply of farming inputs (animal feed, agri-chemicals, machinery, hired labour) to the processing and distribution (including exporting) of food, drink and other farm-based products<sup>6</sup>. Food occupies a still-significant share of consumer expenditure in even highly developed European countries, and reaches 50 per cent or more amongst poorer households in more backward regions and countries. Despite scale economies which have led to the geographical concentration of food-chain activities<sup>7</sup>, the widespread nature of farming and of the consuming population means that this economic activity is important in all but the most urbanised locations of Europe.

Socially and culturally, agriculture occupies a unique role<sup>8</sup> as the main traditional “way of life”, from which many community habits, structures and even language are derived. In most European countries, the majority of families have a member engaged currently or recently in farming, and the location of the leisure activities of millions are influenced by the availability or familiarity of agricultural land and buildings. These preferences are receiving a new interpretation in the light of growing environmental interest and concerns (see below), but underlie the popularity of rural tourism.

Environmentally, European agriculture is a land management activity carried out at varying latitudes and altitudes, and in both densely populated and more remote areas. It thus influences, in a huge variety of ways, the quality of natural resources such as land, water and air, the degree of biodiversity, and landscape characteristics. The European Environment Agency (2001) has written that “*Agriculture remains a major source of pressure on the environment ... becoming even more intensive and specialized*”. Areas of general concern include:

- emissions of pollutants, particularly greenhouse gases, and fertiliser run-off into water systems
- lower population levels of both rare and once-common wildlife species, particularly birds as indicator species
- loss of ‘traditional’ landscapes due either to simplification (e.g. removal of field boundaries, more monoculture) or to abandonment (desertification) or degradation (unused terracing, farm buildings, etc.).

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<sup>5</sup> It should be noted that much service employment and income is also under-recorded, being in the ‘black’ or ‘grey’ economies.

<sup>6</sup> For example, textiles, leather, industrial starch.

<sup>7</sup> And farming itself, to some extent.

<sup>8</sup> In some regions, this role is occupied by fishing or hunting.

However, the environmental role of European agriculture is positive as well as negative, with cropping systems (particularly traditional ones) maintaining specialised wildlife habitats, and in providing a 'background' and basis for a wide variety of residential and leisure activities. Moreover, these roles may be interpreted at various geographical levels, e.g. 'macro' (part of the 'European model of agriculture'), 'meso' (part of national/regional characters) and 'micro' (local environments). Agri-environmental policy under the CAP, and EU environmental policies generally (e.g. the Birds and Water Framework Directives), have attempted to regulate environmental threats posed by farming practices, and to encourage more environmentally friendly practices, such as organic farming, and low-intensity farming in areas of high nature value.

Structurally, European agriculture has become steadily more capital-intensive (and so less labour-intensive on a slowly shrinking land base), more large-scale (fewer, larger commercial farms, though with a growing number of 'micro' holdings), less self-sufficient (more purchases of manufactured inputs), and more regulated (partly for the purposes of agricultural subsidy administration, but also for reasons of food safety, animal welfare, etc.). The growth of the Single European Market, and of global markets, along with improved communication systems and altered consumer food habits, have militated against local food systems, though farmer markets are currently having a revival.

Many of these developments were observable, though proceeding at different speeds and in different ways, in the ex-socialist countries before the start of transition in 1989. Since then, in the light of legal and economic uncertainties, agricultural adjustment in these countries has been patchy, but macroeconomic stabilisation and EU accession (including CAP adoption) seems likely to bring about similar trends in the accession countries.

## **2.2 The Common Agricultural Policy (CAP) and Rural Development Policy (RDP)**

### **2.2.1 CAP/RDP Scope and Objectives**

For the purposes of this study, the scope of the EU's CAP/RDP is taken to be the interventions in farming and farming-related activities (e.g., farm forestry and tourism, and food regulation) undertaken by the Commission's DG Agri, for the purposes of pursuing Community objectives as set out in the various EU Treaties. These interventions can be categorised into three types:

- a) expenditures from the European Agricultural Guidance and Guarantee Fund, EAGGF

- b) market price support via non-expenditure methods such as tariffs and import quotas, and
- c) relevant EU Regulations and Directives.

Given this definition, the following relationships between included and excluded policy areas are worth mention:

- *Other structural policies:* Regional and Social Funds are now partly “integrated” with EAGGF funding in Objective area “Programmes”.
- *LEADER:* farming and farmers were involved to a greater or lesser extent in the previous LEADER and LEADER II Community Instruments (CIs) of the previous two budget periods (1988-93 and 1994-99); the current (2000-06) LEADER+ scheme is funded entirely (except for national contributions) from within the EAGGF.
- *EU environmental policy:* environmental conservation and promotion (and sustainable development) are now over-arching EU policy objectives, and, in principle, all CAP initiatives must now carry environmental statements, and are subject to environmental criteria in their evaluation.<sup>9</sup> Agri-environmental CAP instruments, introduced as “accompanying” measures in the MacSharry reforms and expanded subsequently, have explicit environmental effects as their objective. However, with more “cross-compliance” (so far limited in uptake by Member States), this distinction between the two may erode in the future.
- *EU competition policy:* the Single Market is enforced with a set of regulations to control state (national and regional) aids; some such aids (which are inherently territorial) have persisted for special reasons. In the food chain, including farmer marketing agencies (e.g. the UK milk boards), the regulation of mergers and monopolies can fall under EU as well as national auspices.
- *Food policy:* there is increasing EU interest and active policy involvement in this area, largely through the Consumer Affairs DG. Regulations extend from farm (e.g. livestock welfare) through distribution and processing (livestock transport, slaughterhouse hygiene) to food retailing (e.g. traceability, labelling), including (e.g.) the regulation of organic food supply.
- *National legislation:* each Member State has its own set of laws regarding, for example, farm business taxation, land tenure/transfers and territorial planning regulations.

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<sup>9</sup> However, a number of studies (e.g. Efstratoglou *et al.*, 1998; Elbe *et al.*, 2003) have shown that these regulations have so far had little effect in reality.

The original objectives of the CAP were laid down in Article 39 of the 1957 Treaty of Rome and in the conclusions of the 1958 conference at Stresa (Italy). The Article 39 objectives were (and are, since the Treaty remains in force, though subject to re-interpretation):

- increasing agricultural productivity
- ensuring a fair standard of living for farmers
- stabilising markets
- guaranteeing food security
- ensuring reasonable prices for consumers.

The Final Resolution at Stresa maintained that agriculture should be regarded as an integral part of the economy and as an essential factor in social life (Fennell, 1997, p.20).

The underlying philosophy of the Common Market as a whole was to exploit comparative economic advantages, which include spatial differences in farming productivity in terms of soil quality, climate, distance from markets, etc. These factors clearly varied greatly from location to location within the original six Member States, and do so even more greatly within the EUs of 15 and 25. In pursuing the Treaty of Rome objectives, three “principles” were and still are commonly cited:

*Market unity* (or common pricing) involves the abolition of internal barriers to trade, and the establishment of common standards for food safety, quality, labelling, etc. In the first three decades of the CAP, as national currencies fluctuated against each other, complex agri-monetary measures and “green” exchange rates were introduced. However, with the achievement in 1992 of the Single Market, and the creation of the Euro as a single currency for twelve Member States in January 2002, these problems have largely subsided.

*Community preference* reflects the establishment of the European Community as a single customs union, with a common external tariff applied to all third-country imports as an instrument of market protection. Despite CAP reforms agreed since 1992, many rates of market protection are still high, particularly for sugar, milk, beef. Nevertheless, trade preferences have been awarded to an increasing number of non-EU countries, some on historical grounds, some as part of pre-accession arrangements, and some for reasons of economic assistance and development (e.g. the Maghreb and the ACP-EC agreements).

*Common funding* (or financial solidarity) involves the use of income from the EU's "own resources" (mainly VAT- and GNP-based tax revenue, but also from import and other agricultural levies, some regarded as CAP 'negative expenditure'), and expenditures via the European Agricultural Fund.

None of these principles carry obvious territorial characteristics, and indeed they each imply an increased degree of common rather than differentiated treatment across the entire EU area, e.g. in terms of free flows of goods. As the territorial implications of the CAP (and other influences, such as technological change, and budget pressures) became clear, the original design of the CAP had to be adapted.

With the entry to the European Community of the United Kingdom along with Ireland and Denmark in 1973, a substantial area of "difficult" farmland, often with pre-existing policy measures in place, became subject to the CAP. Thus, in 1975, Directive 268 authorised the definition of certain agricultural regions as "mountainous" or "*less favoured*" areas (LFAs), entitled to special direct payments to ensure "the continuation of farming". This marked the important departure - especially in the context of the present study - from the common policy treatment of farming in different parts of the Community. More details are given in Section 2.2.3 below.

The principle of *producer co-responsibility* is that farmers should bear some of the burden imposed by financing costly forms of support. Co-responsibility levies on marketings have long applied in the sugar regime, and for some years were operated in the dairy and cereal regimes. In these measures, territorialism plays little part. Nowadays, it is more common to apply *cross-compliance* requirements, i.e. to be eligible for payments, farmers must observe a range of management obligations, usually of an environmental nature. These can be (and are, via the principle of subsidiarity and the national and regional preparation of arrangements for Commission approval) more territorially differentiated.

The 1987 Single European Act (Article 130R) mandated the consideration of environmental protection in all EU policies including the CAP/RDP. This led to the creation of a number of agri-environmental CAP measures (see below), and to a stronger (but still weak) element of environmental conditions in some other measures, e.g. stocking limits. These considerations led naturally to the specification of some new territorial aspects to the relevant CAP measures, mostly using the LFA boundaries.

In the Agenda 2000 reforms of the CAP, the 'European Model of Agriculture' was endorsed, with objectives including:

- more market orientation and greater competitiveness
- food safety and quality
- stabilised agricultural incomes
- integration of environmental concerns into agricultural policy
- developing the vitality of rural areas
- simplification of administration, and
- strengthened decentralisation.

The Agenda 2000 reforms were followed, as scheduled, by the 2002/03 Mid-Term Review (MTR) of the CAP (CEC, 2002, 394; COM, 2003, 23), in which the Commission argued that the objectives for EU agriculture should be:

- enhanced competitiveness
- more market orientation
- more sustainability
- a better balance of support, and
- strengthened rural development

to be achieved through:

- a single farm payment (SFP) independent from production,
- payments being linked to environmental, food safety, animal welfare, health and occupational safety standards,
- more money for rural development policy
- new measures promoting food quality, animal welfare and environmental standards,
- reduction in direct payments for bigger farmers, and
- further revisions to CAP market policy

### **2.2.2 CAP/RDP Measures and Expenditures**

Agenda 2000 defined two “pillars” of the CAP. Pillar 1 comprises:

- commodity market support regimes with intervention buying or private storage aids
- “lightweight” regimes with emergency buying and producer group support
- direct payments, often with quotas and/or reference yields and area ceilings to limit expenditure
- supply management tools such as quotas on milk supplies, maximum stocking densities and compulsory arable set-aside
- other elements such as environmental or animal welfare requirements, ‘outgoer’ (e.g. dairy) schemes and grubbing-up aid.

Pillar 2 covers structural and rural development measures such as:



- aids for farming in Less Favoured Areas and now in areas with environmental restrictions
- agri-environment schemes
- support for farm forestry
- aid for farm investment, modernisation, and diversification
- aids for marketing and processing
- early retirement aids, and aids for young farmers
- vocational training,
- aids for improved water management, land reparation and land improvement (Article 33 of Regulation 1257/1999)
- support for developing farm-related tourism and craft activities (Article 33)
- other farm-related rural development provisions (Article 33)

The 'common rules' Regulation 1259/1999 authorised 'modulation' to switch funding from Pillar 1 to certain elements of Pillar 2 (Article 4). However, modulation was initially implemented only by France – which later suspended the process – and by the United Kingdom. Since the reforms agreed in June 2003, modulation is to become mandatory for all countries, operating on the new Single Farm Payment (SFP) by means of a flat-rate cut rising from 3% to 5% in 2007. Governments may supplement this by additional national modulation.

Table 2.1 shows expenditures from the Guarantee Section of the EAGGF by Member State for 2001, classified by commodity and other sector. The main item, accounting for over 40 per cent of the total of €42 billion, relates to "arable crops", i.e. cereals, oilseeds and protein crops (peas and beans), and is mainly direct area-based payments (including those on set-aside), with a relatively small amount of market support expenditure on export refunds and storage. The next highest item relates to bovine meats, i.e. beef and veal (mainly direct payments), and smaller commodity-related expenditures to olive oil (mainly direct payments), milk products (market support), fruit and vegetables (market support), sugar (market support), sheep and goat meat (mainly direct payments), wine (market support) and tobacco (mainly direct payments). EAGGF Guarantee expenditure on rural development measures (previously accompanying measures) account for about 10% of the total.

**Table 2.1: CAP expenditures by Member State, 2001 (million Euro)**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Total*
Arable Crops	166	666	3739	483	1934	5181	120	1919	1	251	379	242	353	420	1603	17466
Sugar	281	86	237	8	62	357	4	143		50	28	21	10	23	187	1497
Olive Oil				587	1030	5		848				54				2524
Dried Fodder etc.		10	23	5	186	83		48		14		1			4	375
Textile Plants	9		2	543	212	42				4	1	3			9	826
Fruit, Vegetables	37	1	17	235	522	294	2	348		40	2	42		2	17	1558
Wine Products			41	16	470	222		378			14	54			1	1197
Tobacco	3		34	376	115	77		339			1	19			9	973
Other Crop Products	3	32	18	24	52	26		118		10		5	2	2	4	297
<i>Crop Products</i>	<i>499</i>	<i>794</i>	<i>4111</i>	<i>2276</i>	<i>4584</i>	<i>6287</i>	<i>126</i>	<i>4144</i>	<i>1</i>	<i>368</i>	<i>425</i>	<i>441</i>	<i>365</i>	<i>448</i>	<i>1824</i>	<i>26713</i>
Milk and Milk Products	181	128	186	-3	29	500	144	92		479	-27	-3	46	28	127	1907
Bovine Meat	169	83	744	61	734	1468	827	296	8	86	172	126	62	101	1116	6054
Sheep and Goat Meat	1	1	34	201	390	144	90	143		12	4	48	1	3	374	1447
Pig Meat, Eggs, Poultry	5	26	5	1	11	52	1	8		19	4	3		1	2	137
Fish					6	3	1					1			1	13
<i>Livestock Products</i>	<i>356</i>	<i>238</i>	<i>969</i>	<i>261</i>	<i>1171</i>	<i>2167</i>	<i>1063</i>	<i>539</i>	<i>8</i>	<i>597</i>	<i>153</i>	<i>175</i>	<i>109</i>	<i>134</i>	<i>1619</i>	<i>9559</i>
Non-Annex 1 Products	40	33	65	3	23	53	51	19		79	19	2	6	9	36	436
Food Programmes	8	2	17	15	63	65	2	49		2	1	28	7	9	12	282
Ultra-Periphery Progs.				24	90	39		1				30				184
Vet. & Phytosanitary	4	3	22	4	18	27	15	24		51	2	8	1	1	383	566

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Total*
Fraud Control & Prvtn.			10	3	11	-1	-1			1	2	-1			10	32
Reductions in Advances	-2		-27	-45	-311	-40		-143		1						-570
Promotion, Information	1		5		4	5	1	1		4	1				3	49
Other Measures	1	8				39	17	57					1	29	318	470
<i>Other Measures</i>	<i>51</i>	<i>46</i>	<i>91</i>	<i>4</i>	<i>-103</i>	<i>184</i>	<i>84</i>	<i>7</i>	<i>1</i>	<i>136</i>	<i>24</i>	<i>69</i>	<i>15</i>	<i>48</i>	<i>753</i>	<i>1448</i>
<i>Rural Development</i>	<i>32</i>	<i>35</i>	<i>708</i>	<i>75</i>	<i>540</i>	<i>609</i>	<i>327</i>	<i>660</i>	<i>1</i> <i>0</i>	<i>55</i>	<i>453</i>	<i>197</i>	<i>327</i>	<i>151</i>	<i>184</i>	<i>4363</i>
<i>Total* FEOGA Guarantee</i>	<i>938</i>	<i>1114</i>	<i>5880</i>	<i>2616</i>	<i>6194</i>	<i>9248</i>	<i>1599</i>	<i>5349</i>	<i>3</i> <i>0</i>	<i>1155</i>	<i>1055</i>	<i>882</i>	<i>816</i>	<i>780</i>	<i>4381</i>	<i>42083</i>

\* Source: 31st Financial Report on the EAAGF Guarantee Section, 2001 Financial Year, Annexe 8, COM (2002).

\*\* Individual values may not add exactly to Totals, due to rounding and/or small amounts unallocated to countries.



For the purposes of this project, it is often convenient to distinguish CAP/RDP measures into six categories, on the basis that each has potentially different territorial impacts:

- *market regulation*: the 'traditional' CAP instruments of market support for most (but not all) farm commodities via import taxes, export subsidies and intervention purchasing, together with secondary measures such as marketing quotas. The major economic effect is not via subsidy expenditure, but via higher internal prices maintained by border measures; these are regularly estimated by the OECD as a component of Producer Support Estimates (PSEs)
- *direct income payments*: made directly (or nearly so, e.g. to co-operatives, etc.) to farmers linked to production, e.g. area and headage payments. Various constraints, such as set-aside for commercial arable farmers, and stocking densities for grazing livestock payments, are attached to these payments. Under Agenda 2000, these payments may be 'modulated', i.e. reduced for individual farmers in order to finance Pillar 2 activities, but this has not yet been widely undertaken.
- *LFA payments*: a dual-purpose instrument, addressing both environmental and socio-economic goals
- *agri-environmental schemes*: 'accompanying measures' introduced originally at the time of the 1992 CAP reforms, and currently paid under Regulation 1257/1999
- *rural development measures*<sup>10</sup>, including other 'accompanying measures' (early retirement and afforestation) as well as those for farm development and diversification, food processing and marketing, training, the broader "Article 33" measures for village renewal etc., and LEADER
- *other measures*, e.g. input subsidies and (farm-specific) taxes.

The LFA and the three accompanying measures mentioned above account for c. 50% of the funding of Rural Development Programmes in all EU countries. However, the situation in the member countries differs substantially; the Netherlands have the lowest share (13%) and Ireland more than 90%. All such measures are part-financed (in differing proportions from country to country, and region to region) by the EU, the rest being made up of national-government (and private) funds.

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<sup>10</sup> In current Commission parlance, the term "rural development" is used very widely, to include both agri-environmental and "true" development in rural areas, whether on-farm or off-farm (e.g. diversification). In the recent Mid-Term Review proposals, it has been used to encompass even food quality and animal welfare, which are likely to become of increasing importance. In the context of this study, however, "rural development" measures cover payments for processing and marketing; training and diversification; farm development; Article 33; and LEADER).

**Figure 2.1: EAGGF Budget Flows via Pillars 1 and 2, 2000-2006**

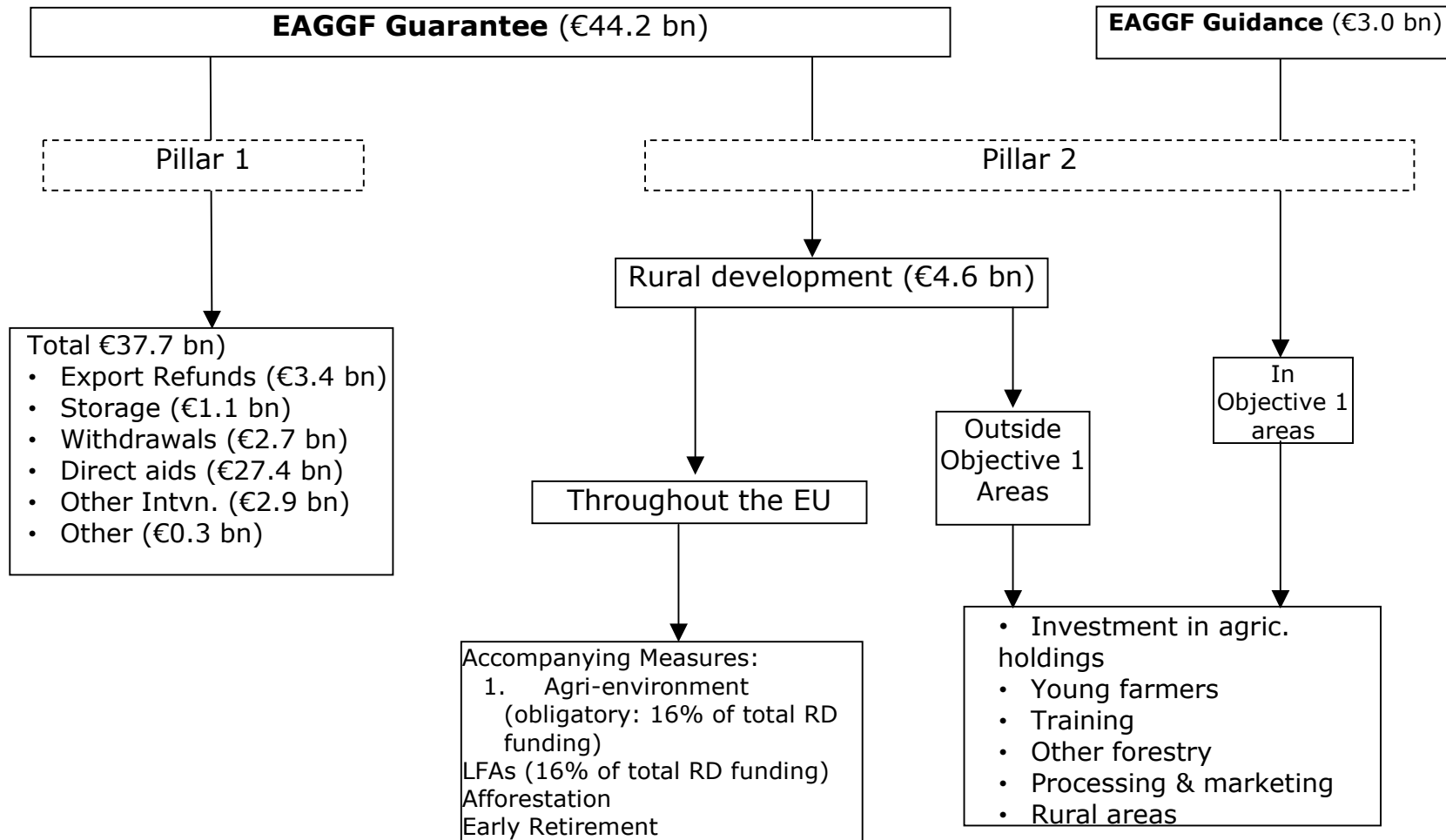


Figure 2.1 shows how funds currently flow from the two Sections of the EAGGF to the various measures of the CAP/RDP. It is to be noted that Pillar 2 is currently funded by both the Guarantee and Guidance Sections (which have very different budgetary and administrative arrangements, e.g. co-financing). Also, the large component of expenditure devoted to direct aids (€27.4bn) is being increasingly decoupled from specific commodities and their output levels, and is conditional on increasing environmental regulation.

A substantive reform to the CAP was agreed by the Council of Agricultural Ministers in June 2003. These reforms are examined in detail in Chapter 6 (see Section 6.1.1) but are briefly summarised here. Further cuts in support prices for crops and livestock will be accompanied by the replacement of the multitude of various direct payments by a single partially-decoupled direct payment (the Single Farm Payment, or SFP). Compulsory modulation of all SFPs will rise to 5% by 2007, and the funds saved will be spent under Pillar 2 rural development programmes. In order to reflect different national circumstances, Member States were given considerable discretion in how these reforms are implemented. For example, the SFPs can be related to historical levels of payment to each farm, or calculated as a flat-rate per hectare, or a hybrid of these two.

Table 2.2 shows the position proposed to the Commission by each EU-15 Member State at time of writing this Report (August 2004) as regards their implementation of the options permitted by the 2003 CAP reform decisions. The majority have decided to adopt the "historical" basis for SFPs, i.e. maintaining individual farmers' receipts during 2000-2002. Others have chosen a "static hybrid" model which combines a historical payment component with a "flat-rate" per-hectare component (usually on a regional basis), or a "dynamic hybrid" model which moves towards the flat-rate over several years. Moreover, most Member States (the exceptions are Ireland and the UK other than Scotland) have also chosen to maintain some degree of "coupling" support payments to products (crop areas or livestock numbers). Some MSs have also opted to use a "national envelope" to "ring-fence" coupled funds for particular livestock practices.

It will be seen that the main feature of these proposals (with which the Commission is expected to agree, in general) is to maintain the general geographical pattern of CAP support, especially at the meso and macro scales. At the micro scale, the adoption of SFPs means that some farms (e.g. horticultural enterprises) may hitherto receive no or low payments will receive significantly more. Also the implementation of a direct payment system for dairy cows, which is to be incorporated into the SFP system, will somewhat alter the overall geographical pattern of CAP payments, though not necessarily that of total CAP support, since the

new dairy payments are meant to compensate for lower market price support.

**Table 2.2: Summary of 2003 CAP Reform Decisions**

<b>Country (regions)</b>	<b>Start</b>	<b>SFP Basis</b>	<b>Coupling Rates, Notes</b>
Belgique-België	2005	historical	100% suckler cows, 100% calf slaughter, 100% seeds (partial)
Danmark	2005	static hybrid	75% special male cattle, 50% sheep
Deutschland Länder	2005	dynamic hybrid, to FR	25% hops, 60% tobacco (until 2009)
Ellada	2006	<i>historical</i>	<i>40% durum wheat, 50% sheep</i>
España	2006	historical	100% seeds, 100% for all products in outermost regions
France	2006	<i>historical</i>	<i>25% arable crops, 50% sheep, 100% suckler cows, 100% calf slaughter, 40% adult cattle slaughter. 100% for all products in overseas territories</i>
Ireland	2005	historical	no coupling
Italia	2005	historical	100% seeds, NEs for arable crops (7%), beef (8%) and sheep
Luxembourg	2005	static hybrid	no coupling
Nederland	2006	<i>historical</i>	<i>100% calf slaughtering, 40% adult cattle slaughter, 100% seed for linseed</i>
Österreich	2005	historical	100% suckler cows, 40% adult cattle slaughter, 100% calf slaughter, 25% hops
Portugal	2005	historical	100% suckler cows, 40% adult cattle slaughter, 100% calf slaughter, 50% sheep, 100% seeds, 100% for all products in outermost regions
Suomi/Finland (3 regions)	2006	<i>dynamic hybrid</i>	<i>75% special male cattle, 10% arable crops?, 100% seed?, 50% sheep? 10% NE for quality beef</i>
Sverige (5 regions)	2005	static hybrid	74.55% for special male cattle, 0.45% NE for beef
United Kingdom			
- England (3 regions)	2005	dynamic hybrid, to FR	no coupling
- Scotland	2005	historical	10% NE for quality beef
- Wales	2005	historical	no coupling
- N. Ireland	2005	static hybrid	no coupling

Notes:

1. Entries in *italics* indicate informal notification only to Commission by 5 August.
2. SFP = single farm payment; NE = national envelope; FR = flat-rate (area)

Source: *Agra Europe*, 2117 (6 August 2004), p. EP/7.



### **2.2.3 Territorial Components of CAP/RDP Measures and LFAs**

Any CAP measure may have differential effects over the Community space, depending on the presence and nature of agricultural activity. By definition, market support in the Single European Market, without intra-EU border controls and measures such as the previous "green" exchange rates, are largely non-territorial, except insofar as some of these instruments, which operate at EU borders and at intervention purchasing points, may favour EU producers near these locations due to transport costs.

Nevertheless, as indicated above, several CAP/RDP measures have strong territorial characteristics, in being applicable, at different rates, or at all, in various parts of the Community. In some cases (e.g. sugar quotas), the spatial element is restricted to Member State level, with complete freedom of action within national borders; in others, such as Less Favoured Areas (LFAs) or Objective 1 areas, there are more detailed geographical specifications.

National and regional ("ring-fenced") quotas for milk and sugar have obvious territorial characteristics, being based on historical levels of production in the various areas defined in the regulations. In some countries, the growth of a relatively free market in such quotas will have minimised the territorial "quota effect" when compared to the spatial pattern which would have emerged without quotas (but with price support); in others, the lack of such a market will have enhanced it by "freezing" production patterns down to farm level. Similar effects can be expected with eligibility "quotas" for farm grazing livestock numbers, and with some "maximum guarantee quantities" (tobacco, etc.).

The current arable regime includes regionally specified "reference" crop yields as the basis for rates of direct payments, and hence has a territorial character, though one that offsets regional agronomic differences that would otherwise have meant a "biased" application of the direct payment system. The impact of this feature will depend on the "coarseness" of the regions defined by Member States when this regime was introduced, and possibly the interpretation for the purposes of policy implementation of "good farming practice" criteria.

The first initiative to introduce an explicitly spatial / territorial dimension into the CAP was the Council Directive 75/268/EEC on Less Favoured Areas, which was introduced in 1975. As a complement to the range of sectoral support measures already in place, the LFAs Directive provides a framework for payment of annual compensatory allowances to farmers in less favoured areas. Specifically, Directive 75/268 states that:

"...the steady decline in agricultural incomes in these areas as compared to other regions of the Community, and the particularly poor working conditions prevalent in such areas are causing large-scale depopulation of farming and rural areas, which will eventually lead to the abandonment of land that was previously maintained.... The permanent natural handicaps existing in such areas, which are due chiefly to the poor quality of the soil, the degree of slope of the land and the short growing season and which can be overcome only by operations the cost of which would be exorbitant, lead to high production costs and prevent farming from achieving a level of income similar to that enjoyed by farms of comparable type in other regions... It may be essential, if the objectives assigned to farming in the less favoured areas are to be attained, that farmers permanently engaged in agriculture in such areas be paid annual compensatory allowances".

Regulation EEC No. 2328/91 provides for payment of Compensatory Allowances in designated less favoured areas characterised by one or more of the following attributes:

- (1) permanent handicaps (altitude, poor soils, climate, steep slopes),
- (2) undergoing depopulation or having very low densities of settlement, and
- (3) experiencing poor drainage, having inadequate infrastructures, or needing support for rural tourism, crafts and other supplementary activities.

As most of the payments under this Regulation were formerly calculated on the basis of livestock numbers they are usually referred to as 'headage payments'.

The objectives of the LFA Compensatory Allowances, as specified in Regulation 2328/91 are "to maintain a viable agricultural community and thus help develop the social fabric of rural areas by ensuring a fair standard of living for farmers and by off-setting the effects of natural handicaps in mountain and less-favoured areas". Following the reform of the Structural Funds in 1988 the LFA scheme was incorporated as part of a horizontal EU Objective 5a measure under the Structural Funds. In 1999 the total expenditure on Objective 5a throughout the EU was €1310.9m, which was 23.5% of the total EAGGF Guidance Section expenditure. For the period 2000-2006 there is provision to allocate €924m (= 3.8% of total EAGGF Guarantee to rural development policy) to LFAs and areas with environmental restrictions in Objective 1 regions. The corresponding allocation to non-Objective 1 regions is €4631.9m, equivalent to 18.9% of the total EAGGF Guarantee to rural development policy.

LFA classification affects direct payments and rural development measures. Similarly, the boundaries defined for the old Objective 1 and 5b areas, and new Objective 1 areas have territorial implications for the effects of EU Rural Development Policy, including the LEADER schemes.

#### **2.2.4 Pre-Accession and Enlargement Aspects of the CAP/RDP**

The accession of ten new Member States (eight Central and Eastern European Countries, NMSs, plus Malta and Cyprus) to the EU took place in May 2004, with Bulgaria and Romania possibly acceding in 2007. Prior to accession, these countries have been preparing their agricultural sectors and policies for EU entry and CAP adoption, e.g. by instituting CAP-like support systems, and seeking liberalised trade with the EU-15. Each started with its own national structure of agriculture and agricultural policy, in the NMSs often with significant differences between conditions in the early 1990s and those in the mid-2000s. The territorial aspects of agricultural and rural development policies in the accession states are therefore complex.

Given the expenditure and non-expenditure effects of the CAP, the main effect of EU accession and CAP adoption in the new Member States derives from Pillar 1, i.e. market policy and direct payments (which are being made on a simplified basis in most of the new countries). As regards Pillar 2, NMS applicants prepared for EU entry by setting up regional authorities for the development of rural development programmes, used to implement pre-accession funding via the Special Action for Pre-Accession measures for Agriculture and Rural Development (SAPARD) programme agreed at the European Council meeting in Berlin as part of the Agenda 2000 proposals. In addition, a Special Preparatory Programme (SPP) in the framework of PHARE has been established (in the years 1998 and 1999), which among other things financed capacity building, training and technical assistance for the preparation of a national Rural Development Plan in each applicant country. This plan served as a basis for measures under the SAPARD programme.

The SAPARD programme disposed of about €520m per year, and acted through horizontal measures towards the adaptation of agricultural structures and policy as well as support for rural development. In most applicant countries, the required national co-financing (25%) for both funds took up a large part of the current budgetary resources for these measures (about 14% of national agricultural budgets in all the NMSs; Dwyer *et al.* 2002, p.100). SAPARD is analysed in Section 5.8.

## **2.3 Structural and Cohesion Policy**

### **2.3.1 Policies and Funds**

The Structural Policies of the EU are aimed at reducing disparities between different regions and social groups, and at promoting sustainable development and general economic efficiency. They are financed from the Social Fund and the Guidance Section of the Agriculture Fund (both established since the origins of the European Community), and the Regional (Development) Fund (originated in 1975), together with the Cohesion Fund and the Financial Fund for Fisheries Guidance (FIFG) (established in 1993).

As described in the First Interim Report of ESPON TPG 2.2.1, and elsewhere, during the 1994-99 period the three main Structural Funds concentrated on a number of key 'objectives', namely:

- Objective 1 – structural adjustment and development of less developed regions
- Objective 2 – conversion of regions severely affected by industrial decline
- Objective 3 – combating long-term unemployment and facilitating the occupational integration of young people and persons excluded from the labour market
- Objective 4 – assistance for workers in employment to adapt to industrial change and new production systems through retraining
- Objective 5a – speeding up the adjustment of agricultural and fisheries structures
- Objective 5b – facilitating development of rural areas, and
- Objective 6 – promotion of development in regions with exceptionally low population density.

Of these seven, Objectives 1, 2, 5b and 6 were spatially restricted in their remit, while no explicit spatial restriction applied to Objectives 3, 4 and 5a (so-called 'horizontal' measures).

Objective 5a was explicitly targeted at the agricultural industry, and continued long-standing funding of capital investment on and off farms by means of grants and loans. Rural areas with economic problems fell either into Objective 1, where more integrated development programming was attempted, or, with lower rates of support, into Objective 5b. In addition, the LEADER II Community Initiative (CI) focussed on 'bottom-up' projects in rural areas. The Cohesion Fund was focussed on environmental and transport projects in countries with GDP per head under 90% of the EU average, i.e. Greece, Portugal and Spain.

For the period 2000-2006, the objectives were rationalised down to 3:

- Objective 1 – programmes in regions whose development is lagging behind, including regions whose per capita GDP falls

below 75% of the EU average, sparsely populated regions of Finland and Sweden and the most remote regions,

- Objective 2 – programmes in regions undergoing conversion including industrial or service sectors subject to restructuring, a decline in traditional activities in rural areas, problem urban areas, and difficulties in the fisheries sector,
- Objective 3 - modernising training systems and promoting employment outside the regions eligible for Objective 1.

The LEADER+ CI continues to promote rural development through the initiatives of local action groups.

The total appropriation for the Structural Funds and the Cohesion Fund for the period 2000-2006 stands at €213bn at 1999 prices, i.e. approximately €30bn per year, of which about €2.5bn is allocated to the Cohesion Fund. Almost 70% of the main component goes to Objective 1, and about 12% to each of the other two Objectives, with the remainder going to Community Initiatives such as LEADER (about €300m per year) and to FIFG outside Objective 1 areas.

### **2.3.2 Structural Funds in Rural Areas**

In the two previous programming periods, 1988-1993 and 1994-1999, structural funds were allocated in rural areas via Objectives 1, 5a and 5b, and 6, although some of the Structural Fund expenditure under the other Objectives (2, 3 and 4) had indirect effects on rural areas. LFA expenditures were in fact the major EAGGF Guidance Section commitments, and approximately €15bn were allocated to rural development over the 1988-1993 period. Between the 1989-1993 and 1994-1999 periods, Objective 5b areas were considerably expanded (approximately doubling in area and population, overall, taking into account the accession of three new Member States in 1995). On the accession of Sweden and Finland in 1995, Objective 6 was added for Nordic areas characterised by extremely low population densities (no more than 8 persons per square kilometre).

In Objective 1 areas, rural development measures were financed, within an integrated (i.e. territorial) approach, from the EAGGF Guidance Section, with the exception of the Less Favoured Area scheme for which the EAGGF Guarantee Section was used.

Table 2.3 shows commitment appropriations for the four CIs for the programming period 2000-2006, by Member State. It can be seen that the main rural CI, LEADER, accounts for about 20% of total CI appropriations. An additional but unknown share of INTERREG funding to cross-border, transnational and interregional cooperation purposes will also be applied in rural areas.

**Table 2.3: Indicative allocations of commitment appropriations among the Member States, 2000-2006 (in million euro – 1999 prices)**

	<i>LEADER</i>	<i>INTERRE G</i>	<i>EQUAL</i>	<i>URBAN</i>	<i>TOTAL</i>
<b>B</b>	15	104	70	20	<b>209</b>
<b>DK</b>	16	31	28	5	<b>80</b>
<b>DE</b>	247	737	484	140	<b>1608</b>
<b>GR</b>	172	568	98	24	<b>862</b>
<b>E</b>	467	900	485	106	<b>1958</b>
<b>F</b>	252	397	301	96	<b>1046</b>
<b>IRL</b>	45	84	32	5	<b>166</b>
<b>I</b>	267	426	371	108	<b>1172</b>
<b>L</b>	2	7	4	0	<b>13</b>
<b>NL</b>	78	349	196	28	<b>651</b>
<b>A</b>	71	183	96	8	<b>358</b>
<b>P</b>	152	394	107	18	<b>671</b>
<b>FIN</b>	52	129	68	5	<b>254</b>
<b>S</b>	38	154	81	5	<b>278</b>
<b>UK</b>	106	362	376	117	<b>961</b>
<b>Networks</b>	40	50	50	15	<b>155</b>
<b>EUR-15</b>	<b>2020</b>	<b>4875</b>	<b>2847</b>	<b>700</b>	<b>10442</b>

Source: European Commission Press Notice, Brussels, 13 October 1999, no. IP/99/744.

## **2.4 The European Spatial Development Perspective (ESDP)**

### **2.4.1 ESDP History**

According to Faludi and Waterhouf (2002), the European Spatial Development Perspective (ESDP) "towards balanced and sustainable development of the territory of the European Union" is the culmination of "years of dedicated work" by spatial planners in Europe since the 1970s and 1980s. Initiated by the French and Dutch with their centralist heritage, the Germans and others were brought in for a succession of annual meetings starting with those at Nantes and Turin in 1989 and 1990. At Leipzig in 1994, the "Principles" of the ESDP were agreed, establishing balanced spatial development as a key to economic and social cohesion. "Spheres of activity" included "a more balanced and polycentric urban system", "parity of access to infrastructure and knowledge" and "wise management ... of Europe's natural and cultural heritage". The British, who had hitherto been lukewarm or hostile to the ESDP concept, began to play a more positive role after 1997. And the ESDP itself was finally agreed by an informal Council of Ministers meeting at Potsdam as "a suitable policy framework for the sectoral policies of the Community and the Member States that have spatial

impacts, as well as for regional and local authorities" (European Commission, 1999).

There have been frequent disputes over the competencies of EU institutions to embrace the planning of land use, transport, housing and other elements of spatial planning. The principle of subsidiarity forces ESDP proponents to argue the case for extending EU powers (i.e. national and regional government constraints) into these areas. So far, the ESDP has not been formally embedded into an EU Treaty; hence the "informal" nature of the Potsdam meeting, and the lack of specific ESDP Directives, let alone a dedicated Directorate-General in the Commission.

A second reason for the hesitant and patchy acceptance of the ESDP is its "very ambiguous geographical imagination" and "contradictory discourses" (Zonneveld, 2000; Jensen and Richardson, 2000; cited in Healey, 2004). There appear to be major problems of vocabulary and language translation (and so perhaps understanding) surrounding terms such as "spatial planning", "strategic", and "city", let alone more complex concepts such as "polycentricity" and "territory". Some of these problems may arise from dissonance between the concepts of traditional (or "essentialist") geography of place and those of the newer relational geography that focuses on links and networks of flows (Healey, 2004). Others derive from the ongoing discussion within geographical economics as regards location, agriculture, and rural development (Kilkenny, 2004).

A third constraint on effective action on spatial planning at EU level derives from lack of adequate data to cover the multi-dimensional concerns of planners. Depending on the context, and perhaps viewpoint, planners are both developers in the indirect sense of helping to determine the delivery of state-funded infrastructure, and state-empowered regulators of private-sector development, trying to ensure the provision of public goods and services (or to avoid public "bads" and disservices). The EU-wide NUTS (Nomenclature des Unités Territoriales Statistiques) system still has only a limited and inconsistent relationship to national and regional systems of data collection, e.g. administrative, political, agricultural, and environmental. At a simpler level, even if DG Agri and Eurostat have developed over many years some harmonised statistical systems of agricultural census data, commodity market supply-demand balances and farm business accounts, this has not yet extended to all other sectors. Thus, for example, there is no EU-wide database of Natura 2000 sites, and many alternative definitions of "distance" (accessibility, remoteness).

Many of these problems have of course worsened considerably with the entry of the ten New Member States (NMSs) in May 2004. Even if data exists, there is so far only limited progress in collecting these into a

common database usable at either the “macro” or EU scale, or, for comparative purposes, at lower “meso” (national/regional) or “micro” (regional/local) scales.

#### **2.4.2 ESDP Concepts Applied to Agriculture and Rural Development**

The above brief historical review of the ESDP has involved a number of general terms and concepts, which, for the purposes of this study, must be applied, from a territorial point of view, to agriculture and rural development, and to the relevant policies. Such a discussion may be either theoretical or empirical; the paragraphs below seek to combine these two treatments.

*Competitiveness*: from an economic point of view, the ability to earn income (profits, increased wealth) from the resources of a particular area depends partly on the market demand for the various products and services which may be supplied, and partly on the efficiency with which the region’s resources can be utilised, including the important dynamic aspects of marketing and product innovation.

The well-known Engel’s law of economics recognises that, with growing incomes, demand for food (especially at farmgate level) grows less than proportionately. This feature of European and worldwide markets has resulted in stagnant demand for many farm commodities, and hence in reduced competitiveness of rural regions as regards food production whose prices in real terms have fallen almost relentlessly for many years. Demands for alternative land-using output, such as wood, fibre and biomass, have not compensated for reductions in the value of raw materials for food and drink.

European territories dependent on agriculture have thus experienced a long-term decline in competitiveness as regards their traditional products. Moreover, the effects have not been equally distributed in spatial terms: marginal (in geographical terms) regions have tended to suffer most, as a result of more difficult natural conditions (and particularly slack demand for red meats from grazing livestock). The establishment of the Single European Market has allowed the forces of comparative advantage within agriculture to favour those better placed geographically (climate, transport) and in terms of policy support (milk, cereals) while disadvantaging others (mountainous and some Mediterranean regions).

It is difficult to see that spatial planning, however exercised, can prevent these long-term developments. The CAP, at great budget cost, and with a number of territorially specific instruments introduced to offset the more brutal effects of inter-regional competitiveness, has not



prevent a steady drain of labour from the agricultural industry, so that income (reasonably stable in real terms) can maintain relative incomes for the remaining farming population. More direct 'planning' interventions might hinder over-intensive exploitation of certain regions (e.g. by strict landscape and water regulations), and assist others more disadvantaged (e.g. by poor communications), but are unlikely to be more successful.

Instead, the concept of competitiveness as it affects rural areas in Europe applies more and more to 'new' and non-commodity economic activity, in particular residence away from the congestion, pollution and high prices of the conurbations, and leisure, either short-term (day trips) or long-term (tourism). This 'consumption of the countryside', using income derived elsewhere ('export' services, public sector salaries, pensions, dividends, etc.), alongside a certain amount of small-scale manufacturing, has the potential to revive the economies of many (but not all) rural areas. In this respect, a 'spatial planning perspective' has much to recommend it, in order to discipline the operation of uncontrolled market forces which might lead to both the over-exploitation of certain areas through over-development and the under-exploitation of others through lack of infrastructure.

*Territorial Cohesion:* As described in the initial section of this chapter, agriculture occupies a small but central role in the economic, social and environmental character of countries and regions, and is thus a determining factor in achieving (or not) cohesion - 'the more balanced distribution of activities' - between territories. At the same time, the highly varied nature of agriculture (in comparison to, say, modes of urban transport, or household living patterns), means that allowance must be made for the inevitable (and desirable) heterogeneity of farming from place to place.

From an economic point of view, the above discussion on competitiveness suggests that overall territorial cohesion will only be attained by accepting, and adjusting to, the reducing role of agriculture as an economic industry in many areas. A spatial planning perspective must therefore identify alternative uses of land, buildings and people (human resources) within 'territories', and help to design region-specific plans, regulations and fiscal systems working towards the encouragement of necessary adjustment.

Countrywide (national) planning is likely to be much too crude to be able to achieve this level of detail; much smaller regions seem more appropriate<sup>11</sup>. One difficulty at the 'meso' and even 'micro' levels is that 'natural' agricultural regions (and hence the environments they create),

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<sup>11</sup> It is notable that, in many EU countries, such as France, Germany and the United Kingdom, regional agencies and assemblies have been given more powers over agricultural and rural development in recent years.

such as 'upland' and 'lowland', or 'peri-urban' or 'distant', tend not to overlap conveniently with most planning and administrative boundaries<sup>12</sup>. Thus, territorial cohesion has to be interpreted flexibly as regards the agricultural sector.

*Polycentricity* (the 'promotion of complementary and interdependent networks of towns as alternatives to the large metropolises or capital cities, and of small and medium-sized towns which can help integrate the countryside'; DG Regio, 2004): As can be deduced from the quoted definition, this ESDP concept arose from concerns about over-urbanisation, primarily at the 'macro' European scale in which the 'Blue Banana' of central EU cities threatened to leave other EU cities lagging behind in economic and other terms. Rural areas, and the agriculture within these, play little or no role at this level. The reference to "small and medium-sized towns which can integrate the countryside" appears to imply that such settlements can act effectively as routes by which rural areas and villages can be assisted at a 'micro' level; but this still leaves agriculture, and the countryside generally, as essentially residual in nature.

From an agricultural and rural perspective, both urban-rural relations generally, and the role of settlements in the countryside, have long been a focus of economic and sociological research. The von Thünen model of a central place supplied largely from its own hinterland may have become outdated with cheaper transport, but the Lösch/Christaller model of a hierarchy of settlements with differing levels of service provision still holds sway. More recent thinking concerns 'key settlements' as 'growth poles', possibly in 'networks' or 'partnerships', and the revival of 'market towns' as a preferred settlement type.

From an agricultural point of view, it is somewhat difficult to promote polycentrism as an obviously more efficient and desirable objective for food production: modern methods of farm production and long-distance transport have rendered the nearby proximity of settlements to farms largely redundant. Socially, the loss of the farming population, as mentioned above, has reduced the sense and utility of a 'farming community', but this does not relate directly to 'centres'. A much stronger preference for local foods, perhaps based on concerns over food safety and quality, or on (much) higher fuel costs, might suggest that more and smaller settlements could benefit farms more widely, but the prospect seems unlikely.

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<sup>12</sup> Thus Germany has introduced a regional competition "*Regionen Aktiv*" on sustainable integrated rural development which not only allows but encourages the self-definition of problem or development regions independent of administrative boundaries, even between states (Länder).

Much more promising are the more recent trends in residential and leisure patterns, which favour rural space within easy reach (and preferably within view). Driven largely by higher-income social groups seeking privacy, security, quiet and recreation, rural development can become a widespread phenomenon, with or without 'polycentres', although services such as schools and supermarkets may (but need not) lead to thriving settlements.

As argued above, the role of spatial planning in this context must be (amongst others) to prevent 'congestion' in the general sense of the term, i.e. a reduction in the average quality of life due to the unfettered actions of individuals seeking private optima, and to ensure the provision of the necessary infrastructure (hard and soft) insofar as this cannot be efficiently provided through the marketplace for lack of a pricing mechanism or appropriate institutions.

Chapter 7 returns explicitly to the ESDP concepts when reviewing the results of the analysis.

## **3 Methodology**

### **3.1 Introduction/The Common Platform**

In the ESPON programme, all TPGs have found common elements across the various ESPON projects to be helpful, contributing to coherence, clarity and efficiency of effort. These elements are known as the 'common platform', as already explained in Section 1.2.2. The most helpful features of this have been a sharing of data (reflected in the ESPON data base) and a coherence of methodology, summarised in the Matera Guidance Paper (MGP).

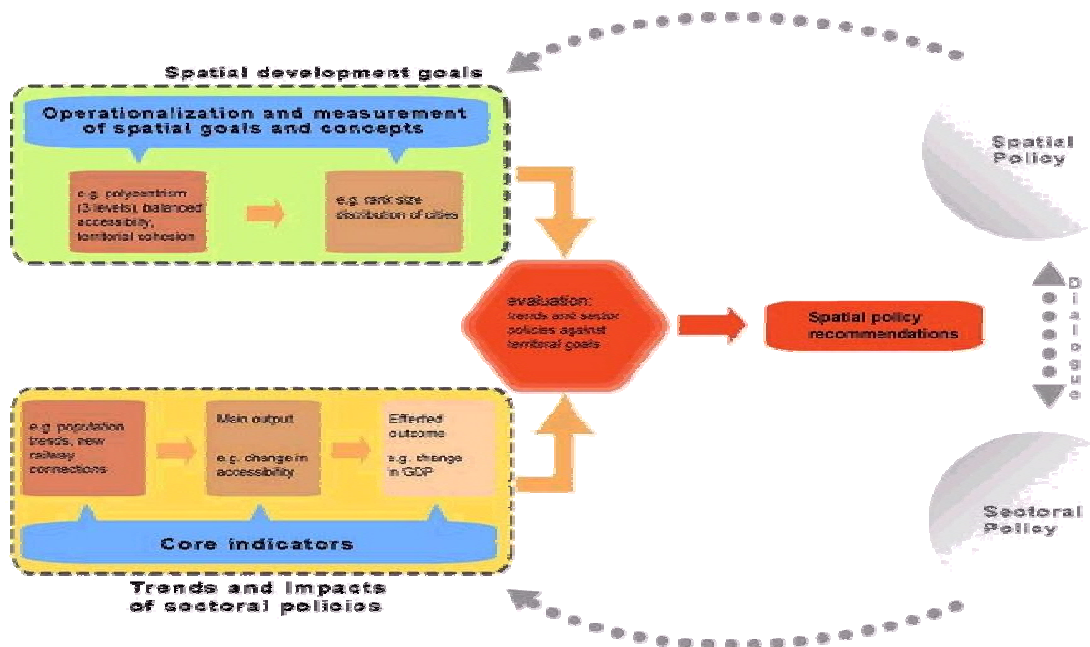
In particular, the MGP set out in a diagram the general methodological framework employed by all TPGs. In the case of Project 2.3.1, our main focus has been on those sectoral policies relating to agriculture (and rural development policies funded through EAGGF) and the extent to which these are consistent with the objectives of spatial policy, as shown on the right of Figure 3.1.

To explore this relationship, we have devoted our major effort to the analysis of the trends and impacts of these sectoral policies, as shown in the bottom left of Figure 3.1. The background to this was set out in Chapter 2, which reviewed trends in European agriculture and rural areas and summarised sectoral policy developments. The next chapter considers in detail the territorial distribution of CAP and RDP support, distinguishing between the main types of support, and considering the influence of farm size and type, accessibility and region type. In this work we have made use of some of the common typologies, and we have used statistical methods to relate this to variables such as GDP/head and population change. Chapter 5 deepens this analysis through the use of case studies of selected instruments of EU sectoral policy, while Chapter 6 uses modelling to assess the expected impacts of recent reforms to the CAP. At the same time, spatial development goals and concepts are discussed and operationalised in Chapter 2 and in this chapter, and then Chapter 7 reviews EU agricultural and rural policy from the perspective of EU spatial development goals.

It is a central part of the methodology (cf. the hexagon at the heart of Figure 3.1) to define operational models of policy goals and to confront these with statistical data. As noted in the MGP (p.5) "it is part of the political nature [of the ESDP]... that the goals agreed are not clear and operational but fuzzy and open for further discussion and interpretation," and we have sought to proceed through interaction and discussion with other TPGs.

The evaluation of trends and CAP/RDP impacts against territorial goals thus constitutes part of a larger exchange between sectoral and spatial decision-making, agriculture and regional development, and policy goals and outcomes. Such an exchange was visualised in the MGP Diagram shown in Figure 3.1 below, which as a schematic representation. This final report responds to the call to add scientific depth and analysis to the exchange taking place between agricultural sector and space in the real world. But most importantly, it aims to offer an assessment of the regional incidence of CAP/RDP expenditure and policy-induced development trends, impacts and effects which are measured against ESDP goals. For this purpose, a three-level approach has been introduced with statistical analysis addressing the macro and meso dimensions of CAP/RDP territorial impact and case study work operating in a complementary way on the micro level.

**Figure 3.1: Matera Guidance Paper diagram**



### 3.1.1 Territorial Impact Assessment (TIA)

The backdrop to the project is the wide range of economic, social and environmental contexts within which farmers operate across Europe, including the ten new Member States. In particular, there is considerable heterogeneity in the dependence on agriculture as a source of employment, the productivity of the sector, natural production differences, pattern of agricultural structures and the application of CAP in different areas. In addition, in every area, the CAP is but one of many external factors that are influencing farm-level, agricultural and rural development. It was thus essential that the TIA method adopted by Project 2.1.3 was capable of both accommodating the wide range of contexts and able to separate out, from all of the

other factors, those changes which can be attributed to the CAP and rural development policy alone. Against this background, and, given the time span available for the project, a two-stage method was proposed.

In the first stage (year 1 of the project), a number of key hypotheses were developed regarding the territorial impact of the CAP and RDP. These were presented in Project 2.1.3's FIR and subsequently revised and categorised as either high or low priority bearing in mind the aims of the ESPON programme, the aims of this particular project, time and data constraints (see Project 2.1.3's SIR).

A key issue arising from the development of hypotheses was the importance of differentiating between different types of policy instruments that comprise the CAP and RDP because:

- a) they have played a distinct role within the CAP reform process and
- b) they may have given rise to territorially distinct effects.

In particular, the decision was made to analyse separately the following:

#### Pillar 1

- Market Price support
- Direct Income payments

#### Pillar 2

- LFA scheme
- Agri-environmental schemes
- Rural development measures

Based on these hypotheses, statistical analysis has been carried out to assess the extent to which changes in the CAP are associated with observable changes in the economic, social and environmental conditions in areas at the NUTS3 level or equivalent. This has been complemented by a review of the findings from previous studies considering the spatial effects of the CAP and RDP. The findings are reported in Chapter 4. Clearly, the type of analysis that has been possible has been conditioned by the amount and quality of data available and the time available to prepare this Final Report. In addition, the territorial impacts of the Mid Term Review proposals have been estimated at NUTS3 level based on output from the CAPRI model. These are reported in Chapter 6.

Building on this, the second stage (year 2 of the project) has attempted to:

- complete the statistical analysis of Project 2.1.3's NUTS3 database, and
- use case-study methods to explore in more depth the causal relationships between CAP and rural development policy and certain apparent outcomes of policy, focusing, in particular, on how these are differentiated across space.

The case study methods adopted in Stage 2 of the project are detailed more fully in Section 3.6 and in Chapter 5.

### **3.2 CAP/RDP Assessment Objectives**

The central aim of Project 2.1.3 is to assess whether the CAP and RDP contribute to the goals and concepts of European spatial development policies. Thus the key questions for the project are whether the CAP and RDP support the goals of:

- social and economic cohesion
- environmental sustainability
- more polycentric development in Europe

Each question can be considered at three levels – macro (EU-level), meso (national-regional level) and micro (local) level. However, the CAP and RDP can also be assessed relative to their own policy objectives which include adequate farm income levels, agricultural productivity improvements, de-intensification, possibly higher or adequate diversity (e.g. mixed farming).

While this project primarily examines the territorial impact of the CAP and RDP for consistency with higher-level EU policy objectives, many of the findings are also relevant to a more narrow assessment of the CAP and RDP against its own goals and objectives, although this was not an objective of this study.

### **3.3 Data**

#### **3.3.1 Data Sources and Coverage**

Much of the first year of Project 2.1.3 was spent on the development of a dataset at NUTS3 level on a consistent basis for not only the EU-15 but also for most of the New Member States, plus Norway and Switzerland. Data was collected from 1990 onwards.

The availability of detailed territorial data on agriculture across Europe is surprisingly poor, given the extent of agricultural data collection and the bureaucratic burden on farmers. Very little data relating to agriculture are available at NUTS3 level from Eurostat, DG Regio or DG

Agriculture, and where they do exist up to 91% of data are missing. DG Agriculture reported that they have no information on CAP expenditure below national level other than Farm Accountancy Data Network data, which shows support received rather than expenditure.

As a result, the process of compiling the dataset took considerable time and much effort. Importantly, it required drawing on national and OECD sources and the use of apportionment methods (described in Section 3.4.2 below).

Data has been acquired from the following sources:

- (a) Eurostat (New Chronos) REGIO
- (b) DG Agriculture - FADN
- (c) Eurostat (New Chronos) EUROFARM
- (d) DG Agriculture – CAP/RDR Expenditures
- (e) CORINE Land Use Data
- (f) National Statistical Offices.

Many of the data sources used by the project have incompatible geographies. For instance, both the FADN and the Eurofarm use hybrids of NUTS1/2/3. In the case of the Eurofarm database these are known as “Districts”. It took considerable time ensuring that data was allocated in an appropriate way to constituent NUTS3 regions before it could be used for both mapping and statistical analysis.

The ESPON database of core indicators has proved useful for Project 2.1.3. However, a number of important indicators have not been forthcoming. In particular, an inventory of sites designated under community/national environmental legislation was requested (DAEUINPT/DAEUINPTV2) so as to derive a simple indicator of environmental quality for each NUTS3 region but this has not been forthcoming. Similarly, a dataset showing LEADER LAG areas (LDEC1MV1) or Structural Fund designations (SFEC3MV1/ SFEC1MV2-5) would have been useful to assess the territorial impact of the CAP within areas designated for various Structural Fund and rural development programmes.

### **3.3.2 Methods of Apportionment**

As noted above, very little of the raw data in the REGIO database is available at NUTS3 level. Indeed, the only indicator from this dataset widely available at NUTS3 level relating to agriculture is employment in agriculture, forestry and fishing (derived from the Regional Accounts). Similarly the FADN dataset only provides data at NUTS2 or NUTS1 level, and sometimes in non-standard areas. Finally data on CAP and RDP expenditure is not available at NUTS3 level.



Data from EUROFARM dataset, containing results from the EU surveys of the structure of agricultural holdings provides a far richer source of indicators on the agricultural sector at NUTS3 level. However, the EUROFARM dataset relates only to 'old' Member States, not N12 or EFTA countries and, even in relation to the EU-15, is incomplete. Therefore, a method was developed to apportion indicators required for analysis either from the REGIO, FADN or CAP/RDP databases from NUTS1 or NUTS2 to NUTS3 level.

The method chosen for apportionment of higher-level data on farm numbers, crop areas, livestock numbers, subsidy receipts, etc. to NUTS3 level was based on the following core set of agricultural land-use variables available at NUTS3 level either from EUROFARM or national sources:

1. arable area (ha)
2. permanent crop areas (ha)
3. utilised agricultural area (ha)
4. number of dairy cows
5. total number of beef animals (or total cattle less number of dairy cows)
6. total number of sheep and goats
7. number of agricultural holdings/farms
8. number of agricultural work units (or agricultural employment).

The actual variable used to allocate an indicator from NUTS2 to NUTS3 depended on the indicator to be apportioned. For example, in the case of disaggregating the total level of feed used for grazing livestock, the sum of variables 5 and 6 is used, on the assumption that the relative proportions of total grazing livestock is consistent with the relative proportion of feed used in each component NUTS3 region. Similarly, in allocating total cereal compensation payments from NUTS2 to NUTS3 level, variable 1, the arable area of each NUTS3 region, is being used as the apportionment variable. As indicated by these examples, the method relies on the assumption that the actions of farmers (in relation to feed per livestock unit in the first case, and enrolment on the arable payments scheme in the second) do not vary significantly within each NUTS2 region (or, alternatively, vary to the same extent within each NUTS3 region).

The collection of apportionment data from national sources proved a lengthy process. However, it significantly improved the basis for analysing the territorial impacts of the CAP and RDP than available from EU datasets. Moreover, it provided a strong basis for analysing the territorial impact of the CAP and RDP at a more localised level in the final year of the project.

### **3.4 Choice of Typologies**

Four territorial typologies were used by the project team:

- a rural area typology (developed by OECD)
- a less-favoured areas typology, i.e. LFAs vs. non-LFAs
- an urban-rural typology (developed by ESPON Project 1.1.2)
- a territorial typology based on cluster analysis of NUTS3 regions (developed by ESPON Project 2.1.3 as described below)

#### **3.4.1 A Rural Area Typology**

The well-established OECD rural typology was used in the analysis. This scheme distinguishes two hierarchical levels of geographic detail. At the local community level, it uses the basic administrative or statistical unit, in most cases the community, as the lowest geographical areas to be classified as "rural" or "urban". The communities were split by the simple criterion of population density (threshold of 150 inhabitants per km<sup>2</sup>) into rural and urban communities.

At the second stage, as regions usually comprise rural as well as urban communities, the degree of rurality was ascribed by the share of people living in rural communities, thus distinguishing the following three types of regions:

- predominantly rural areas (more than 50% of the population live in rural "communities")
- significantly rural areas (the share of the population in rural communities is 15-50%); and
- predominantly urbanised areas (less than 15% of the population is in rural communities).

This distinction between the hierarchical levels of territorial detail is central to the conceptual approach of the territorial typology. Only through the different levels can the complexity of rural problems in various national and regional contexts be seized. The framework is conceived also to allow for analysis of interrelationships between regions but to enable differentiation between rural and urban communities within a region at a lower geographic level.

There was also explicit recognition that "territorial development performance is not strictly correlated with the degree of rurality or urbanisation" (OECD, 1996: 53). In a final step of analysis, population and employment changes were thus chosen to serve as primary indicators to offer an indication of the prospects for regional development and lead to a further differentiation into leading and

lagging regions within each of the previous types. The simple split was done by comparing the regional performances with the respective national averages, which led to six types of regions (at NUTS3 level):

- Predominantly Rural + Leading
- Predominantly Rural + Lagging
- Intermediate + Leading
- Intermediate + Lagging
- Predominantly Urban + Leading
- Predominantly Urban + Lagging

### **3.4.2 A Less Favoured Area Typology**

The first initiative to introduce an explicitly spatial / territorial dimension into the CAP was the LFA directive in 1975. It was therefore felt appropriate that Project 2.1.3 utilise a typology of regions based on LFA status.

Regulation EEC No. 2328/91 provides for payment of Compensatory Allowances in designated less favoured areas characterised by one or more of the following attributes:

- permanent handicaps (altitude, poor soils, climate, steep slopes),
- undergoing depopulation or having very low densities of settlement, and
- experiencing poor drainage, having inadequate infrastructures, or needing support for rural tourism, crafts and other supplementary activities.

Through the use of the LFA typology, Project 2.1.3 can establish whether the impacts of CAP have been different between LFA and non-LFA areas. The method used to calculate the percentage of each NUTS3 area classified as an LFA is described in Appendices.

### **3.4.3 An Urban-Rural Area Typology**

The urban-rural typology (developed in 2004 by TPG 1.1.2) indicates an overall physical and functional pattern of Europe. Two sets of criteria were used in order to distinguish between different types of regions: the degree of human intervention and the degree of urban integration. There are six different types of regions:

- Urban-Rural, High Urban Integration
- Urban-Rural, Low Urban Integration
- Rural-Urban, High Urban Integration
- Rural-Urban, Low Urban Integration
- Residual-Urban, High Urban Integration
- Residual-Rural, Low Urban Integration

As seen above, the variations in the physical environment (land use) are measured by the degree of human intervention. This is considered to be 'high' in areas where the share of artificial surface is above the European average, 'intermediate' in areas where the share of agricultural land is above European average and 'low' in areas where the share of natural areas is above European average.

The degree of urban integration is measured by two different criteria: population density above/below the average (107 inhabitants/km<sup>2</sup>) and the position of the most significant centre in the urban hierarchy (at least a European level functional urban area – based on ranking developed by EPSON Project 1.1.1). The assumption is that the rank of an urban centre corresponds with its influence on the NUTS3 area. High urban integration would thus be characteristic to all NUTS3 areas with at least a European level Functional Urban Area. The areas with population density above the European average have also been included in the category of high urban integration.

#### **3.4.4 A Cluster Typology**

A Cluster Analysis was undertaken as part of this project to find similarities and differences among NUTS3 regions on the basis of social, economic and territorial indicators, which differentiate regional developments according to thematic requirements (e.g. commodities, types of areas etc.). The emerging clusters are the basis of a territorial typology used both to enrich statistical analysis and to inform the choice of case studies for the second stage of the project. To this extent, cluster analysis helped to avoid focusing solely on case studies typical of national differences but also reflecting interregional similarities and differences below national level. The details of this analysis are given in Appendix A2.

Particular attention was given to the following three indicators:

- land use cover (as proxy for the productive capability of land and farm types),
- employment in agriculture, forestry and fishing, and
- average farm size.

None of these variables were available for the N12. However, even the availability of EU-15 agricultural data from Eurostat, DG Regio or DG Agriculture was limited, with missing values, apportionment difficulties and incompatible geographies dictating caution in the interpretation of the results. The large number (1329) of NUTS3 regions also restricted the variety of clustering methods available. To this extent, two clustering exercises were undertaken, one for the EU-15, and the other for the N12, reflecting both differences in policy and in data availability.

### 3.4.5 Cluster Results for the EU-15

Clusters are described in terms of their profiles, that is the mean values of each variable. The detailed description of the cluster profiles is presented below in an agriculture-related ranking, that is to start from the more urban-based clusters towards the more agriculturally-based clusters. Table 0.7(in Appendices) shows the names given to each cluster on the basis of final cluster centres (mean values) (Table 0.5), cross-tabulation (country, LFA type and OECD type by cluster membership) (Table 0.6), visual inspection of maps, and the identity of distinguishing variables (that is, relatively high or low cluster mean values, in levels or changes). This description is a thematic style of presentation, which turns on the axes of area type and commodity. Moreover, it reinforces the statistical assumption made at the beginning of this exercise that there is no higher level of organisation that groups the clusters in a specific order. Ten clusters emerged for the EU-15, and these may be summarised as follows:

<b>‘Macro-City’</b>	76 NUTS3 regions, <sup>13</sup> comprising the urban areas in and around the largest European cities, which have the status of financial, industrial, cultural, political and/or administrative centres. Their most distinguishing features are their urban character (the highest population density), their prosperous economy (the highest GDP/h), and their higher-than-average accessibility at both macro (EU) and meso (EU region) levels. Employment in agriculture etc. is low, as expected in areas of large conurbations, but a higher-than-average rate of change in employment in agriculture etc. combined with fewer than average proportions of farmers over 65 years old suggests the existence of a vibrant peri-urban agriculture.
<b>‘Meso-Accessible’</b>	345 NUTS3 regions, <sup>14</sup> many of which are in Germany, France, Italy and Belgium. The main distinguishing feature is the high accessibility at macro and meso (EU region) levels. Moreover, recent rates of GDP/head are relatively high, and rates of unemployment are relatively low, i.e. partial evidence of regional prosperity. There is an influx of population, which may be a regional expression of counter-urbanization (e.g. by seekers of a rural ‘idyll’) at the EU level. A higher than average change in employment in agriculture etc. and hotel expansion are also reported. Thus the meso-accessibility of these NUTS3 regions is positively accompanied by the outcomes of other socio-economic forces.
<b>‘Northern Mixed Economy’</b>	164 NUTS3 regions, <sup>15</sup> of which 91 are in the UK. This cluster accounts for most of the territory of Ireland (north and south), and half of Austria. Most are meso-accessible, medium-sized city regions in north-west Europe, but have more hotels than average.

<sup>13</sup> e.g. Brussels, Stuttgart, Paris, Milano, Hannover, Wien, Liverpool, Nottingham, Dusseldorf etc.

<sup>14</sup> e.g. Edinburgh, Rome, Lisbon, Graz, Southend-on-Sea, Gaz, Aland, Cote d’ Or, Verona, Noord-Drenthe etc.

<sup>15</sup> e.g. Glasgow, Oxford, Surrey, Suffolk, Aberdeen, Liezen, Bludenz-Bregenzer Wald, Ravensburg etc.

	GDP/head and unemployment are average. Their agriculture rather accentuates the mixed character of their economic activities and their lack of dependency on a single sector. Their land use patterns are characterised by higher than average grass cover mainly used for grazing, which suggests pockets of intensive farming. Alternative sources of farm incomes are important for this cluster and there may be a significant proportion of pluriactive farm households.
<b>‘Southern Lagging’</b>	43 NUTS3 regions, <sup>16</sup> comprising a mixture of sparsely populated areas, medium-sized towns and large urban centres such as Athens. Its particularity lies in a combination of lower than average GDP/head and low accessibility at macro level. Their southern geographical position emerges as a disadvantage – confirmed by their LFA status and Intermediate + Lagging OECD type, leading to higher than average unemployment. A blend of small-scale agriculture (higher than average employment in agriculture and percentage of farmers aged over 65 years old and lower than average farm size) with industry and services emerges as the outcome of their development trajectory after twenty years of CAP and RDP. However, the catching-up process seems to be on the way, as suggested by the higher than average growth rate of GDP/h at EU region level. Their land use patterns are typically Mediterranean, with higher than average cover values for olives, vineyards, fruit trees, annual crops and natural vegetation.
<b>‘Agricultural Peripheral’</b>	111 NUTS3 regions, <sup>17</sup> mostly southern peripheral areas in Spain, Greece, Italy and Portugal, with higher than average areas of permanently irrigated crops, complex cultivation patterns, and agriculture with natural vegetation alongside the typical Mediterranean olive and fruit trees. Their peripheral geographic position, LFA status, and predominantly rural character – as defined by the OECD rural typology – are the main features. The agricultural sector dominates their economy, with small farms, land fragmentation, and the great majority of farmers being over 65 years old. Consistent with what is considered the norm for Europe’s rural periphery, higher than average rates of unemployment and lower than average rates of GDP/head and population density are also reported for this cluster. However, considerable dynamism is observable in the tourism sector.
<b>‘Agricultural Tourism (Coastal)’</b>	18 NUTS3 regions. <sup>18</sup> This is the most clear-cut cluster, including almost all the Mediterranean islands and southern coastal regions, which are well-known places of tourist attraction. Nevertheless, these regions remain part of the Southern European Agricultural Periphery, and most are characterised as predominantly rural and lagging by the OECD typology. They thus exhibit: low levels of GDP/head, small farm size, high numbers of farmers over 65 years old, and high employment in agriculture, forestry and fishery. Most importantly, their economy is hampered by their low accessibility at meso level (i.e. limited road/rail connections to adjacent regions), despite their high accessibility at macro level (i.e. to foreign regions), due to recent

<sup>16</sup> e.g. Lakonia, Lefkada, Attiki, Pinhal, Genova, Chalkidiki, Cordoba, Jaen, La Spezia, Prato etc.

<sup>17</sup> e.g. Matera, Evros, Grevena, Kastoria, Karditsa, Cagliari, Lappi, Etela Savo, Napoli, Barcelona etc.

<sup>18</sup> e.g. Kyklades, Brindisi, Acores, Islas Balaeres, Taranto, Algrave and Madeira etc.

	improvements in air traffic. A higher than average growth rate of GDP per head is an indicator of their comparative advantage. Typical southern European land use patterns, representative of the Mediterranean climate: olive trees, fruit, vineyards, annual crops and natural vegetation.
<b>‘Diversified Farming’</b>	41 NUTS3 regions, <sup>19</sup> most in the Netherlands and the UK. This cluster represents the ‘success stories’ of the European model of agriculture. The existence of intensive large-scale (possibly dairy) farming and tourism infrastructure can be detected in this cluster which is characterised by higher than average GDP per head, average farm size and number of hotels and lower than average unemployment rates. Case study work would provide further information. However, the categorisation of this cluster of NUTS3 regions as predominantly-urban + lagging by OECD, with most of them having no claim to an LFA status, suggests a pluriactivity scenario. Most importantly, these NUTS3 regions are also seen to compete effectively on the grounds of their meso and macro accessibility at the EU level. Their main land use appears to be pasture (used for grazing) which provides additional support to the hypothesis of prevalent dairy farming.
<b>‘Core Farming’</b>	253 NUTS3 regions, <sup>20</sup> of which 182 are in Germany. The much higher than average farm size is the distinguishing factor in this cluster and implies the existence of a productivist regime in these agricultural areas, with large scale farming being the prevalent type. Lower than average numbers of hotels and farmers over 65 years old, and higher than average change in age of farmers over 65 years old are consistent with this being the agricultural centres of Europe situated around small cities or medium-sized towns such as Bedfordshire (UK) or Bielefeld (DE). In terms of accessibility, these regions are not disadvantaged. Their land use patterns are dominated by rice cultivation, complex cultivation and agriculture with significant areas of natural vegetation (see endnotes for Corine Land Cover Definitions). Most of them do not have LFA status.
<b>‘Viticulture’</b>	20 NUTS3 regions <sup>21</sup> with more than half in France. These regions are mainly distinguished by their higher than average percentage of areas planted with vines. They are characterised by relatively low employment in agriculture, forestry and fishery, but with high levels of unemployment and population change. The land use patterns of this cluster are mostly responsible for distinguishing this group of regions from the ‘Meso-Accessible’, numbered Cluster 10.
<b>‘Sweden’</b>	The most statistically problematic cluster, due to the unavailability of land use data for Sweden. In this cluster, the great majority of Swedish NUTS3 regions (19) <sup>22</sup> alongside three Italian ones with a high percentage of land developed for rice cultivation are grouped together on the basis of their lower than average rates of change for population, unemployment, GDP/head and farmers over 65 years old. The majority of these regions are sparsely populated, and have acquired LFA status, and have been categorised as predominantly rural + lagging in the OECD rural typology. To this extent, stagnation appears to be the sole driver of their clustering here, which may not reflect their actual situation. Lower than average numbers of hotels exist.

<sup>19</sup> e.g. South West Ireland, North Yorkshire, East Cumbria, Oost-Groningen, Tiroler Oberland, Trento etc.

<sup>20</sup> e.g. Norfolk, Cambridge, Nord, Weinviertel, Somme, Loiret, Landes, Bielefeld etc.

<sup>21</sup> e.g. Oeste, Alzey-Worms, Aude, Gard, Hérault, Bad Durkheim, Gaudeloupe, Martinique etc.

<sup>22</sup> e.g. Vercelli, Novara, Pavia, Uppsala, Dalarnas, Jamtlands etc.

### 3.4.6 Cluster Results for the N12

The distinguishing variables (relatively high or low cluster mean values, in levels or changes) (Table 0.9) are used to describe observed similarities and to evaluate the seven emerging clusters for the N12 (Table 0.10). As for the EU-15, the cluster profiles are presented in a thematic rather than in a numerical order, and more specifically, in terms of accessibility, which eases interpretation and understanding:

<b>‘Polish Cities’</b>	Contains only 6 NUTS3 regions, <sup>23</sup> comprising the areas in and around most of the large conurbations in that country, e.g. Warsaw (higher than average population density and population levels). Their main characteristic is the high accessibility indices at macro and meso (EU region) levels. Higher than average rates of GDP/head change and unemployment change express a dynamism which typifies the cluster. Complex cultivation patterns prevail such as peri-urban land use in Polish cities, which also appear to have a lower than average percentage of fruit trees and vineyards.
<b>‘Dynamic Remote’</b>	19 NUTS3 regions, <sup>24</sup> mainly in Poland and the Baltic States. Most are medium-sized city regions but have low accessibility indices at macro (EU) and meso (EU region) levels. However, rates of GDP/head change are high, whilst the actual level of GDP/h remains relatively low. Juxtaposition of remoteness (at EU region level) and dynamism mark these regions of great potential. An Eastern European land use pattern of higher than average complex cultivation patterns existing around medium and large conurbations is also detected here, as is the case with ‘Polish cities’
<b>‘Static Remote’</b>	29 NUTS3 regions, <sup>25</sup> of which 21 are in Romania and 7 in Bulgaria. These are all sparsely populated, and with low levels and growth rates of GDP per head. The cluster’s location on the fringe of the EU27 map (low accessibility indices at macro and meso level) is mostly part of the troublesome and isolated Balkans, but it appears to have a stable labour market, i.e. average levels of unemployment accompanied by low rates of change. To this extent, the core economic indicators reflect what seems to be a particularly lengthy process of integration to the EU27. In other words, this cluster is concerned with regions in a precarious equilibrium.
<b>‘Lagging Remote’,</b>	48 NUT3 regions, <sup>26</sup> of which 20 are in Bulgaria, 13 are in Romania. Moreover, the Baltic States are strongly represented in this cluster. Macro-remoteness is testified here by a very low accessibility index at macro level. These are the most peripheral regions in continental Europe (EU27), with capital cities also being included, e.g. Sofia. Higher than average level of

<sup>23</sup> e.g. Warszawa, Poznan, Poludniowoslaski, Poznanski, Wroclaw etc.

<sup>24</sup> e.g. Lodz, Krakow, Klaipedos, Riga, Burgas, Alytaus etc.

<sup>25</sup> e.g. Salj, Cluj, Maramures, Suceava, Karlovarsky etc.

<sup>26</sup> e.g. Presovsky, Covasna, Sofia, Lomzynski, Braila, Vidin, Montana, Vratsa etc.



	unemployment rates and lower than average levels and growth rates of GDP per head show the ‘lagging’ character of this cluster’s economy. These regions are sparsely populated with most of the land being under permanent irrigation, in sharp contrast to the norm for all other NUTS3 regions in the N12 zone. As a result, a hypothesis of intensive agricultural land use – comparatively speaking – can be formulated for this cluster.
<b>‘Dynamic Macro-Accessible’</b>	34 NUTS3 regions, <sup>27</sup> in Poland and Slovakia. Their main distinguishing feature is their central geographical position in Europe, which is reflected in a high accessibility index at macro level. However, their accessibility index at meso level remains particularly low due to largely national problems of road/rail infrastructure. These regions are sparsely populated, with low levels of GDP/head and high levels of unemployment. Most importantly, this cluster of macro-accessible regions exhibits higher than average rates of change in both unemployment and GDP/h – indicative of energising forces in action. A higher than average percentage of non-irrigated arable land is also observed.
<b>‘Meso-Accessible’</b>	The Mediterranean islands of Malta and Cyprus, plus the capital city of Bucharest. The defining characteristic is poor data availability. For Malta and Cyprus, no statistical information was found in terms of population, population density or land use patterns. As a result, the clustering exercise was based on only two indicators: accessibility and GDP/head. To this extent, the only reliable conclusion about this cluster can be made in relation to their low accessibility at macro (EU region) level and high accessibility at meso (EU region) level; this primarily reflects ‘regional idiosyncrasies’.
<b>‘Stable Accessible’</b>	51 NUTS3 regions, <sup>28</sup> mainly in Hungary, Czech Republic, Slovenia, and Romania. The capital cities of Prague and Budapest are also included in this cluster. High accessibility indices at meso and macro level go hand in hand with high levels of employment (the lowest level/change in unemployment) and average GDP/h. These are NUTS3 regions which have succeeded in generating a steady flow of jobs and money. The key factor in explaining their advantage is the long-term stability displayed by their core economic indicators, which avoid fluctuation and thus match what is the ‘standard’ for the EU-15.

### 3.5 Case Study Methods

Case studies were undertaken to provide deepened insight into the core issues, i.e. detailed empirical information on the territorial incidence of the CAP/RDP and more evidence on the impact of CAP/RDP measures on the economic, social and environmental situation in regions of different types. Thus, the aim has been to improve the assessment of cause-effect relationships between policy instruments and economic,

<sup>27</sup> e.g. Bratislavsky, Telsiu, Gorzowski, Radomski, Zilinsky etc.

<sup>28</sup> e.g. Praha, Budapest, SI, HU, Goriska, Satu Mare, Ilfov, Trenciansky kraj etc.

social and environmental outcomes through the case studies, which will primarily make use of existing work and studies. Within the selected case study areas the focus was on (more differentiated) territorial information about the application of CAP/RDP instruments, in particular the territorial (mainly regional) effect of specific schemes (and/or the combined effect of policy programmes).

The selection of case study areas was undertaken on the basis of these criteria:

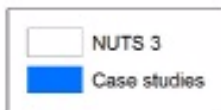
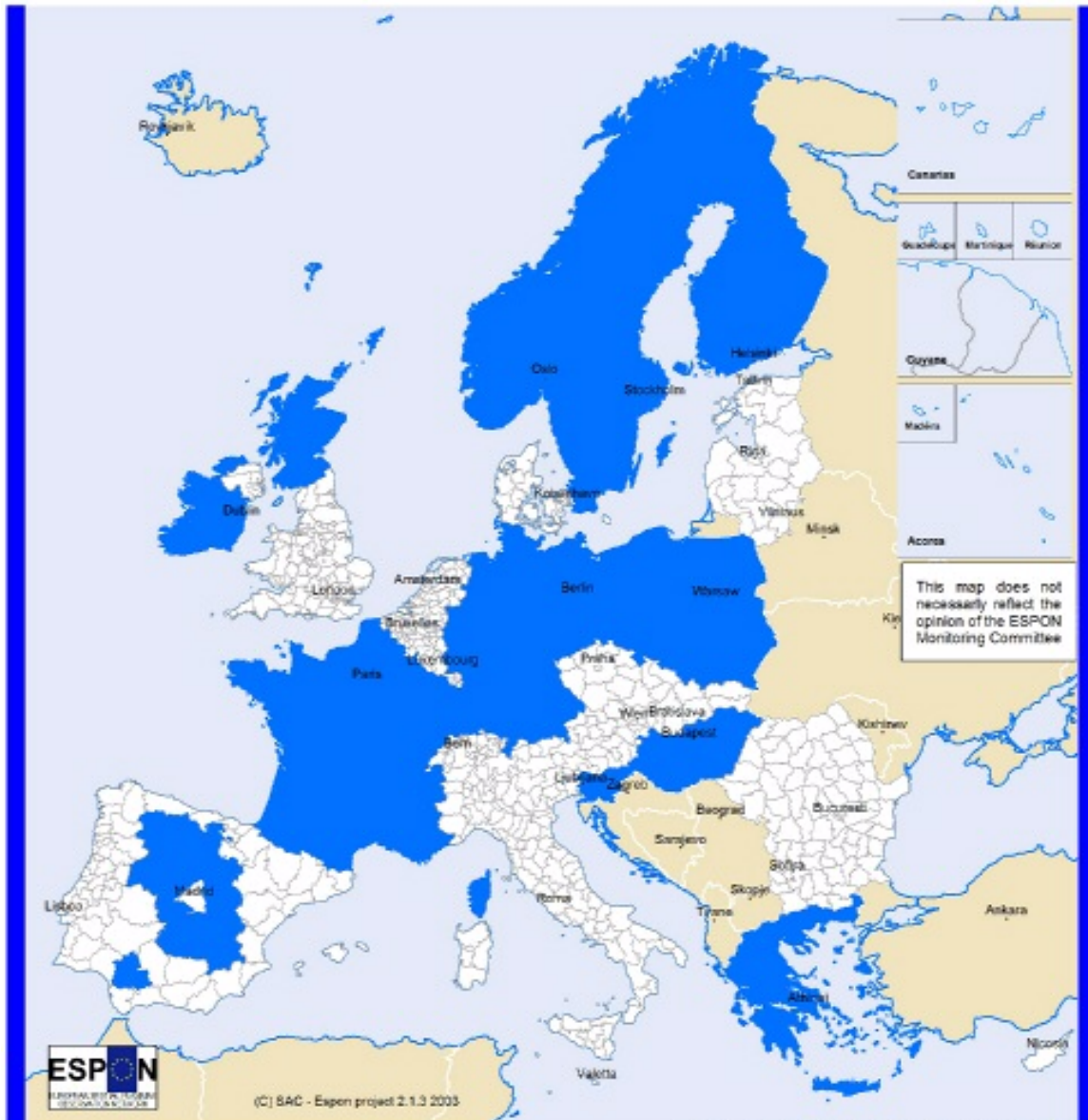
- availability of information for case studies
- existing relevant studies and evaluations
- quantitative assessments at national and EU-level
- application parameters of measures (i.e. scope of measure in national contexts where measures are applied horizontally), or regional application, geographical definition, 'quality' of application, etc.
- cluster results

The focus of the case studies was on the two following themes:

1. Farm household adaptation to changing policies and associated developments in pluriactivity
2. Good practice in territorial rural development

These were investigated in slightly different ways, as explained below. However, in order to relate the case studies to the statistical analysis (and to other ESPON TPGs), the analysis was carried out in terms of NUTS3 regions, i.e. one or a few of these (even a whole country), and/or by type (e.g. OECD type(s), Cluster type(s), or LFA/non-LFA, etc.). The selected case studies are shown in Map 3.1, which illustrates their geographical distribution and cover.

**Map 3.1: Case study areas**



### **3.5.1 Changes in CAP/RDP and Farm Household Adaptation**

The aim here was not a differentiated analysis of different policy schemes but an assessment of the factors affecting household decisions and adaptations overall, and the role of the CAP/RDP within this broader context. In particular, this work focused on major changes in the CAP/RDP (particularly subsequent changes since the MacSharry reform) and how these influenced farm household adaptation. Such adaptation would thus reflect the changing balance of support through both Pillar 1 and Pillar 2, as well as relevant “new” CAP regulations, alongside other changing policy, market and social influences. A direct investigation of published reports in a territorial impact assessment framework was the basis of this work.

The key questions for themes 2 were:

- What are the main factors driving farm household adaptation processes? (Pillar 1, Pillar 2, non-CAP policies, regional economy, social factors and developments etc. can be seen as different types/groups of factors influencing such adjustment)
- Is there a territorial concentration of different types of farm income sources and a change in the type and degree of pluriactivity involvement over time? (Is the level of pluriactivity and are the changes different for the types of rural areas selected?)
- What is the relation between (and the roles of) Pillar 1 and Pillar 2 measures, and do they cause different adaptation processes?
- Can diversification of farm incomes be differentiated by share of tourism employment (and its change over time), change in employment in the environmental sector and landscape protection, activities in nearby towns, such as crafts, SME start-ups, IT, etc.? Does this differentiated analysis of non-farm activities provide deeper insights into the main strategies of farm households?
- What is the role of the local economy, and how does the strength of the regional economy impact on farm household pluriactivity development? The strength of the local economy may be measured in economic terms, e.g. by share of non agricultural employment in total number of jobs, GDP per capita, low levels of out-migration, but also in more qualitative terms: e.g. a highly developed regional strategy which includes co-operation between agricultural and non-agricultural sector at local/regional level will make use of the diversification potential of agriculture and of the positive role of pluriactivity for the region.

- What is the outcome for the environmental development of agriculture due to farm household adaptations (differentiated for farm groups and regions)? Is there a relationship between pluriactivity and intensity of agricultural production? Is there a relationship between pluriactivity and organic farming? Is there a relationship between pluriactivity and accessibility of regions?

The syntheses of findings on these core questions, in particular on territorial relevant information and impact, linkage to NUTS3 regions and additional findings on cause-effect relationships between 'good' or 'bad' policy performance and end results, are addressed and thoroughly examined in Chapters 4, 5, 6, and 7. The case studies reflect our hypotheses, particularly that addressing the dependence of pluriactivity development on the CAP and its (possibly stronger) relation to the local economy (see hypotheses, SIR, p.49 and 90, TIR, p.73). It was hypothesised that "changes in the level of farm household pluriactivity are more strongly associated with variables reflecting the strength of the local economy than the level of CAP support." This type of case study focused particularly on the driving forces for farm household behaviour and its regional differentiation.

### **3.5.2 The Territorial Impact of Selected Policy Instruments and Good Practice in Territorial Rural Development**

The selected policy instruments for the case studies are three major sub-programmes/schemes of CAP Pillar 2 instruments (including the accompanying measures established since the 1992 CAP reform, the LFA scheme, and examples of more integrated programmes, in particular LEADER). An overview of the similarities and differences of application of instruments between case studies was also attempted. Analysis of "Good Practice" (which is taken to include "good structures"<sup>29</sup>) by Pillar 2 organisations was taken to include analysis of the institutional context and behaviour for Pillar 2 measures, such as take-up rates, eligibility, consultation, advisors, co-funding, support structures, etc. The institutional context seems to be decisive for the implementation and "good" performance of a programme.

As to the following selected policy instruments, there are a host of studies and evaluations available on the implementation of the measures in the countries and at regional level, most of which rarely address the spatial impact of the instruments. Agri-environmental programmes, farm retirement scheme and LFA scheme are therefore discussed against the issue of relevance for specific regions and in

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<sup>29</sup> That is the shape, size etc. of the organisations and agencies that promote rural development.

terms of more general impacts on different regions and on the environment. Case studies have been undertaken in relation to the following Pillar 2 policy instruments within regions/countries which seem to be particularly instructive for the implementation of the specific measures:

**Table 3.1: List of Case Studies**

<i>CAP (pillar 2) instrument</i>	<i>Case studies</i>
<b>Agri-environmental programme (AEP)</b>	Spain (Steppeland cereal programme, Castilla y León; income compensation programme, Castilla La Mancha; integrated rice production, Guadalquivir river) Germany Austria (Bludenz-Bregenzerwald) Ireland Hungary Norway
<b>Farmers' early retirement scheme (ERS)</b>	Greece (Lesvos) France Ireland Spain (Castille and Leon) Finland Norway
<b>Less-favoured areas scheme (LFA)</b>	Austria (Bludenz-Bregenzerwald) UK (Scotland) Greece Sweden Slovenia Hungary
<b>LEADER programme</b>	Austria (Bludenz-Bregenzerwald) Germany (with <i>Regionen Aktiv</i> ) Spain (Adema, in Soria)

These case studies were selected to reflect both the main priorities of measures under Pillar 2 and changes with regard towards higher integration of agricultural measures in regional programmes. The information presented thereafter summarises a number of case studies

across the European Union, including the new Member States, which either reflect the importance of the specific measure for that country or its special position among the various application frameworks.

According to the theme under investigation, the case studies have addressed different set of questions: All the good policy performance questions were based on key elements of an integrated approach to local rural development" (Roberts *et al.*, 2001) as summarised in ESPON 2.1.3 TIR (2003: 147).

The key questions for theme 1 were:

- *General characterisation of the CAP/RDP instrument*  
What are the central criteria for the eligibility and assessment of the measure/programme? Focusing on territorial information and effects, what new information can we provide in addition to the conclusions of existing studies?
- *Institutional framework*  
Policy implementation: What is the level of administrative decision-making (EU, national, regional and local), i.e. the degree of decentralisation?  
Co-operation: Is the programme animated by a spirit of partnership and dialogue between private and public organisations at regional and national levels?  
What constitutes the opportunities for co-ordination and co-operation at the different administrative levels and between them?  
Administrative background: What is the role of public-private funding, conditions of eligibility, target groups, time period, support structures for the assessment of the scheme (mediation, technical assistance, professional advisors etc.)?
- *Application and realisation of measures (good policy performance)*  
Is the programme/measure related to a specific territory? Is it conceived according to the specific requirements and needs of the region concerned?  
To what extent it is based on the endogenous potentials of rural areas?  
What is the involvement of different local actors?  
Does it include all sectors of the economy (agriculture, industry and services)?  
Does it constitute an integrated approach to governmental actions (inter-agency, co-operation between different programmes in a certain territory etc.)?  
What are the main factors contributing to 'good performance' of each measure?

- *Regional impacts*

With regard to social development (regional identity, empowerment, demographic change, educational level etc.), what constitutes the main regional impact?

With regard to economic development, what are the impacts on regional income, agricultural and non-agricultural shares of employment, farm and non-farm structural change, unemployment rate and commuter rate?

With regard to environmental development, what are the impacts on biodiversity, landscape quality, nitrate pollution, etc.?



## 4 Territorial Distribution of CAP/RDP Support

### 4.1 Introduction

This chapter considers the way in which CAP support has been distributed across European territory. European farmers operate in a wide range of economic, social and environmental contexts across Europe. Moreover, there are considerable differences in natural production conditions, and high variation in agricultural structures and production methods. Thus, analysis was expected to highlight territorial imbalances in the incidence of the CAP and RDP support. However, the extent and nature of these imbalances were difficult to predict. The results presented in this chapter are based on a statistical analysis of indicators and data at NUTS3 level over the period 1990 to 2000, augmented by findings from an EU-wide review of literature, that is the first stages of the TIA method described in Chapter 4 of this report.

Since the different types of support (market price support, direct income payments, agri-environmental payments etc.) have each played a distinct role within the CAP reform process and may have given rise to territorially distinct effects, the chapter considers the incidence of Pillar 1 and Pillar 2 support separately before considering more generally the influence of farm type, accessibility and region type on the distribution of support. The final section of the chapter summarises the findings.

### 4.2 Pillar 1 Support

An initial hypothesis developed by the project team was that **the distribution of the Pillar 1 support is not consistent with the economic or social cohesion objectives of the EU**. To test this proposition, the relationship between the level of Pillar 1 support received by each NUTS3 region and GDP per inhabitant, unemployment rates and population change of each region was investigated. In this and subsequent analyses, Pillar 1 support is defined as the sum of the value of market price support (MPS) and direct income payments received by farmers.

MPS data were derived from the apportionment of OECD E.U.-level data to NUTS3 regions, while the value of direct payments was derived from the FADN database apportioned to NUTS3 regions (see Appendices 5.1 and 5.2 for details). To allow for differences in the scale of NUTS3 regions, the level of support per agricultural work unit (AWU) and per hectare of utilisable agricultural area (UAA) were taken as the basic

units of analysis. The year investigated was 1999, prior to the Agenda 2000 reforms but well into the period following the MacSharry reforms of the CAP. The population change indicator for each NUTS3 region relates to the 1989 to 1999 period and has been weighted by the level of population in each region to allow for scale effects.

Table 4.1 reports the correlation coefficients between Total Pillar 1 support and indicators of economic and social cohesion (GPD per head, unemployment rates and population change).

**Table 4.1: Pearson Correlation coefficients between level of total Pillar 1 support accruing to NUTS3 regions and socio-economic indicators, 1999**

	GDP per head	Unemployment rate	Population change '89-99	<i>Support per ha UAA</i>	<i>Support per AWU</i>
Support per ha UAA	0.088(**)	-0.305(**)	0.216(**)	1	0.261(**)
N	1051	945	892	1051	1051
Support per AWU	-0.143(**)	-0.095(**)	0.117(**)	0.261(**)	1
N	1053	947	892	1051	1053

\*\* Correlation statistically significant at the 0.01 level (2-tailed).

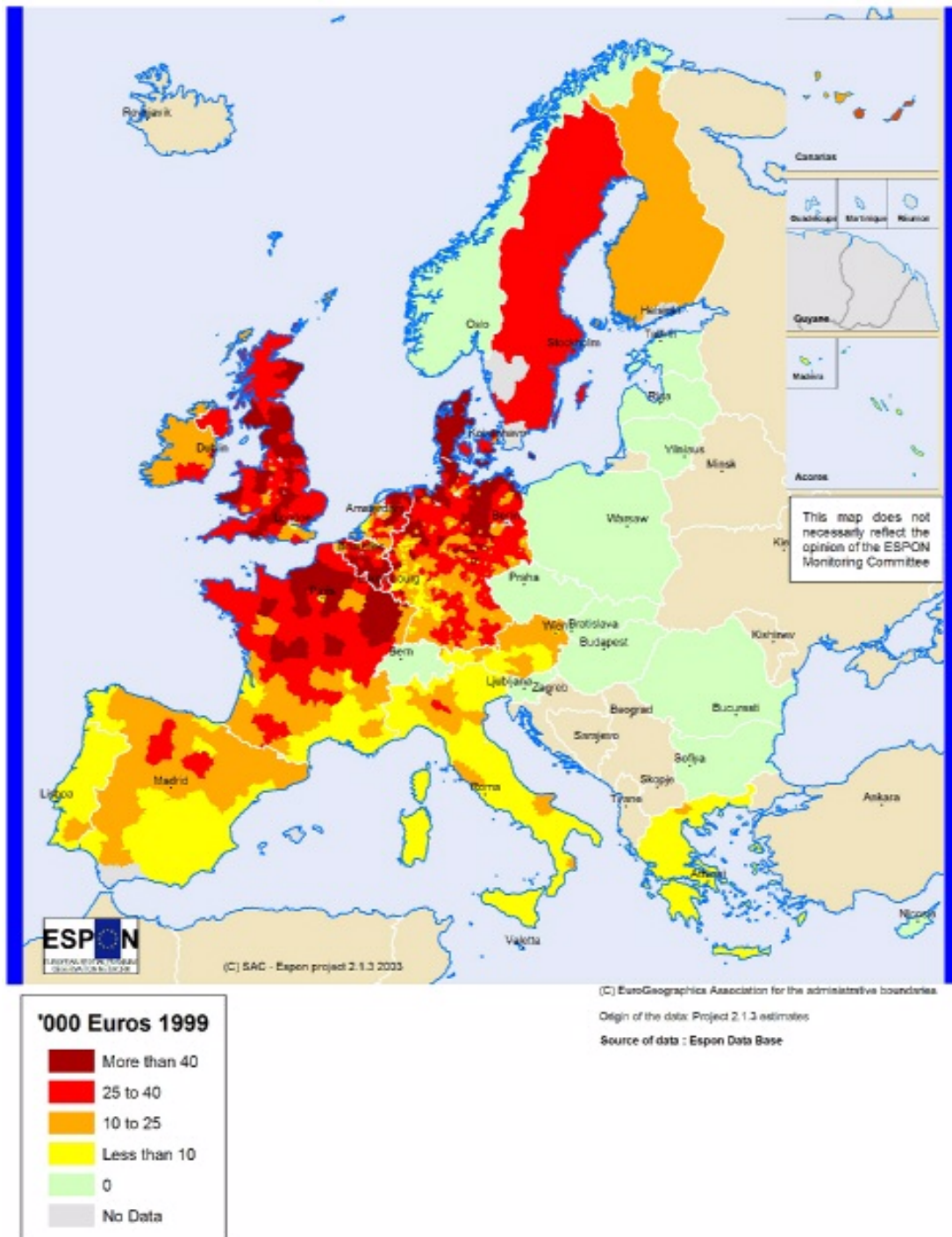
Concentrating first on the level of support per hectare UAA, the results indicate that, in 1999, total Pillar 1 support was distributed in such a way that it tended to benefit richer regions, regions with lower unemployment rates and regions with growing populations. They thus support the hypothesis that the incidence of Pillar 1 support acts in such a way that it does not contribute towards the economic and social cohesion objectives of the EU.

However, when considering support per Annual Work Unit (AWU) employed in agriculture, the findings are somewhat different. In particular, whilst higher levels of support still seem to be associated with regions with lower unemployment rates and higher population gains, a significant negative correlation coefficient was found between support levels per AWU and per capita GDP. In other words, while Pillar 1 support per hectare goes unambiguously to richer regions, support per worker is distributed more ambiguously.

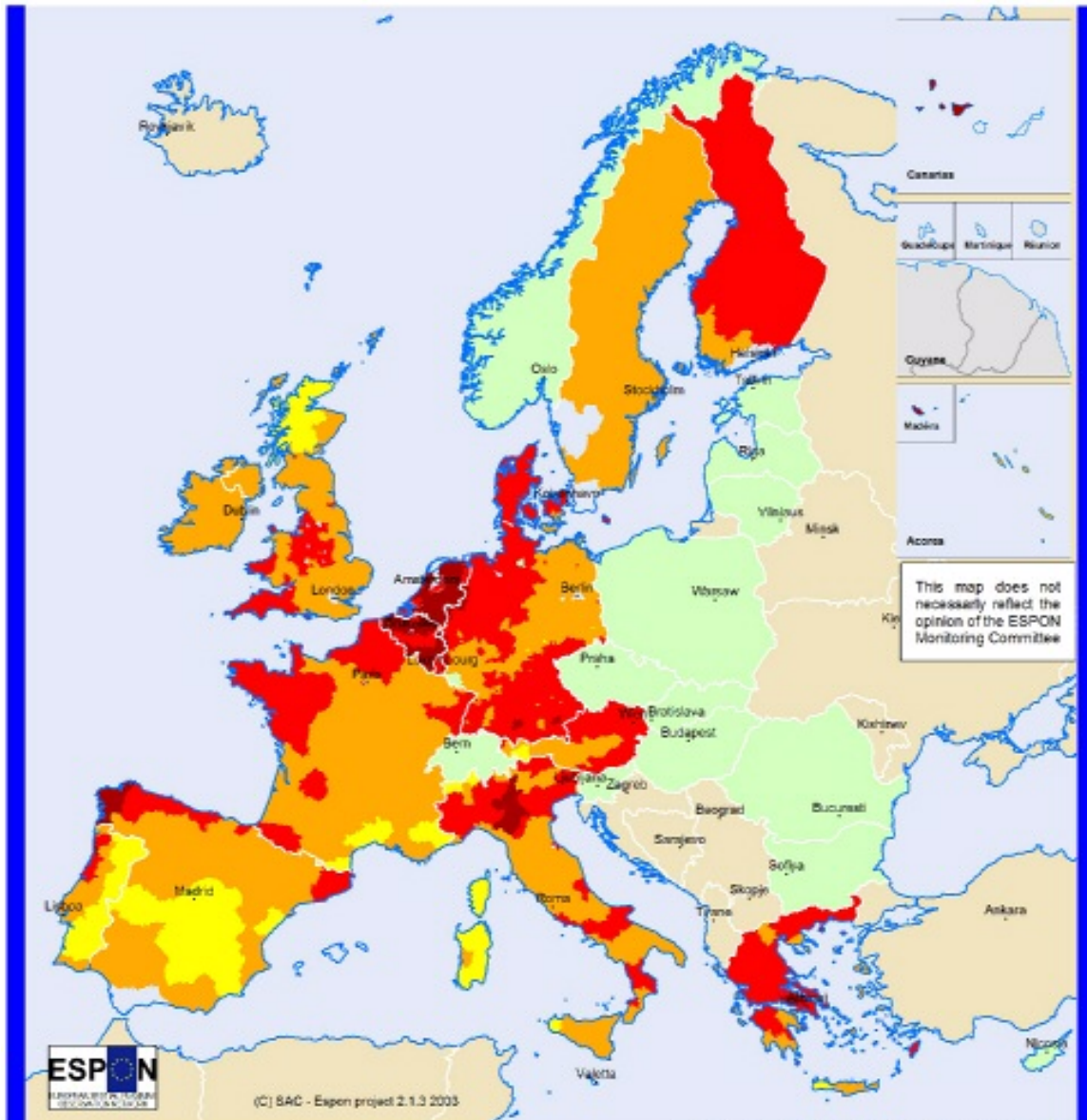
To explain this, consider the final two columns of Table 4.1 which show that support per AWU and support per ha UAA are not closely correlated with one another, due to substantial differences in the land and labour intensity of different agricultural production systems. This explains why different perspectives on the distribution of support are gained depending on which denominator is used in the analysis. This

point is also indicated in Map 4.1 and Map 4.2: while Map 4.1, showing Pillar 1 support per AWU shows a concentration of support in northern areas of Europe, the distribution appears more dispersed when expressed per ha UAA (Map 4.2). In the latter case, areas of northern Spain, parts of Italy and Greece are among the highest beneficiaries. In both cases, significant differences in the level of support received by farmers within national boundaries can be detected.

**Map 4.1: Total Pillar 1 support per AWU, 1999**



**Map 4.2: Total Pillar 1 support per hectare UAA, 1999**



(C) EuroGeographics Association for the administrative boundaries  
 Origin of the data: Project 2.1.3 estimates  
 Source of data: EspoN Data Base

In general, Table 4.1 confirms the expectation that Pillar 1 of the CAP, with its strong production focus, is not helping to achieve the cohesion objectives of the EU. While this may have been acceptable in the early decades of the CAP when policy objectives were focused on ensuring food security and economic efficiency, it is now, arguably, increasingly problematic. The agrarian concept of rurality that underpinned the CAP in the 1960s and 1970s is becoming less and less appropriate in the emerging context of a "post-industrial" European rurality (Sotte, 2003) and the limitations of the traditional CAP are especially problematic in the context of EU enlargement (Buckwell *et al.*, 1995).

#### 4.2.1 Differences Between Pillar 1 Measures

Correlation analysis was used to investigate the relationship between the two policy instruments that comprise Pillar 1 of the CAP - MPS and direct income payments - and socio-economic indicators. The results, which are summarised in Table 4.2 indicate that the largest element of the CAP, market price support, like total Pillar 1 support, was distributed in a manner inconsistent with social and economic cohesion objectives.

**Table 4.2: Pearson Correlation coefficients between the level of Market Price Support and Direct Income Payments accruing to NUTS3 regions and socio-economic indicators, 1999.**

	Support per ha UAA	Support per AWU	GDP per head	Unemployment rate	Population change 1989-99
<b>Market Price Support</b>					
Support per ha UAA	1	0.557(**)	0.113(**)	-0.371(**)	0.199(**)
N	1069	1068	1069	963	896
Support per AWU	0.557(**)	1	-0.089(**)	-0.161(**)	0.116(**)
N	1068	1078	1078	972	900
<b>Direct Income Payments</b>					
Support per ha UAA	1	0.382(**)	-0.156(**)	0.209(**)	-0.028
N	1067	1065	1067	961	894
Support per AWU	0.382(**)	1	-0.191(**)	0.163(**)	-0.103(**)
N	1065	1065	1065	959	893

\*\* Correlation statistically significant at the 0.01 level (2-tailed).

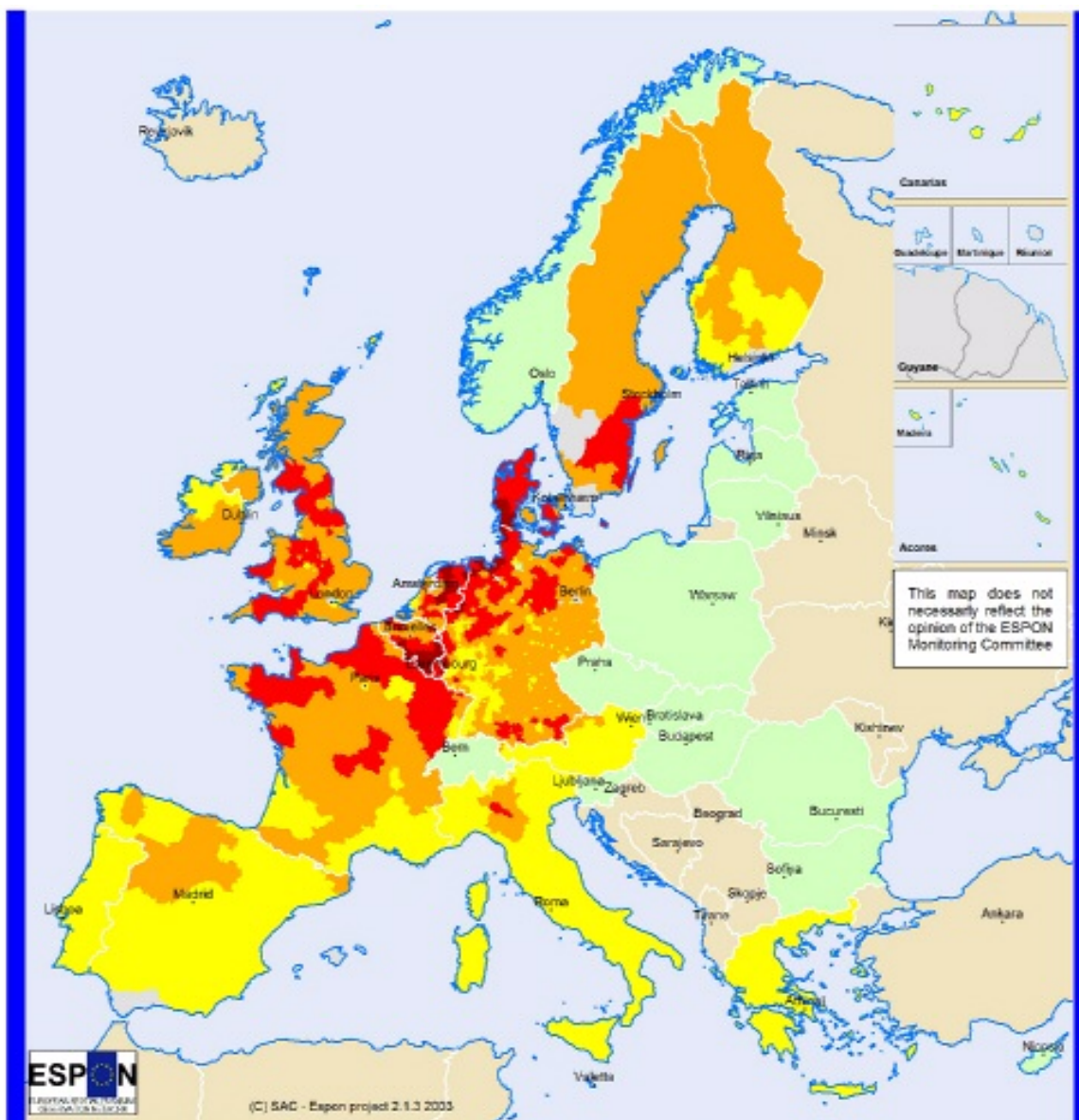
However, direct income payments tended to be higher in areas with a low GDP per capita, with high unemployment rates and falling populations. Thus, direct payments were distributed in a manner which

supports cohesion objectives. This supports the argument that the introduction of direct payments led to a more equitable distribution of support between regions of Europe by weakening the link between the level of aid to regions and their agricultural performance (European Commission, 2001c). However, direct income payments remain problematic for other reasons. Buckwell (1996) argued that the levels of payments have not been sufficiently linked to the income reductions associated with the lowering of commodity price supports. This has led in some circumstances to over compensation of some groups of farmers, as acknowledged by the Commission in Agenda 2000. Further, he argues that there is insufficient rationale to support an indefinite continuation of such payments for a once-off policy change.

Map 4.3, Map 4.4 and Map 4.5 confirm the distinct territorial incidence of pillar 1 support instruments showing separately Market Price Support, crop-related direct income payments and livestock related payments, all expressed per AWU.



**Map 4.3: MPS per AWU, 1999**

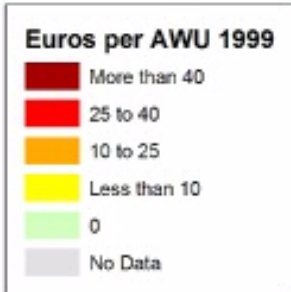


(C) SAC - Espo project 2.1.3 2003

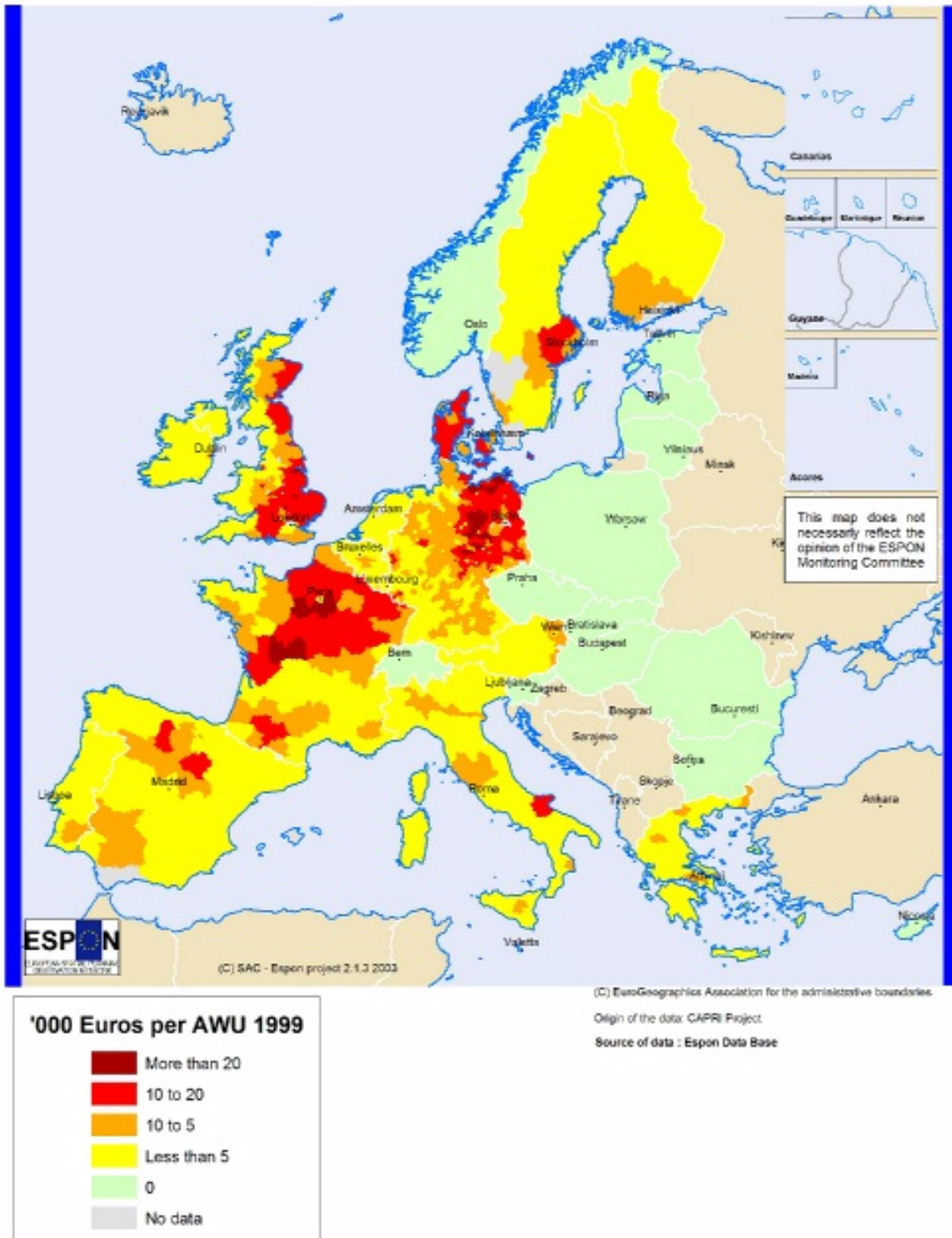
(C) EuroGeographics Association for the administrative boundaries

Origin of the data: CAPRI Project

Source of data: Espo Data Base

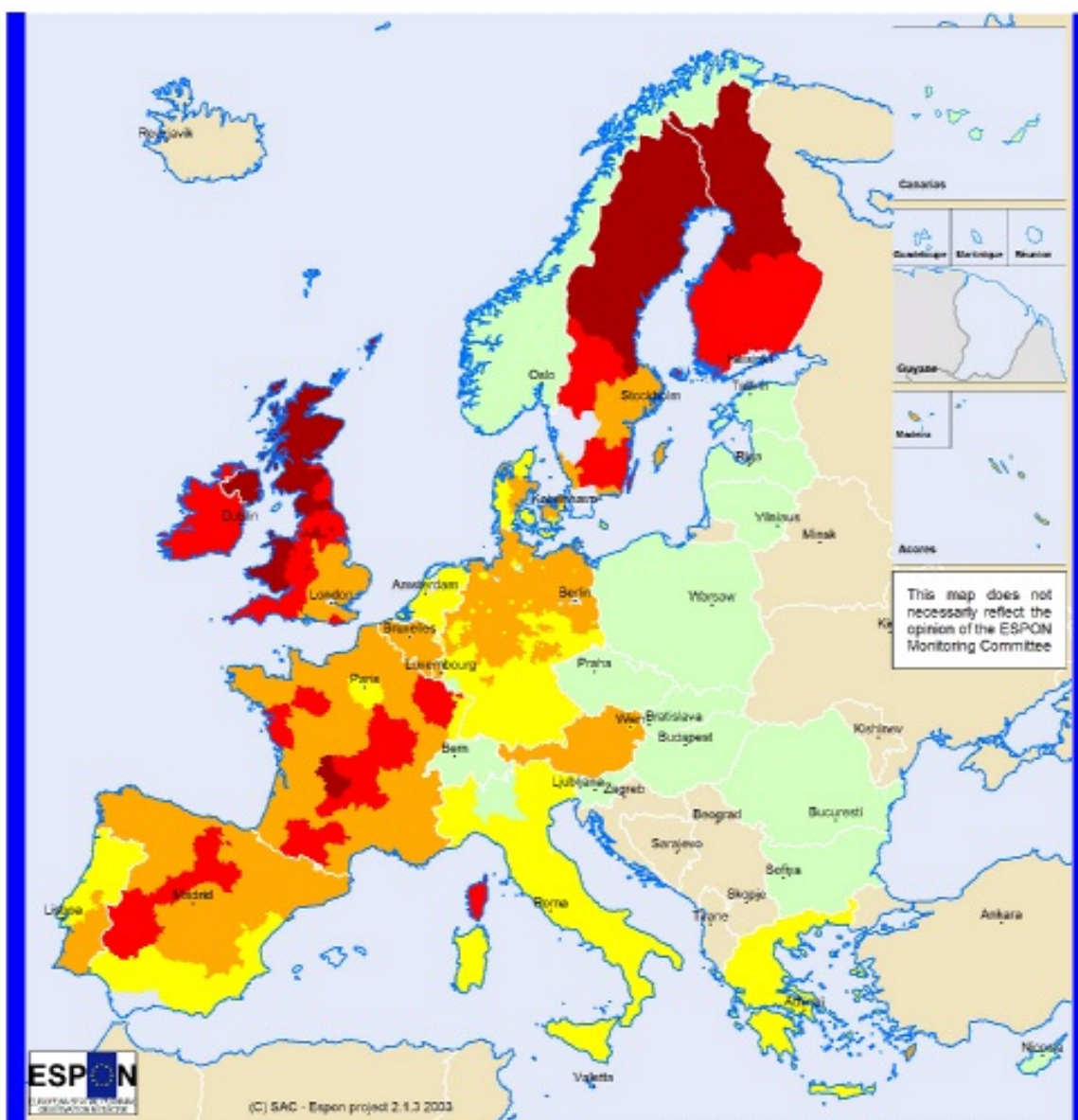


**Map 4.4: Direct income payments for crops by AWU, 1999**





**Map 4.5: Direct income payments for livestock by AWU, 1999**



**Euros per AWU 1999**

- More than 7500
- 2500 to 7500
- 500 to 2500
- Less than 500
- 0
- all others

(C) EuroGeographics Association for the administrative boundaries.

Origin of the data: CAPRI Project

Source of data : Espon Data Base

#### 4.2.2 New Member States

Most accession states have been preparing their agricultural sectors and policies for EU entry and CAP adoption by instituting CAP-like support systems, and seeking liberalised trade with the EU-15. The territorial aspects of agricultural and rural development policies in the New Member States (NMSs) are therefore complex, with significant differences between conditions in the early 1990s shortly after the start of transition to those expected in (say) the mid-2000s.

Policy data at NUTS3 level relating to the NMSs is more scarce than that available for the EU-15. However, some preliminary regression analysis was carried out to test whether the national agricultural policies of some NMSs in 1999 were consistent with economic and social cohesion.

**Table 4.3: Pearson Correlation coefficients between the level of Market Price Support accruing to NUTS3 regions and socio-economic indicators, selected New Member States**

	Support per ha UAA	Support per AWU	GDP per head	Unemployment rate
<b>Czech Republic</b>				
Support per ha UAA (14)	1	0.480	-0.722**	0.213
Support per AWU (14)	0.480	1	-0.688	0.106
<b>Hungary</b>				
Support per ha UAA (20)	1	n/a	0.396	-0.329
Support per AWU (-)	n/a	n/a	n/a	n/a
<b>Poland</b>				
Support per ha UAA (44)	1	n/a	0.083	-0.334*
Support per AWU (-)	n/a	n/a	n/a	n/a
<b>Slovakia</b>				
Support per ha UAA (8)	1	0.909**	-0.592	0.296
Support per AWU (8)	0.909**	1	-0.589	0.563
<b>All</b>				
Support per ha UAA (86)	1	0.659**	0.126	-0.106
Support per AWU (22)	0.659**	1	-0.380	-0.375

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The results in Table 4.3 show clear differences in the way MPS was distributed across regions of the NMSs. In the Czech Republic, support in 1999 tended to be higher in areas with a low GDP per capita and with high unemployment rates (Although the latter estimate is not statistically significant). In contrast, in Poland, support was higher in areas with lower unemployment rates. No statistically significant results were found in relation to the distribution of MPS in Slovakia and

Hungary. When considered overall, MPS payments in the four NMSs in 1999 tended to be higher in areas with a high GDP per capita and with low unemployment rates. In other words, as in the case of the EU-15, the policy of MPS did not support objectives of improving economic and social cohesion. Further discussion of the impact of agricultural and rural development policy in the NMSs is given in Chapter 6.

### **4.3 Pillar 2 Support**

Since the CAP was not originally designed as a cohesion instrument, it could be argued that the above findings relating to Pillar 1 are not surprising. In comparison, Pillar 2, often hailed as representing a fundamental departure towards a more integrated rural development policy, might be expected to be distributed more in line with cohesion objectives. To test this expectation, the relationship between the level of Pillar 2 support received by each NUTS3 region and GDP per head, unemployment rates and population change of each region was investigated.

The level of Pillar 2 support was estimated in two ways. Firstly, by the sum of the value of environmental subsidies and LFA payments *received* by farmers again derived from the FADN database apportioned down to NUTS3 level. Secondly, through the apportionment of national Rural Development *expenditure*, taken from Dwyer *et al.* 2002), in this case using FADN data as a means of distributing the country level totals between regions. Neither approach to estimating Pillar 2 support is entirely satisfactory – the first because it is based on sample data and only takes into account LFA and agri-environmental payments, excluding other Pillar 2 schemes; the second because it is based on budget figures rather than actual expenditures. However, using both measures together provides a robust basis for understanding the territorial impact of Pillar 2 policies. The methodologies used for the apportionment of these data to NUTS3 are described in Appendices.

Correlation analysis, summarised in Table 4.4, shows that, contrary to expectations, Pillar 2 support as represented by the FADN-derived payments to farmers is inconsistent with cohesion objectives, favouring the more economically viable and growing areas of the EU. Pillar 2 support based on apportioned Rural Development budget data appears to be more equitably distributed with a significant negative correlation coefficient between support per AWU and GDP per head but again a negative relationship between levels of support and unemployment rates is observed: higher levels of support are associated with lower unemployment rates.

**Table 4.4: Pearson Correlation coefficients between total Pillar 2 support and socio-economic indicators, 1999**

	Support per ha UAA	Support per AWU	GDP per head	Unemployment rate	Population change '89-99
<i>Based on FADN farm receipts</i>					
Support per ha UAA	1	0.740(**)	0.143(**)	-0.244(**)	0.048
N	1063	1062	1063	957	892
Support per AWU	0.740(**)	1	0.004	-0.181(**)	0.034
N	1062	1062	1062	956	892
<i>Based on appointed RD budget data</i>					
Support per ha UAA	1	0.366(**)	-0.040	-0.095(**)	-0.024
N	1063	1062	1063	957	892
Support per AWU	0.366(**)	1	-0.106(**)	-0.061	-0.013
N	1062	1066	1066	960	892

\*\* Correlation statistically significant at the 0.01 level (2-tailed).

The discrepancy between these measures could either be because LFA and agri-environmental payments are distributed more to richer areas while the remaining Pillar 2 measures are used more in poorer areas (see below), or because of a systematic difference between budgeted expenditure and actual payments received by farmers, with budgets underspent in poorer areas.

Various reasons have been proposed to explain why Pillar 2 instruments are not more supportive of the cohesion objectives of the EU. These include:

- differing national priorities,
- the uneven allocation of RDR funds, and
- difficulties co-financing RDR expenditure in poorer countries (Dwyer *et al.*, 2002)

AgraCEAS (2003) also argue that the requirement of Member State co-financing of Pillar 2 measures has influenced uptake of the different measures. It follows that, even allowing for the different natural production conditions and the high variation in agricultural structures, the impact of Pillar 2 measures will be differentiated across EU space.

While the results above are based on an EU-wide analysis, a similar pattern holds in some member states. For example, INEA (2002a) has mapped the regional distribution of product support in Italy and found a wide spatial variation, with the overall effect working clearly against cohesion objectives (p.238). Support per farm unit is highest in the Northern areas, notably the favoured area of the Po valley, and in some central regions, and is least in the poorer south.

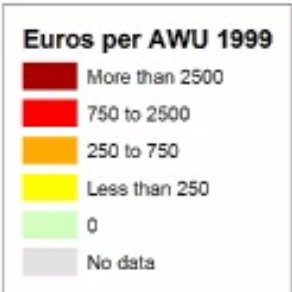
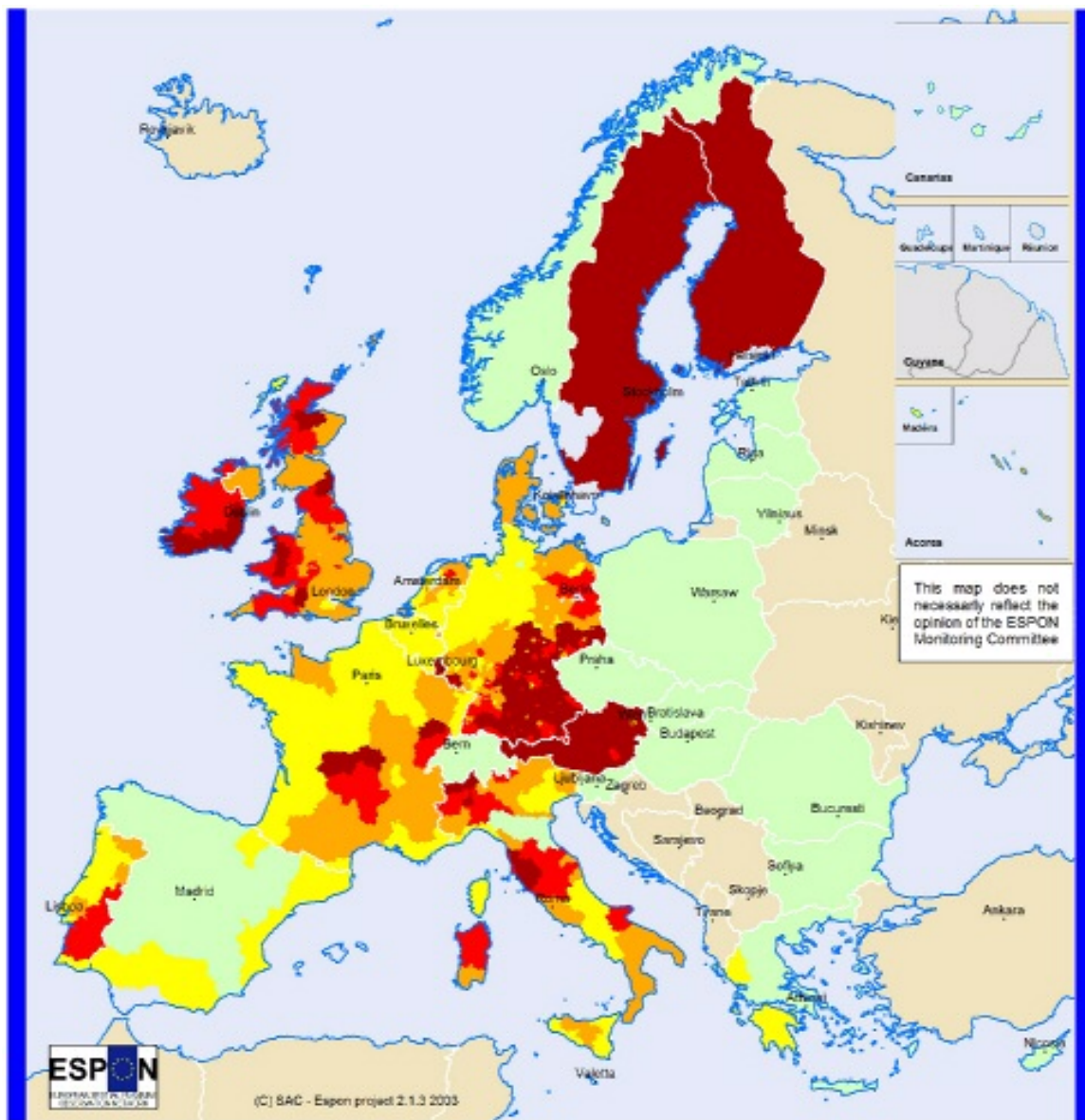
The changing nature and demands placed on rural areas means that the relationship between CAP support and prosperity of regions is

unlikely to stay constant. For example, Lafferty *et al.* (1999) showed that in the 1970's the southeast of Ireland was regarded as one of the more prosperous regions, in part due to its strong agricultural sector. At this stage it also received high levels of CAP support. By the 1990s, while still in receipt of above average CAP support, the region was no longer one of the most prosperous since its total economy has not adapted as well as other regions in Ireland. This highlights the limits of the analysis presented so far and the need to consider not only the incidence but the impact of CAP support (see Chapters 6 and 7).

Map 4.6 and Map 4.7 show the distribution of total Pillar 2 support on a per AWU basis.

Pillar 2 of the CAP comprises a number of quite distinct structural and rural development measures, as described in Chapter 2. For the EU as a whole, LFA and agri-environmental measures dominate Pillar 2 (Peters, 2002). However, the relative importance of different Pillar 2 measures varies widely between member states, reflecting amongst other things different national priorities and different national budget constraints. The territorial distribution of support through each of these categories is therefore considered separately in the following subsections.

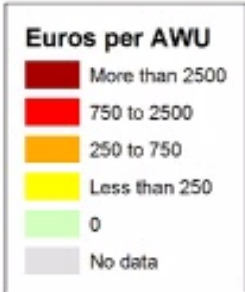
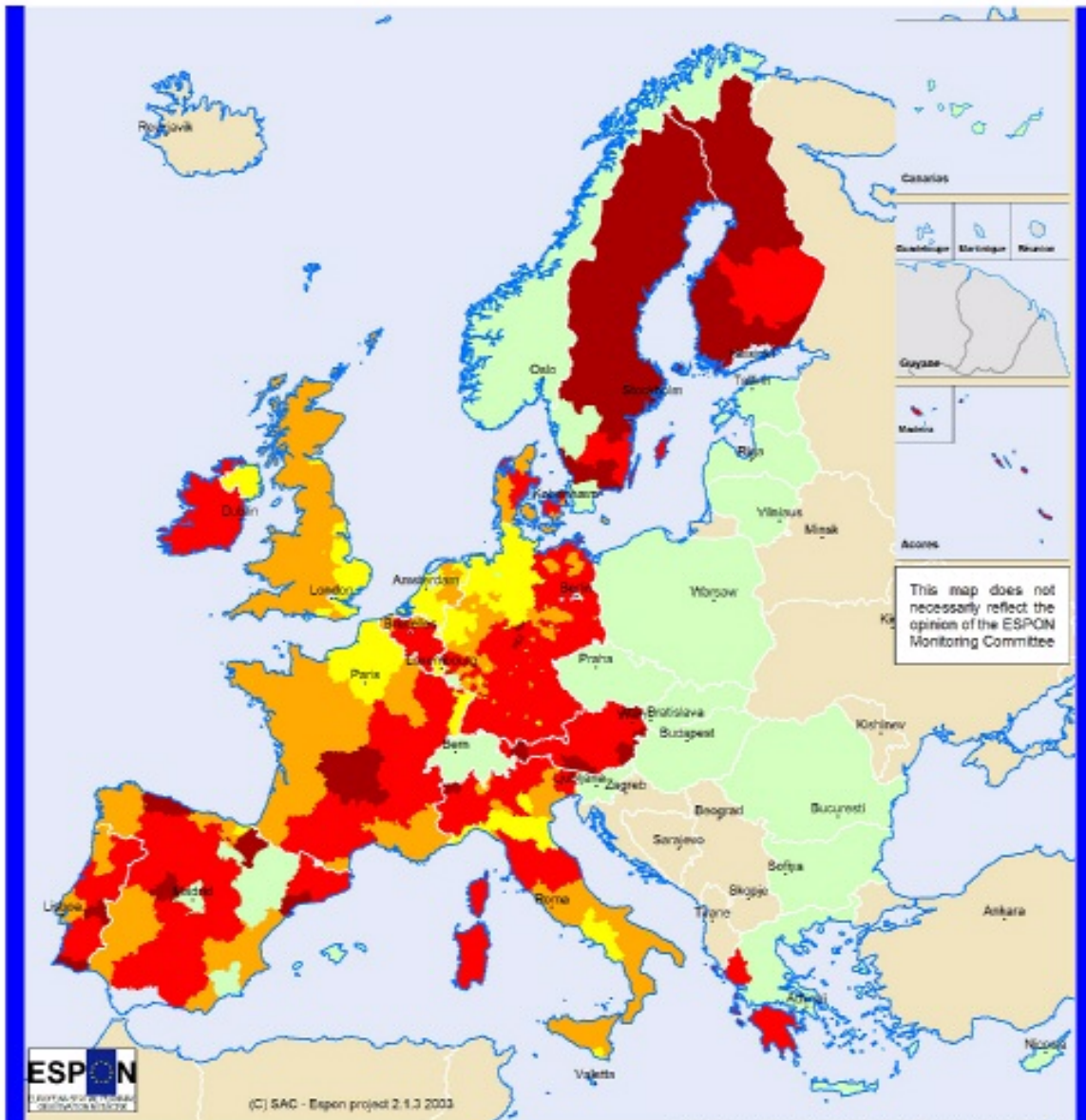
**Map 4.6: Total Pillar 2 support per AWU, 1999**



(C) EuroGeographics Association for the administrative boundaries  
 Origin of the data: Project 2.1.3 estimates  
 Source of data : Espo Data Base



**Map 4.7: Pillar 2 expenditure per AWU (from RDR budgets)**



(C) EuroGeographics Association for the administrative boundaries.  
 Origin of the data: CAPRI Project  
 Source of data : Espen Data Base

### 4.3.1 LFA Payments

Empirical analysis of the distribution of LFA support was based on data from the Special Report No 4/2003 concerning rural development: support for less-favored areas, together with the Commission replies<sup>30</sup> and apportioned to NUTS3 regions according to the method described in the Appendices.

Given the objectives of the LFA scheme, it was expected that the scheme would operate in a manner consistent with the economic cohesion objectives of the EU. In other words, LFA payments would tend to be higher in regions with lower per capita GDP and higher unemployment rates. Correlation analysis, however, found no statistically significant relationships between levels of LFA support and indicators of economic cohesion, although the signs of the coefficients were as expected (see Table 4.5). LFA support therefore is only weakly related to the indicators of social and economic cohesion. Both Peters (2002) and AgraCEAS (2003) discuss how the profile of different accompanying measures varies considerably between member states with certain richer northern States (including Finland, France and Luxembourg) prioritising the LFA scheme over agri-environmental, farm investment or early retirement schemes. This may explain why a stronger relationship with the cohesion indicators was not detected.

**Table 4.5: Pearson Correlation coefficients between level of LFA payments and socio-economic indicators**

	Support per ha UAA	Support per AWU	GDP per head	Unemployment rate	Population change '89-99
Support per ha UAA	1	0.955(**)	-0.011	0.043	-0.045
N	1063	1062	1063	957	892
Support per AWU	0.955(**)	1	-0.055	0.057	-0.037
N	1062	1068	1068	962	894

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 4.3.2 Agri-environmental Payments

As described in Chapter 2, the reforms of the early 1990s included the introduction of a number of accompanying measures, of which agri-environment schemes were the most notable. Quantitative analysis of the territorial incidence of support through agri-environmental schemes

<sup>30</sup> (available at [http://www.eca.eu.int/EN/reports\\_opinions.htm](http://www.eca.eu.int/EN/reports_opinions.htm))



was based on data from the FADN database showing the value of environment-related payments received by farmers. As previously, correlation analysis was carried out to assess whether the level of agri-environmental support is distributed in a manner consistent with EU cohesion objectives (see Table 4.6).

**Table 4.6: Pearson Correlation coefficients between level of agri-environmental subsidies and socio-economic indicators**

	Support per ha UAA	Support per AWU	GDP per head	Unemployment rate	Population change '89-99
Support per ha UAA	1	0.801(**)	0.146(**)	-0.240(**)	0.046
N	1067	1066	1067	961	894
Support per AWU	0.801(**)	1	0.017	-0.158(**)	0.014
N	1066	1069	1069	963	894

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results show that in 1999 higher levels of agri-environmental payments accrued to richer areas of the EU. In other words, the distribution of agri-environmental payments was not consistent with economic cohesion objectives. The findings reflect the fact that richer EU member states tend to prioritise agri-environmental objectives more than poorer regions. Sweden and Austria, for example, allocate over 50% of their total RD funding to the agri-environment measures (Peters, 2002).

The only national-level study identified which considered the consistency between agri-environmental schemes and cohesion objectives related to Ireland (Lafferty *et al.* 1999). In this case the authors argue that agri-environmental schemes are contributing to the achievement of the economic and social cohesion goals and helping to constrain tendencies towards abandonment of farmland.

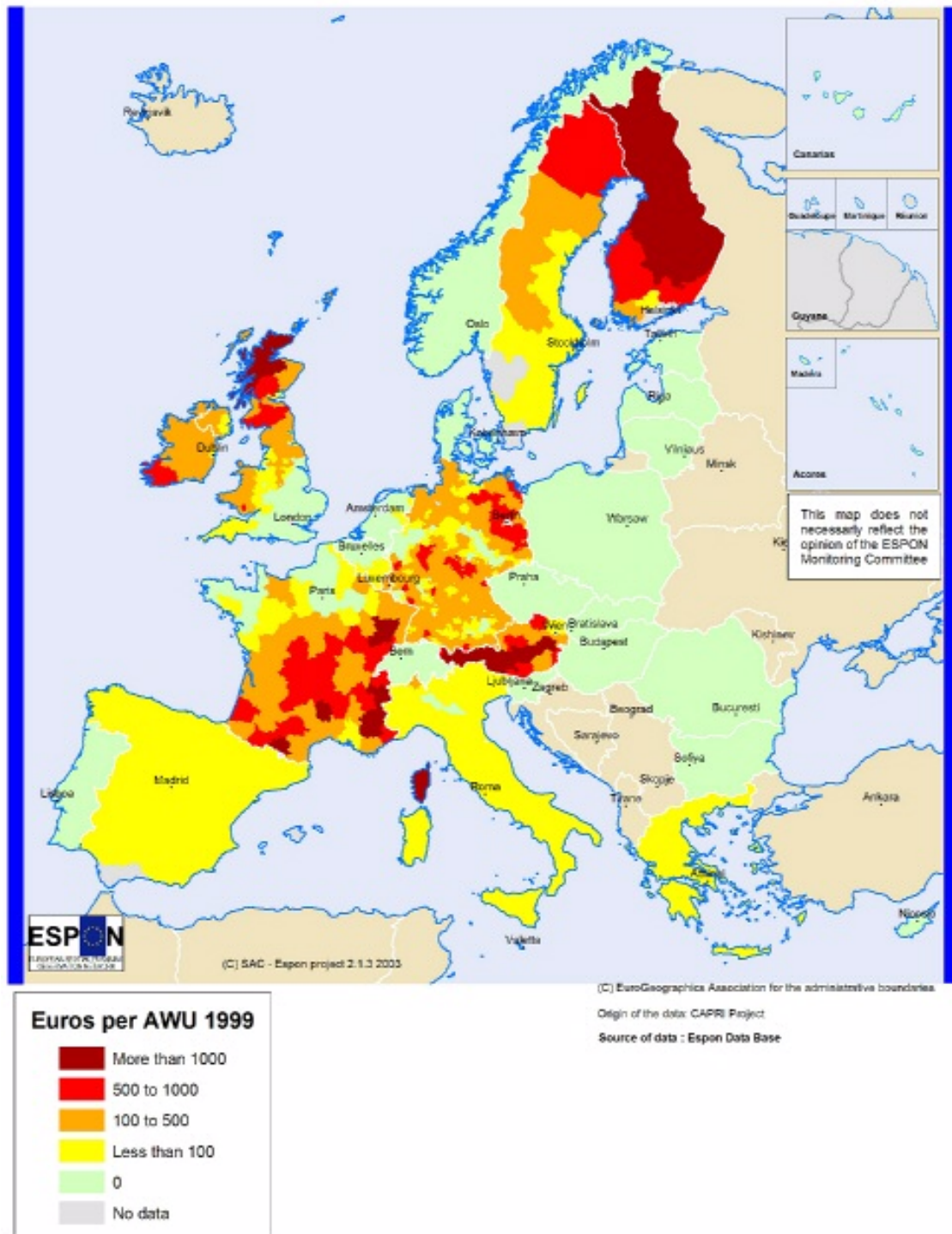
Map 4.8 and Map 4.9 show the distribution of these two elements of Pillar 2 of the CAP – LFA support and agri-environmental subsidies. Both are expressed on a per AWU basis. It can be seen that each tends to favour the northern European and Alpine regions of Europe, with less use in southern Europe.

### **4.3.3 Rural Development Measures**

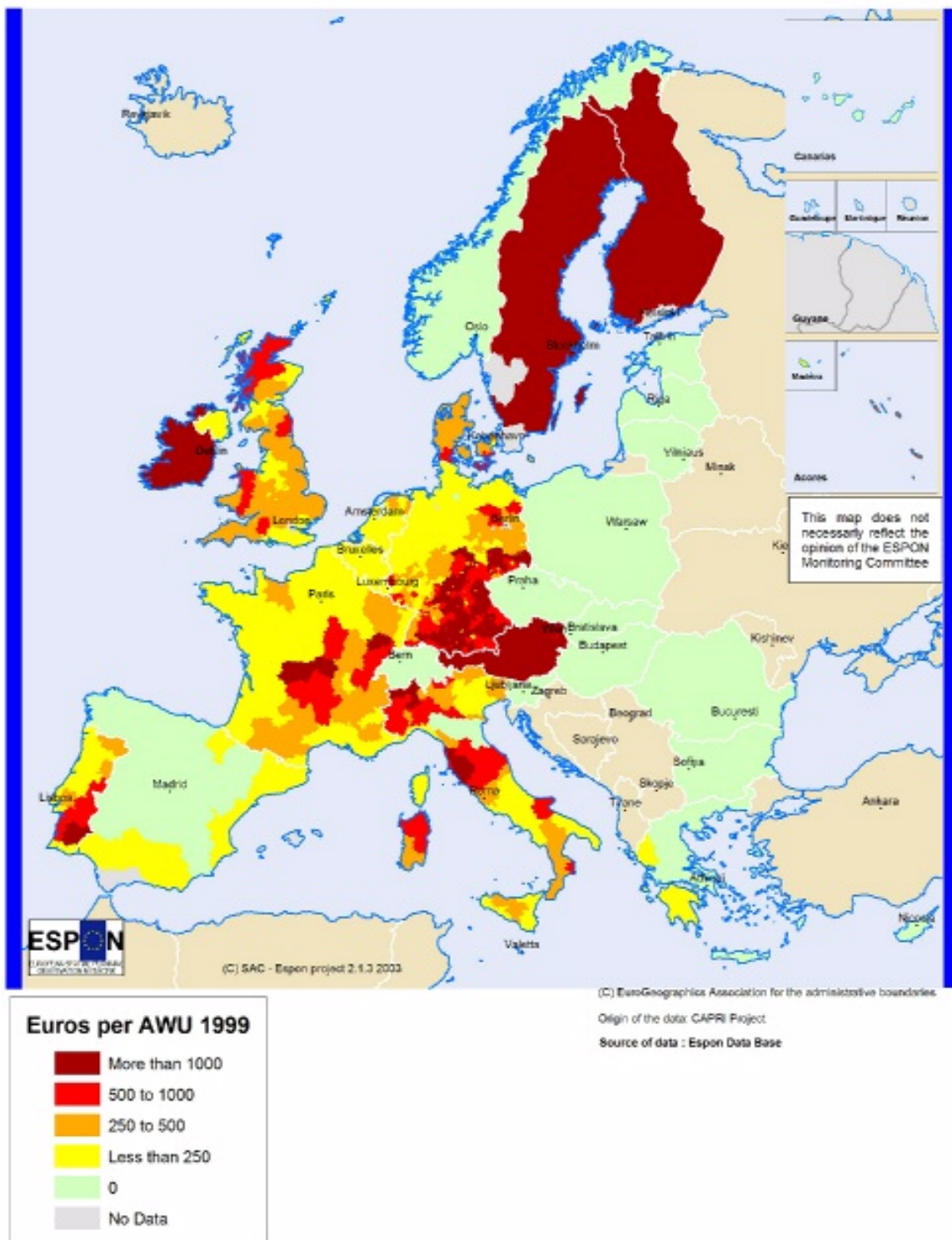
The extent to which any benefits of rural development schemes are territorially specific depends on whether programmes are themselves spatially oriented (such as Objective 5b and LEADER). However it was expected that that incidence (and thus potential impact) of structural

expenditures would be territorially focused even when the programmes are not, as the take up rates are usually variable across farming types or scales of farming, which in turn are regionally specific. Unfortunately statistical analysis of the territorial incidence of rural development measures was constrained by a lack of information on policy expenditures. Instead, Chapter 6 explores in detail the take up and impact of the LEADER scheme and other Article 33 measures.

**Map 4.8: LFA support per AWU, 1999**



**Map 4.9: Agri-environmental subsidies per AWU (derived from FADN)**



#### 4.4 The Influence of Farm Type

A key hypothesis developed by the project team during the earlier stages of the project was that **the impact of the CAP on regions in Europe is mainly visible through the CAP's impact on farm types** where farm types are differentiated by both economic size and enterprise mix.

Considering first the relationship between farm size and CAP support, it is widely recognised that CAP Pillar 1 support accrues disproportionately to intensive large-scale farmers. This is because to date it has been coupled (either directly or indirectly) to the level of output produced by a farmer. However whether this leads to support *per hectare* being higher for larger farms was harder to predict.

Table 4.7 reports the findings from a crosstabulation of Pillar 1 support per ha UAA against the average farm size in each region measured in European Size Units (ESUs). Information on the latter was taken from the FADN database apportioned to NUTS3.

Both CAP support and farm size were banded into five groups on the basis of quintiles. Thus, the regions with support levels smaller than or equal to the first quintile formed the first group, the second group comprised those NUTS3 with values above the first quintile and smaller than or equal to the second quintile, etc.. As previously, analysis focuses on 1999.

**Table 4.7: Crosstabulation of per hectare Pillar 1 support and farm economic size, 1999**

	Farm size classification	Farm size classification	Farm size classification	Farm size classification	Farm size classification	
Level of Pillar 1 support	Group 1 (Smallest)	2	3	4	Group 5 (Largest)	Total
Group (lowest)	89	45	47	9	20	210
	42.4%	21.4%	22.4%	4.3%	9.5%	100.0%
2	26	32	56	23	73	210
	12.4%	15.2%	26.7%	11.0%	34.8%	100.0%
3	32	39	51	41	46	209
	15.3%	18.7%	24.4%	19.6%	22.0%	100.0%
4	43	68	26	49	24	210
	20.5%	32.4%	12.4%	23.3%	11.4%	100.0%
Group 5 (highest)	20	26	30	87	46	209
	9.6%	12.4%	14.4%	41.6%	22.0%	100.0%
Total	210	210	210	209	209	1048

Chi-square tests of joint association confirm a relationship between the distribution of Pillar 1 support per ha and average farm size: regions with larger farms tend to receive higher levels of CAP support per ha UAA. In particular, Table 4.7 shows that in 1999, 42% of regions receiving the lowest level of support fell into the smallest farm size category while 64% of those regions receiving the highest level of support fell into the two largest average economic size categories.

Since large farms are mainly concentrated in continental Europe while small farms are more prominent in southern regions of the EU, the results reported in Table 4.7 suggest an uneven territorial distribution of Pillar 1 support across Europe. Differences in the distribution of support have also been detected within country-level studies. For example, in Germany there are large differences between different Laender regarding the average farm size. In 1997, farm size differs between averages of 24.7 ha in the so-called Alte Laender and 201.7 ha in the Neue Laender and between 17.9 ha in the Land "Baden-Wuerttemberg" (in the southwest) and 272.2 ha in "Mecklenburg Vorpommern" (in the northeast) (Statistisches Bundesamt, 1999). The role of CAP in regions with larger farm sizes, such as "Mecklenburg Vorpommern", is much higher than in regions with smaller sizes of farms, such as "Baden-Wuerttemberg".

The same crosstabulation analysis was repeated for Pillar 2 support. As shown in Table 4.8, the distribution of Pillar 2 support was found to be much less strongly related to farm size. In this case, a very large proportion (77%) of those in the highest support group fell into the smallest two farm size categories.

**Table 4.8: Crosstabulation of Pillar 2 CAP support measures in relation to farm economic size, 1999**

	Farm size classification	Farm size classification	Farm size classification	Farm size classification	Farm size classification	
Level of Pillar support	Group 1 (Smallest)	2	3	4	Group 5 (Largest)	Total
Group (lowest)	44	8	35	81	44	212
	20.8%	3.8%	16.5%	38.2%	20.8%	100.0%
2	10	12	43	80	67	212
	4.7%	5.7%	20.3%	37.7%	31.6%	100.0%
3	35	25	69	34	49	212
	16.5%	11.8%	32.5%	16.0%	23.1%	100.0%

	Farm size classification	Farm size classification	Farm size classification	Farm size classification	Farm size classification	
4	50	76	43	12	31	212
	23.6%	35.8%	20.3%	5.7%	14.6%	100.0%
Group 5 (highest)	73	91	22	5	22	213
	34.3%	42.7%	10.3%	2.3%	10.3%	100.0%
Total	212	212	212	212	213	1061

Note: Estimates of Pillar 2 support in this case were based on the apportioned funds for RD measures. The alternative, FADN based estimates of Pillar 2 support revealed a similar relationship.

The level of support not only varies by farm size but also between commodities and, in general, does not differentiate between production conditions or production methods. Taking this into account, Table 4.9 reports the results from an analysis of the relative importance of different factors on the distribution of support across Europe. The key explanatory variables investigated were farm size, land cover (as a proxy for the type of farm and productive capability of the land) and intensity of production as measured by Farm Net Value Added per ha.

**Table 4.9: Agricultural factors influencing the level of CAP support**

	Pillar 1 support per 100 ha	Pillar 1 support per 100 ha	Pillar 2 support (FADN) per 100 ha	Pillar 2 support (FADN) per 100 ha	Pillar 2 support (RDP) per 100 ha	Pillar 2 support (RDP) per 100 ha
	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	46.638	5.005	10.969	10.360	10.317	7.347
Average farm size	0.682	11.746	-0.079	-12.016	-0.055	-6.273
% Irrigated	2.425	4.804	-0.196	-3.417	-0.228	-2.998
% Rice	0.399	0.374	-0.052	-0.430	-0.017	-0.106
% Viniculture	-1.117	-4.850	-0.029	-1.092	0.081	2.331
% Fruit	-2.151	-4.552	-0.032	-0.590	0.137	1.922
% Olives	-0.331	-1.071	0.031	0.869	0.085	1.816
% Permanent pasture	0.227	3.667	0.005	0.671	-0.017	-1.827
% Assoc. crops	0.908	1.531	-0.011	-0.170	0.240	2.682
% Small parcels	0.906	8.882	-0.003	-0.219	0.046	2.966
% Natural vegetation	0.464	2.575	-0.093	-4.531	0.036	1.340

	Pillar 1 support per 100 ha	Pillar 1 support per 100 ha	Pillar 2 support (FADN) per 100 ha	Pillar 2 support (FADN) per 100 ha	Pillar 2 support (RDP) per 100 ha	Pillar 2 support (RDP) per 100 ha
Intensity of production	0.006	7.909	0.000	1.190	0.000	1.646
GDP per head	0.000	-0.353	0.000	-0.526	0.000	0.639
Unemployment rate	-1.911	-4.274	-0.293	-5.773	-0.321	-4.762
Population change	1.680	0.273	-0.155	-5.007	-0.145	-3.532

The results show that, controlling for other factors, average farm size is a significant factor in explaining the level of CAP support received by NUTS3 regions. In the case of Pillar 1 support, regions with larger farms get higher levels of support. In contrast, higher levels of Pillar 2 support tends to go to regions with smaller average farm sizes.

Turning to the land cover variables, as anticipated, these are shown to play a more significant role in explaining the distribution of Pillar 1 support than they do for Pillar 2 support. For example, six of the land cover types included in the analysis were significant factors in explaining Pillar 1 support per hectare UAA, as compared to only two which were significant at the 5% level in explaining Pillar 2 support per hectare UAA. In the case of Pillar 1 support the percentage of land accounted for by irrigated land and permanent pasture had positive and significant coefficients while negative coefficients were estimated for the percentage of land covered by vine or fruit. These findings reflect the varying level of MPS given for different agricultural products. The intensity of production is, *ceteris parabis*, positively related to Pillar 1 support levels but appears to be less important in determining the Pillar 2 received by a region.<sup>31</sup>

Importantly, the level of per capita GDP is shown to become an insignificant influence on the level of both Pillar 1 and Pillar 2 support once other factors are accounted for. In other words, the relationships shown in Table 4.1 and Table 4.2 above can, at least in part, be explained by the way in which a combination of farm-related variables vary across space. However, the coefficients associated with unemployment rates and, in the case of Pillar 2, population change continue to suggest that the distribution of support is not entirely consistent with higher-level EU cohesion objectives.

<sup>31</sup> Subsequent analysis found no statistical evidence of a relationship between changing intensity of production and support levels.

The review of other country-level studies supports the hypothesis that the impact of the CAP is highly differentiated by farm type. For example, in Austria, average support levels are highest for farms specialising in field crops that are concentrated in the lowlands, particularly in northeast of Austria. These farms have support levels at least 50% higher than all other types of farming (BMLFUW, 2000b). Similarly, Lafferty *et al.* (1999) show that in Ireland, the greatest impacts of the CAP occur in the southeast and southwest where, on average, farms are largest and there is a higher level of specialisation on dairying and cereals.

## 4.5 The Influence of Accessibility and Regional Type

### 4.5.1 Accessibility

Consistent with other ESPON projects, the distribution of CAP support in relation to three territorial scales of accessibility were considered – the macro or EU-wide level, the meso level and micro or local level. The indicators used to reflect these three territorial scales were as follows:

Scale	Source	Description
Macro	<i>Espon Database Version 2.3</i> (2.1.1_Timetomarket_Accessibility_by_rail_road_N3)	Accessibility time to market by rail and road, half-life (1000 minutes), weighted by GDP (1997)
Meso	<i>Espon Database Version 2.3</i> (2.1.1_Timetomarket_Accessibility_by_rail_road_N3)	Accessibility time to market by rail and road, half-life (25 minutes) weighted by GDP (1997)
Scale	Source	Description
Micro	Espon project 1.2.1. Mcrit. (ICON_access_transport_terminals_2001)	Accessibility by road to transport terminals offering a minimum service

In each case, the lower the value of the indicator, the greater the accessibility of the region.

An alternative peripherality indicator, developed for the European Commission by Schurmann *et al.*, was also used in the analysis to test the sensitivity of the findings. While focused like the macro indicator at the EU level, this indicator was based purely on road accessibility to EU-15 centre as opposed to market potential. In this case, the lower the value of the indicator, the more peripheral the region, and *vice versa*. One would therefore expect the two EU scale indicators, the macro and peripherality indicators to give rise to similar results but with opposite signs.<sup>32</sup>

<sup>32</sup> Different results will arise because the indicators focus on different aspects of accessibility. Personal communication with members of EPSON project 1.1.2 revealed other EU-level indicators of accessibility are being developed as part of the EPSON programme.



Correlation coefficients between the level of Pillar 1 support received and the accessibility of each NUTS3 region at each spatial scale are presented in Table 4.10 below.

**Table 4.10: Pearson Correlation Coefficients between level of Total Pillar 1 Support and Accessibility Indicators**

	Accessibility indicators <sup>1</sup>			Peripherality index <sup>2</sup>
	Micro	Meso	Macro	
Support per ha UAA	-0.374(**)	-	-0.251(**)	0.382(**)
N	1044	1047	1047	1047
Support per AWU	-0.119(**)	-0.035	-0.295(**)	0.232(**)
N	1046	1049	1049	1049

\*\* Correlation is significant at the 0.01 level (2-tailed).

<sup>1</sup> The lower the value of the indicator, the greater the accessibility of the region

<sup>2</sup> The lower the value of the indicator, the greater the peripherality of the region

The results suggest that the level of Pillar 1 support both per hectare and per AWU, tends to be higher in more accessible regions, and lower in more peripheral regions, at all spatial scales. All but one of the correlation coefficients is significant. From a spatial policy perspective, these findings confirm that although Pillar 1 measures are aspatial, they have very discernible spatial impacts.

Table 4.11 and Table 4.12 present the findings in relation to the spatial distribution of Pillar 2 support, the first based on FADN data, the second apportioned Rural Development Plan budget data.

**Table 4.11: Pearson Correlation coefficients between the level of Total pillar 2 support as estimated from FADN data and accessibility indicators**

	Accessibility indicators			Peripherality index
	Micro	Meso	Macro	
Support per ha UAA	0.244(**)	0.103(**)	0.017	-0.152(**)
N	1056	1059	1059	1059
Support per AWU	0.359(**)	0.259(**)	0.050	-0.189(**)
N	1055	1058	1058	1058

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Table 4.12: Pearson Correlation coefficients between the level of Total pillar 2 support as estimated from PRD budget data and accessibility indicators**

	Accessibility indicators			
	Micro	Meso	Micro	Meso
Support per ha UAA	0.191(**)	0.188(**)	0.189(**)	0.222(**)
N	1056	1059	1059	1059
Support per AWU	0.468(**)	0.389(**)	0.142(**)	-0.298(**)
N	1059	1062	1062	1062

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results in relation to Pillar 2 support are very different to those of Pillar 1. In particular, they suggest that the least accessible regions received, on average, higher levels of Pillar 2 support. Similarly, higher levels of Pillar 2 support were found in more peripheral regions again at all spatial scales, local, meso and macro.

Various hypotheses were considered by the project team in relation to the effects of the CAP on spatial patterns of development. For example, it was argued that changes in the levels of farm household pluriactivity may be more strongly associated with variables reflecting the strength of the local economy than the level of CAP support. Regression analysis backed this up with findings that the relationship between the level of CAP support received by a region and the extent of part time farming was not statistically significant.

#### 4.5.2 Regional Types

The distribution of CAP support across different types of NUTS3 regions in Europe was analysed using three different regional typologies:

- A regional typology developed by the OECD (1996a),
- the urban-rural typology developed by ESPON project 1.2.1, and
- the clustering typology developed as part of this project and presented in Chapter 4 of this report.

Table 4.13 considers the first of these typologies and indicates how the share of total support received by each OECD-classified region compares to their share of AWUs and UAA.

**Table 4.13: The incidence of CAP support by OECD region**

OECD region type <sup>1</sup>	% of total			UAA(%)	AWU (%)
	Pillar 1	Pillar 2 (FADN)	Pillar 2 (RD)		
Rural - leading	18	22	20	20	15
Rural - lagging	27	29	26	31	22
Intermediate leading	14	13	13	12	12
Intermediate lagging	18	18	21	20	23
Urban – leading	12	7	7	8	12
Urban – lagging	10	7	5	5	8
<i>Missing</i>	<i>1</i>	<i>4</i>	<i>9</i>	<i>3</i>	<i>8</i>
TOTAL	100	100	100	100	100

<sup>1</sup>Based on data supplied by OECD

The results show that, as expected, predominantly rural regions receive the lion's share of total CAP support with predominantly rural regions receiving 45% of total Pillar 1 support and either 50 or 46% of Pillar 2 support depending on whether the FADN or apportioned RDR fund data is used as the basis for the analysis. Rural regions receive a substantially higher share of both total Pillar 1 and Pillar 2 support than their share of the agricultural work force would suggest.

The findings when TPG 1.1.2's urban-rural typology is used are more surprising. Here, regions labelled as rural but with either high or medium human intervention account for only a small percentage of total EU agricultural area (4 and 6% respectively) and total agricultural workforce (7 and 4% respectively). Their share of Pillar 1 and 2 support is consistent with this, ie. very low. In contrast the categories labelled 'urban, high human intervention' and 'urban, low human intervention' account for the most significant shares of agricultural area and labour force and also receive the largest shares of both types of support. The fact that 44% of total pillar 1 support accrues to the urban, high human intervention category of regions is particularly noticeable (Table 4.14).

**Table 4.14: The incidence of CAP support by urban-rural type**

Regional type	% of total			<i>Total UAA</i> (%)	<i>Total AWU</i> (%)
	Pillar 1	Pillar 2 (FADN)	Pillar 2 (RD)		
Rural, high human intervention	4	5	6	4	7
Rural, medium human intervention	8	4	3	6	4
Rural, low human intervention	12	25	30	21	22
	% of total				
Urban, high human intervention	44	34	23	29	35
Urban, medium human intervention	1	4	5	2	6
Urban, low human intervention	30	28	32	37	25
<i>Missing</i>	1	0	1	0	1
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

<sup>1</sup>Based on regional typology derived by ESPON project 1.1.2

The final table, Table 4.15 considers the distribution of both Pillar 1 and Pillar 2 support, in this case in relation to the 10 regional types developed as part of this project. These categories show clearly how uneven support is across different farming types with the agricultural peripheral regions getting far less support than their share of UAA or AWU would suggest, while core farming regions and meso accessible regions receive far more than their proportionate shares.

**Table 4.15: The incidence of CAP support by EU-15 cluster type**

Cluster type	% of total			<i>Total UAA</i> (%)	<i>Total AWU</i> (%)
	Pillar 1	Pillar 2 (FADN)	Pillar 2 (RD)		
Agricultural Peripheral Regions	12	6	24	22	27
Northern Mixed-Economy Regions	18	19	12	17	10
Vineculture Regions	0	1	2	1	2
Sweden	2	6	3	2	1
Agricultural Tourism (Coastal) Regions	1	1	3	1	4
Macro-City Regions	0	1	1	0	1
Core Farming Regions	21	17	11	17	11
Southern Lagging Regions	2	3	8	4	9
Diversified Farming Regions	9	7	4	5	5
Meso-Accessible Regions	35	40	32	29	28
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

<sup>1</sup>Based on regional typology derived by ESPON project 2.1.3 (see Chapter 3)

Specifically in relation to the role of CAP and the diversification of rural areas, the project team hypothesised that **changes in the levels of farm household pluriactivity are more strongly associated with variables reflecting the strength of the local economy than the level of CAP support.**

In general, the literature review indicated that rates and patterns of farm household pluriactivity vary widely both between and within member states and the CAP ranks fairly low as a factor driving change (Cawley *et al.*, 1995; McDonagh and Commins, 1999; Edmond and Crabtree, 1994). Regression analysis backed this up with findings that the relationship between the level of CAP support received by a region and extent of part time farming was not statistically significant. Interestingly, the strength of the regional economy was found to be negatively related to rates of part time farming, in other words, part time farming was more prevalent in poorer regions of the EU than richer regions.

#### **4.6 Summary of Analysis**

The statistical analysis of indicators and data at NUTS3 level presented in this chapter suggests that the CAP has uneven effects across the EU-15 and that, at present, it is not positively contributing towards the goal of more balanced and sustainable development across European territory. Indeed in many instances (for example, Pillar 1 support per UAA, market price support, Pillar 2 support per UAA) the results suggested the distribution was such that it tends to benefit richer regions with lower unemployment rates and high population growth.

The findings relating to Pillar 1 of the CAP were perhaps to be anticipated. The policy instruments within Pillar 1 reflect strongly the agro-centric ethos that has dominated the CAP throughout its history and regression analysis showed the importance of farm size, commodity mix and intensity of production methods in determining the levels of Pillar 1 support received by a region. However, Pillar 2 support was expected to be distributed in a manner more consistent with cohesion objectives than was found.

The ESDP argues that recent CAP reforms may have served to promote a more diversified approach to agriculture and a more integrated policy approach to rural areas in general. Certainly, in relation to the Rural Development Regulation, it is for Member States to propose the breakdown of expenditure between these various headings. However, the findings presented here highlight that, although member states are more able to direct discretionary support measures towards territorial

priorities, this is still only a very minor part of the CAP and, to date, only limited use has been made to target support in this way (Mantino, 2003). In this respect, the rural development policies as defined in Agenda 2000 are fundamentally different from the policies and principles of the Structural Funds in general. While regional policy works so as to concentrate support on particular territories, the RDPs have lacked a strong territorial dimension.

Three reasons were identified as contributing to the observed territorial incidence of Pillar 2 support: differing Member State priorities, inadequate and uneven funding of measures, and the co-financing requirement. Richer and poorer countries are using different measures with unequal means. These issues are considered further in Chapter 5 along with a more detailed analysis of the territorial incidence and impact of specific Pillar 2 measures.

## **5 Adjustments and Impacts of CAP/RDP**

### **5.1 Introduction**

#### **5.1.1 Introduction**

Following the overall and quantitative approach taken in the previous chapter, this chapter analyses the impacts of the CAP and RDP in more targeted and qualitative terms. First, this section (5.1) discusses how farm households are encouraged, or are forced, to adapt their activities to situational changes, which, in addition to alterations in these policies, include developments in the relevant local or regional rural economy, and wider developments such as changes in the national economic, social and cultural context. This general discussion of structural adjustment in agriculture at the household level is then illustrated in Section 5.2 by means of a national case study, i.e. Ireland, where the effects of both the CAP and wider developments are analysed in terms of adaptations within conventional farming (Section 5.2.2), on-farm diversification (Section 5.2.3), non-farm employment (Section 5.2.4) and regional rural economies (Section 5.2.5).

The next main Sections discuss the impacts in the EU-15 of four selected groups of CAP/RDP policy instruments, i.e. agri-environmental programmes (Section 5.4), early retirement schemes for farmers (5.5), the Less Favoured Area scheme (Section 5.6) and the LEADER Community Initiative (Section 5.7). In general, the discussion relies on studies previously reported in the literature, and targets the territorial effects reported or implied in these publications.

Section 5.8 turns to the New Member States, first with some remarks on agricultural adjustment and diversification in three major accession countries (Section 5.8.1), followed by an account of the SAPARD Programme in general (Section 5.8.2) and of a case study in Poland (Section 5.8.3).

A final Section (5.9) draws some general conclusions.

#### **5.1.2 Influences on Farm Household Adaptation**

With rising surpluses in agricultural production of industrialised countries, agricultural ministries have broadened the orientation of their policies beyond the farm sector to include improvement of economic opportunities in rural areas, the sustainability of the natural environment and the provision of countryside amenity. This more or less common trend in European countries has been supported by the

assessment of farm household behaviour and analysis of an increasing involvement in diversification and off-farm activities. The widespread corresponding literature at the end of the 1980s and 1990s (e.g. Bryden *et al.*, 1993; Commins and Keane, 1995; Dax *et al.*, 1995; Bowler *et al.*, 1995) underpinned the momentum then achieved for the inclusion of pluriactivity issues in the policy debate.

At first, the attention focused on the (old) phenomenon of combining *agricultural and non-agricultural activities of farm households*. Taking the farm unit as starting point of observation, this combination of activities was first referred to as *part-time farming*, and then shifted to an understanding of *multiple-job farm households*. With more detailed studies on the scope, type, extent and tendencies of these combinations of activities and situations of farm households it was underlined that it was not the existence of different jobs alone but complementary activities of varying extent and at different places which was essential for farm households. The rise of the term *pluriactivity* relates to the diversity of farm households and multitude of adjustment strategies observed which meanwhile gained general acceptance, also among agricultural policy makers and (partly) interest groups.

A clear understanding of agricultural structural adjustment is fundamental for effective policy design in rural areas. Structural characteristics of the sector and changes in the structures have an important bearing on the viability of the rural economy as they effect the magnitude and distribution of income and economic activity and have spatial consequences. Because of different degrees of economic diversification in rural areas, the relative importance of the agricultural sector can vary dramatically by location between and within countries (OECD, 1998b).

There is hence a considerable variation among farm households in the share of their labour allocated to farming to non-farming activities, and to an even greater extent, in the dependence of farm households on incomes from agriculture. Despite a general growth in off-farm work over past decades there is a wide range of contextual factors, in particular region specific, social and cultural elements, shaping the actual adjustment patterns. Engagement in off-farm work can have an important role with regard to agricultural policy reform, cushioning farm households from income pressures. Many farm households, particularly in less-favoured areas, are dependent on a single or very limited farm production sources for their incomes. By enabling farm households to diversify their income sources, pluriactivity can contribute to diversification and lower exposure to farm-sector events. Of course, the regional economy and the availability of non-farm employment opportunities is largely impacting on these options.



Many factors such as region, the structural characteristics of the farm and the household, and the economic environment, in particular the opportunities for off-farm work, affect the total income of farm households. The inclusion of off-farm income narrows the dispersion of income by farm size and farm type, and the total income of farm households is therefore more equally distributed than that of farm income. The same holds true for the analysis of income differences by region. Basically they arise from regional variations in the economic size of farms, type of farming and rate of support for each commodity, and depend on how widely regions are defined. For example, income differences across regions in Denmark were less than across farm types or size classes. In Switzerland, the average farm income in lowland areas was 11% higher than the average of all farms while that of mountain farms was 21% lower. In general, these findings apply to the LFA regions of the European Union as well. As is the case across farms of different size and type, when non-agricultural incomes are taken into account, regional differences in income are reduced (OECD, 2003b).

The following section on farm household adjustment experiences is based on an exemplary presentation on the assessment of trends in Ireland and Poland. Similar tendencies, with regional variations might be found for other European areas. It highlights the most important changes with regard to farm household adjustment pathways, including the major shift towards pluriactivity, a highly expressed orientation on environmental outcomes and the close linkages to the rural (regional) economy.

When assessing the territorial impact of agricultural and rural development policies through an analysis of household adjustment strategies, it is necessary to keep a number of considerations in mind. First, policies will differ in the extent to which they have an explicit territorial dimension; measures for less favoured areas, for example, will obviously differ from market price supports. Second, there are territorial differences in resource endowments. Third, farm structures (farm sizes and distribution), infrastructures and capacity to adopt innovations are often poorer or more restrictive in those same regions where land resources are less productive. Fourth, there can be regional variations in historical, institutional or cultural factors and in the manner in which these underline farm traditions and practices. Attitudes to farmer retirement and property transfer show clear regional differences (Lafferty *et al.*, 1999). Fifth, layered over these structural features is a complex of dynamic economic and technological forces which seem to have universal application in the way in which they 'drive' the longer-term pathway of agricultural restructuring and adjustment. This longer-term trajectory is characterised by inelastic demand for agricultural products, constant downward pressure on farmgate prices, labour outflows from farming, enlargement of farm

business scale, polarisation of farm incomes between commercial producers and marginalised categories of producer, reliance on 'non-market' subsidies, and dependence of farm households on non-farm income sources (Commings and Keane, 1995). This last point bears out the increasing importance of economic development in rural areas, and the significance of non-farm enterprise and employment in facilitating farm household adaptations to the declining economic viability of farm businesses. It also signals the importance of enabling rural communities to access urban networks and inter-urban communication routes (McHugh and Walsh, 2000).

## **5.2 Ireland Case Study: Household Adjustment Strategies and Trends**

### **5.2.1 Introduction**

The exemplary presentation of the Irish case aims to illustrate farm household economic adjustment strategies in Ireland, in the context of structural change in the farm and rural economy and having regard to major policy measures. These strategies are considered under three headings:

- (i) adaptations within conventional farming
- (ii) diversification (but on-farm) from conventional patterns of production
- (iii) uptake of non-farm employment.

A fourth section reviews trends in employment and enterprise development in the regional economy, on the basis that the recent unprecedented growth in the Irish economy is a major factor influencing farm household adaptation strategies. The final part identifies the main lessons that have wider implications for agriculture and rural development policies.

The selection of Ireland for the analysis of the interplay of individual, local and regional factors was supported by the availability of region specific information and experience on structural changes. Moreover, some figures on the Irish farm and rural economy may be helpful in understanding the context and analysis, which follows. Primary agriculture accounts for 2.7% of national GDP, 6% of employment and 4.6% of exports (2002). The corresponding figures for the agri-food sector (primary agriculture plus food and drinks) are 8.5%, 9.0% and 8.3%. Of the country's agricultural area of 4.4 million hectares, 80% is devoted to grass (silage, hay and pasture). By far the greater part of production comes from livestock and livestock products. Beef and milk production currently account for 56% of agricultural output at producer prices.

## 5.2.2 Adjustments in Conventional Farming

### Scaling Up and Intensification

Rationalisation of production units through scaling up the size of farm businesses is a common mode of adjustment under modern farming conditions. For the period of 1991-2000 the size of the average farm in Ireland increased from 26.0 ha to 31.4 ha, while the scale of business per farm, measured in European size units (ESUs), grew from 11.6 to 20.7 ESUs. Correspondingly, the number of farms declined by 17% - from 170,600 to 141,500. The 1991-2000 data continue a long established trend of a declining number of farms with an increasing average farm size. When trends by size classes (in hectares) are compared, there is a clear contrast between the lower and higher ends of the scale. The number of farms under 20 ha declined by 46% during 1991-2000, while those over 50 ha increased by 23% (Crowley *et al.*, 2004).

Upscaling is related to the existing regional distribution of farm business size. A consequence of this is that the **farm size polarisation between regions is accentuated**. In 1991 the difference between the Objective 1 and Non Objective 1 regions in average ESUs per farm was 8.8 ESUs but this had increased to 13.8 ESUs by 2000 despite higher rates of increase in the Objective 1 region. Regions differ in the degree of intensification in farming with clear gaps evident between those in the West/Northwest and the other regions.

### Land Renting

Traditionally, scale enlargement was accomplished through farm amalgamation, by purchase or by renting. During the 1990s, however, the amount of land coming on the market declined considerably while its price increased. By contrast, the amount of land rented-in expanded. Apart from the contraction of the land market, there were other factors responsible for this expansion. Early retirement pensions were payable to farmers on condition that, *inter alia*, they transferred their holdings by long-term lease to family (or non-family) members. There is also a rental income tax exemption for land leased out on a long-term basis which also encouraged more farmers to opt for land leasing arrangements.

Between 1991 and 2000 the amount of land rented-in increased by 51%, or from 12.5% to 18.7% of the total stock of agricultural land. Nearly one third of all farms rented-in some agricultural land in 2000, compared to just over one-fifth in 1991.

Generally, renting-in of agricultural land is related to the larger and more commercially oriented farms in the east and south. By contrast

the lowest rates of renting-in are in the poorer land quality areas especially along the west coast (Border West, West, Mid-West and Southwest). However, while a north-west to a south-east gradient of low to high renting is evident, the pattern is complex. The areas with the highest percentages of farms renting land are where specialist tillage and dairying enterprises are most prominent.

### **Labour Reduction**

The 1990s saw a continuation of the long-term trend towards the reduction of labour on farms and to a lower labour intensity agriculture. There is little evidence of regional variation in this trend but labour intensities are somewhat lower in the more commercial farming areas (non objective 1), where underemployment is less likely and mechanisation is more advanced.

Decline is observable not alone in the numbers of persons contributing labour but in the amount of labour supplied by the workers. Nationally, the number of persons declined by 17.5% between 1991 and 2000, with little variation by region. Annual work units in the same period fell by 32.3%, again with no major regional differences.

### **Farm Enterprise Change**

The decline of 17% in the number of farms nationally during 1991 – 2000 was not spread evenly over holdings with different enterprises. The largest percentage decline (36.7%) occurred among “**specialist dairying**” farms, especially the smaller farms in this category. This trend is of considerable economic significance as it is on these farms that the largest gross margins are achieved. By contrast, there was a slight increase (0.5%) in the number of “**specialist beef production**” farms which includes farms with the smallest average gross margins. Specialist tillage holdings had a relatively low rate of decline and specialist sheep farms declined at approximately the national average figure. Regionally, the switch away from dairying was most pronounced in the western and border regions, which include those areas with the weakest tradition in dairy farming.

Ireland’s agriculture is based predominantly on livestock farming, especially beef and milk production but there are clear regional differences in the distribution of these enterprises. About 59.5% of farms in the Objective 1 region are engaged in specialist beef production, with only 10% in dairying. In non-Objective 1 region 28% are in dairying.

The shifting relativities between dairying and beef production – especially the suckler cow enterprise – can be seen from the changing ratios of other cattle to dairy cows in each of the regions which show a regional pattern.

The increase in the ratio of other cattle to dairy cows was somewhat greater in the Non Objective 1 areas than in the other regions; specialist beef farms increased at a faster rate in the former. Nevertheless, the Southwest remains a comparatively strong dairying region and dairy farms generally are still the largest production units in economic terms. Nationally, in 2000, specialist dairy farms had an average of 45.8 ESUs – more than double the national figure. Also, dairy farms had an average of 1.07 ESUs per ha, compared to 0.39 ESUs per ha on beef farms. Clearly enterprise shifts have favoured the southern regions– where dairying decline has been slower and increases in other cattle relatively greater.

### **Farmer Retirement**

Following the 1992 CAP reforms an early retirement scheme for farmers was introduced in Ireland in January 1994. Under the scheme farmers aged between 55 and 66 years are eligible to participate if they have practiced farming as their main occupation for the preceding ten years. Unlike previous retirement schemes the level of guaranteed pension payments were sufficient to stimulate a high level of participation. Over the first five years almost eight percent of all farmers had participated (Gillmor, 1999). Most significantly, there was a very distinctive spatial pattern to the adoption of the scheme, which has persisted to the present, with the highest levels in the more prosperous farming regions where there is a substantial number of trained young farmers who qualify as suitable transferees. With a less favourable resource base, farm structures and demographic situation in many parts of the west and northwest the level of adoption has been much lower (Laffery *et al.*, 1999).

### **Reliance on Direct (Non-Market) Payments (DPs)**

The influence of DPs on farm incomes increased significantly in the aftermath of the EU CAP reforms of 1992. Many aspects of the timing of the DPs are left to the discretion of the Member States so that they may be delayed or brought forward, with a consequent bearing on farm incomes in any particular year. In 1992, the last year before CAP reforms, DPs accounted for just over 30% of average family farm income. This had increased to 60% by 1996 and to 90% by 2002 (Frawley and Phelan, 2002). Their impact was strengthened by the provisions of Agenda 2000, but their proportionate contribution to family farm income is also influenced by changing levels of producer prices.

DPs can account for more than 100% of farm income when market-based output is not sufficient to cover total costs. In 2000, on cattle and sheep farms, DPs represented about 120% of family farm income. The concept of DPs as a proportion of income has not had the same

relevance for dairying as for the other major systems as these payments are not used as a mechanism under CAP for supporting dairy farm incomes. Consequently DPs account for only about 20% of farm income on specialist dairy farms (Connolly *et al.*, 2001:8).

Regionally, the impact of DPs on family farm income is highest in the Border counties, the Midlands and the West, where they constitute the greater part of farm income (Table 5.1). These are the regions in which cattle rearing and sheep are predominant enterprises.

**Table 5.1: Direct payments as a percentage of family farm income**

Region	1996	1997	1998	1999	2000	2001	2002
Border	78	78	97	106	89	93	119
Midlands	73	82	90	85	91	89	101
West	78	74	86	108	91	88	118
East	61	61	71	76	67	63	95
Mid West	43	48	62	67	72	64	72
Southeast	55	57	58	61	57	63	79
Southwest	39	47	52	53	45	52	71
State	59	62	69	74	68	72	90

Source: Teagasc National Farm Survey, various years.

### 5.2.3 Non-Farm Employment and Income Sources

#### Importance of Farm Work

The Census of Agriculture asks farm holders to state the degree of importance that farm work as an occupation holds for them. Three categories are specified: sole occupation, major occupation, or subsidiary occupation. In 2000, the distribution nationally was as follows (with corresponding figures for 1991 in brackets): sole – 55.7% (73.4%); major – 13.9% (5.7%); and subsidiary- 30.4% (20.8%). While there was little variation among the NUTS2 regions county level data show higher percentages of sole occupation farm holders in the larger farm areas of the South and East.

Between 1991 and 2000 the major shift was from “sole” to “major” occupation status (Table 5.2). The change to “major” status was least pronounced in the west but in 1991 the West region had already a relatively high percentage of farmholders in the category and maintained this distinction in 2000. The changes recorded are influenced not alone by farming conditions but by the distribution of non-farm employment.

**Table 5.2: Importance of farm work: changes (%) 1991 – 2000**

Region	Sole Occupation	Major Occupation	Subsidiary Occupation
Border East	- 37.7	+ 143.1	+ 13.2
Border West	- 37.3	+75.1	+ 19.1
Midland	- 36.8	+ 188.0	+ 24.0
West	- 37.8	+ 55.2	+ 28.8
Dublin	- 45.3	+37.8	- 41.1
Mid-East	- 33.4	+ 85.4	+ 3.8
Mid West	- 37.2	+ 127.4	+ 28.1
Southeast	- 34.6	+ 200.4	+ 20.0
Southwest	- 37.6	+ 106.3	+ 26.3
Objective 1 region	- 37.5	+ 85.4	+ 23.0
Non Obj. 1 region	- 36.3	+ 124.4	+ 19.3
State	- 36.9	+ 101.6	+ 21.4

Source: Census of Agriculture 1991 and 2000

### **Off-Farm Employment**

The data in Table 5.2 only provide an indication of the diminishing importance of farm work; they do not give a direct account of the movement from farming to other occupations. Data from the Teagasc (The Agricultural Research and Advisory Authority) annual National Farm Survey (NFS) show the trend to off-farm employment among farmholders and their spouses/partners. Results for 2002 indicate that on 48% of farms, either the farmer and or spouse had another occupation. For farmholders separately the figure was 35%. Since the early 1990s the trend towards off-farm employment has been gradually upwards. Its extent varies significantly by system of farming, with dairy farmers being much less likely (12%) and cattle rearing farmers more likely (49%) to combine farm and non-farm work.

Farmers with other occupations tend to have smaller farms – 27 ha on average – with fewer livestock and lower stocking density that those without off farm jobs. Direct (non-market) payments make up a higher percentage of their family farm income, and they have lower incomes from farming. The National Farm Survey data show regional variations in off-farm employment (Table 5.3). The incidence of part-time farming among farmholders is highest in the West, Mid-west, Midlands and the Border region (which extends to the north-west).

**Table 5.3: Off-Farm sources of income: Farm holder and/or spouse, 2000**

Region	Holder and/or spouse	Holder	Spouse
	%	%	%
Border	41.9	32.3	21.4
Midlands	54.9	39.1	25.7
West	56.4	48.6	28.1
East	38.4	22.5	22.0
Mid-west	54.0	37.0	30.2
South-east	34.9	18.6	21.3
South-west	38.2	19.5	24.6
Total	45.0	32.7	23.0

Source: Teagasc National Farm Survey 2000, Tables 7E and 14E

### Non-Farm Income in Farm Households

The national Household Budget Survey (HBS) conducted on a representative sample of private households every five to seven years, provides information on all sources of income to a household – as well as on household expenditures. The latest HBS relates to the period June 1999 to July 2000. In the HBS “farm households” are defined as those where the head of the household:

- (a) is a gainfully occupied farmer, or
- (b) is a retired farmer with at least one gainfully occupied farmer in the household.

This definition does not include other households involved in farming (e.g. where farming is a subsidiary occupation of a head of household who has a main occupation outside farming). Table 5.4 shows the contributions of the major sources of “Direct Income” to rural farm households. These data are not available for regions.

**Table 5.4: Components of Direct Income\* in farm households**

Source	1987	1994	2000
	%	%	%
Wages/Salaries	29	35	48
Farming	59	58	44
Other	12	7	8
Total Direct Income <sup>1</sup>	100	100	100

\*Employment and other income but excluding state transfers

Source: Household Budget Survey 1999-2000

Wages and salaries accounted for 48% of Direct Income in farm households in 2000, compared to 29% in 1987. The increase in this proportion between 1994 and 2000 is particularly remarkable, and coincides with the so-called “Celtic Tiger” period of growth in the Irish economy (Commins, 2003).



When considering income relativities across different categories of household, it is more appropriate to refer to Disposable Household Income [DHI] obtained by adding state income transfers to Direct Income (to give gross household income), and subtracting direct taxation payments. On this basis, Table 5.5 compares the 2000 position in farm households with that in "rural non-farm" and "urban" households

**Table 5.5: Household income relativities, 2000 (State=100)**

Category of Household	Direct Income	State Transfers	Gross Household Income	Direct Taxation	Disposable Household income
Farm	97	83	95	57	103
Rural Non-Farm	79	109	82	69	85
Urban	110	98	108	119	106
State	100	100	100	100	100

Source: Derived from Household Budget Survey 2000

For farm households, both Direct Income and Gross Household Income were close to the State average and higher than in the rural non-farm category. Furthermore, the operation of the national taxation system favored farm households (because of lower personal incomes, see below) with the result that Disposable Household Income on farms exceeded the State average and came close to the Urban average.

This analysis, however, ignores household differences in the number of persons who are economically active and thus contributing to household income. Farm households have more persons, on average at work than other categories of households. When account is taken of this, by dividing direct incomes from employment (including income from farming) by number of persons at work, it turns out that the relativities between categories of household change substantially. The ratio (to the State average 100) in respect of disposable income for farm households drops to 73 while those for rural non-farm and urban households rises to 90 and 109 respectively (Commins, 2003).

It would appear that over time, and with general economic growth, rural farm households have acquired more earners than other types of households. However, taking into account their low per person earnings and their low absolute levels of direct taxation, it seems that their work – whether in farming or outside it yields relatively low incomes.

Additional analyses have been undertaken comparing farm incomes with the levels of earnings outside the farm (Commins, 2003). These show that family farm income per family labour unit on full-time farms has, since 1987 at best, remained constantly at 20% lower than average male earnings in manufacturing industries. Even in "good

farming years”, farm incomes did not reach 90% of industrial income. In this context and with employment levels generally approaching “full employment” status, it is clear that workers in farming households, except on the more commercial farms, will be “pulled” towards the non-farm labour market.

#### **5.2.4 Rural Enterprise and Employment**

This section refers to “the broader rural economy” and reviews trends at macro level with special reference to the record of state-sponsored agencies in creating employment so as to offset labour losses in farming. With the unprecedented growth in the economy generally over the past decade, the concern for “balanced regional development” came strongly into focus. This, coupled with the launch of a national spatial strategy, indicated that with the national economy reaching near-full employment there has been a new impetus towards territorial development in the rhetoric of official policy. The question that arises is: what has been the experience of the more rural regions in regard to enterprise and employment during the period of national economic growth in the 1990s?

##### **Regional Trends in Incomes**

The Gross Value Added (GVA) index points up the poorer regions which are the Border counties, Midlands and West, which together constitute Ireland's Objective 1 region. When employment income per person at work is considered, these regions improve their relative position but, surprisingly, the standing of the Southeast worsens (as does Dublin's). Data on Disposable income per capita show the Midlands and Southeast to have the lowest rates of increase between 1995 and 2000 and, on the criterion as an index for 2001, to be the two most disadvantaged regions in the country. The similarity of these two regions with the Border and West regions lies in their comparatively high dependence on primary production.

In the ‘boom years’ up to mid-2001 two regions combined, Dublin and the Mid-East gained 45% of the extra employment created. All regions shared in the gains but the rates of employment growth were weakest in two of the country's most rural regions—the Border and Midlands. In the third predominantly rural region, the West, the rate of employment growth (+48.7%) greatly exceeded the national average increase of one-third but was most heavily concentrated in the sub-region centred on Galway city.

##### **Employment in Rural Areas**

Until the small-area returns from the 2002 Census are examined in detail, there can be no definitive assessment of the intra-regional disposal of recent employment growth. However, judged on the basis of

trends between 1991 and 1996 – before the significant expansion of the late 1990s - the spatial distribution of growth is likely to have been quite widespread (Commins and McDonagh, 2002). A summary of the basic facts for 1991-1996 is follows:

- The combined 155 Rural Districts in the state had a net loss of 22,400 persons at work in the primary sector, but this was offset by a gain of 100,230 workers in other sectors.
- Only a minority of Rural Districts, mainly in the West and in dispersed upland areas, did not have sufficient non-farm employment growth to counter losses in the farm workforce.
- Most (88%) of the States 3,421 District Electoral Divisions had an increase in the number of self-employed outside the primary sector.
- When analysed by size of place the number at work increased for all categories of place, although places below 1,500 persons had the lowest rates of increase

### **Promotion of Enterprise and Employment by the Main State Agencies**

Among the States programmes for supporting enterprise and job creation, foreign owned enterprises have been the main generators of employment, and can account for more than half of the jobs established in enterprises supported by State Agencies. Relevant data are as follows:

- The longer-term trend (1981-1998) in the establishment of State-funded **enterprises** confirms a significant increase but the East region (Dublin and hinterland counties) gained very substantially, doubling its share of new foreign firms between 1981-86 and 1993-98.
- In the case of **new indigenous firms**, the regional distribution has remained more balanced, although the East again has increased its share.
- The East also gained disproportionately in the number of **gross** job gains. The East accounted for just under half of the expanding numbers of jobs in 1993-98, compared to one-third in the 1980s. The East also increased its share of gross job creation in indigenous firms.
- With regard to the locational distribution of employment and enterprise **within regions**, there is a definite trend towards centres of over 5,000 persons.
- The outcome of these centripetal tendencies in grant-aided enterprises is that by the end of the 1990s about one-sixth of firms assisted by the main State agencies were located in the more rural areas (places below 1,500 persons). By contrast, over

half were in the centres of 10,000 persons upwards. Employment creation patterns mirror those for enterprise development.

- Related to these trends is the fact that the fastest growth sector has been the traded and financial services. These expanded employment by 50,000 in 1991-2000, with over two-thirds of this employment being provided by foreign firms, predominantly located in the city regions.

### **Employment Promotion by Locally Based Agencies**

The evidence presented above shows that, while all regions benefited from the economic boom of the 1990s, there has been a clear tendency for enterprise and jobs supported by mainline agencies to become located in the eastern part of the country and, within regions, in the larger centers of population. Two programmes are expressly concerned with the promotion of SMEs at local level. These are the County Enterprise Boards (CEBs) programme and the LEADER programme.

The CEBs commenced activities in 1993/4 having been set up to cater specifically for micro-enterprises. By 2000, 34 Boards had approved a total of 14,000 projects, one third of which were in the Objective 1 Region. CEB-assisted new enterprises and expansions resulted in the creation of 21,500 full-time jobs and 4,800 part-time jobs. When counties were classified by degree of 'rurality', analysis of CEB records show job provision with a clear bias in favor of more rural counties (Table 5.6). Highly rural counties, with 16% of the States population, accounted for 25% of grants drawn down and jobs provided.

**Table 5.6: Grants drawn and jobs created in CEB enterprises, 1993-2000, in counties classified by degree of rurality**

	High*	Medium*	Low*	All
Grants Drawn %	25.1	30.6	44.3	100
Jobs Created %	24.5	32.9	42.6	100
Population %	16.0	26.9	57.1	100
Jobs per 1,000 pop.	9.1	7.3	4.4	100

\*Based on population distribution by size of place. 'High rurality' is equated with at least 75% of the population residing outside centres of 3000+ inhabitants. 'Low rurality' corresponds with less than 50% residing outside such centres.

Source: Commins and McDonagh 2002

The LEADER programme has been an important catalyst for rural development because of its accessibility at local level, and its accountability to local people through its partnership structures. The second phase of the programme ran from 1995-1999, and involved 34 local groups. This phase had covered 9,595 projects, creating 8,357 full-time job equivalents distributed over several categories of activities. Three categories are of relevance here (i) Rural Tourism, (ii) Small firms, craft enterprises and local services, and (iii) Agriculture, forestry and fishing which together account for 4,324 of the total

projects undertaken by the local groups: 55% were in rural tourism, 30% in small businesses/services, and 15% in agriculture forestry and fishing.

As in the analysis of CEB activities, LEADER groups were classified into three categories, again on the cases of the degree of rurality of their catchment areas. There is a clear gradation from 'high rural' to 'low rural' in the amount of funds allocated per 1,000 population to LEADER groups. Correspondingly, there were clear differences between the different categories of rural area as regards expenditures and projects undertaken per 1,000 population, except in activities under 'agriculture, forestry and fishing'. Seemingly in the more rural areas, tourism and small businesses development offer most potential to LEADER groups.

In relation to the geographical distribution LEADER **within** their catchment areas, the data on this point are limited. On the basis of an examination of some case-study counties, it appears that counties differ but a general impression is that there has been a tendency for concentration around county towns (Kearney and Associates, 2000, p79). This is perhaps understandable given the concentrations of population and, possibly, greater economic opportunity in those areas. An additional feature of the LEADER programme is that it has encouraged innovation and enhancement of social capital in many areas that were previously neglected by public agencies (Walsh, 1997, 1999).

### **5.2.5 Concluding Remarks**

The case study of Irish agricultural and rural development illustrates the kinds of adaptations made by farming households in the context of the economic boom of the 1990s. This context was marked in particular by a restrictive market environment for Irish agricultural products, a cost-price squeeze for producers, and a complex policy mix that included supply management measures (quotas, etc), compensatory payments for reductions in product prices, incentives to diversify from conventional lines of production and to farm in a more environmentally friendly way. Also impacting on farm household decision-making was the general expansion in the Irish economy, especially during 1996-2002. This expansion was stimulated by several conditions, including especially a national policy for industrial development that placed a very strong emphasis upon attracting foreign direct investments in targeted sectors, which resulted in a more geographically concentrated pattern of employment in manufacturing.

While the 1990s context had some features specific to that decade the adaptations made by individual households, when aggregated,

represent a phase in the longer term trajectory of agrarian restructuring. The characteristics of this transition are well established; they include downward pressures on farm incomes, labour outflow from farms, amalgamation and enlargement of farms, greater reliance on new technologically based inputs, concentration of production in a narrowing band of farm size groups, diversification of farm household income sources and a disengagement from full-time farming.

In Ireland this restructuring has clear spatial dimensions that are significantly influenced by the quality of the underlying resource base (land use range, etc), farm size structure, and demography. While the spatial patterns of farm production cannot be oversimplified a broad division can be made between the northwest/ west and the east and southern regions. This division accords roughly with the current Objective 1 designation of the Border, Midland and West regions.

Compared to the rest of the country the northwest and west has experienced a more rapid decline in small-scale farming, lower absolute increases in ESUs per farm, a greater level of switching out of tillage and dairying, a greater tendency to opt for agri-environment schemes, and also to take up farm forestry as an alternative landuse.

Restructuring in the farm sector is of course strongly influenced by agricultural and non-agricultural policy measures. Farm price supports favour the large scale producers and therefore the value of these supports is higher per farm in the non Objective 1 regions (Lafferty *et al.*, 1999). Direct payments per farm, linked as they are to livestock production, also tend to be higher in the non Objective 1 regions. However, they represent a lower proportion of average farm output and of average family farm income. Data from the Teagasc National Farm Survey for 2000 confirm the average level of direct payments per farm amounted to 33% of the gross output value and 88% of the average family farm income in the Objective 1 regions. The comparable ratios for the remaining regions are 20% and 56% respectively.

Agri-environmental policy measures are more attractive in the Objective 1 regions where farming is less intensive while the incentives to participate in the farmer retirement programme have greater appeal for the larger scale farms in the rest of the country. Farm forestry has expanded more rapidly in the Objective 1 areas, boosted by financial incentives that accompanied a special western package of measures introduced in the early 1980s.

The other major set of policies impacting on farm household adjustment strategies in Ireland are those promoting enterprise, employment and rural development. Nationally, 'wages and salaries' have become of more significance in the economy of farm households

than family farm based income despite the inflation of the latter by non-market oriented payments. The relativities between 'wages/salaries' and farming based income shifted markedly between 1994 and 2000, in favour of the non-farm income component, as the economy in general approached 'near full employment'.

Regional trends in household income are not available but data from farm surveys show the Objective 1 region to have a higher proportion of its farmholders with off farm sources of income, 38.6% as compared with 25.6% in 2000.

During the 1990s, especially since about 1993, Irish economic development and particularly its employment record has been transformed by unprecedented levels of economic growth. Important factors in this change have been the role of the EU Structural and Cohesion Funds in improving infrastructure and more generally the opportunities provided by less restricted access to EU markets. The attraction of foreign direct investment is widely regarded as the main driver of the economic transformation which has brought high tech and high value added employment. A significant outcome for rural areas, however, is that much of the new employment opportunities are concentrated in the larger urban centres. Nevertheless, given the relatively small size of the country there have been positive impacts in rural areas through expanded commuting patterns. Widespread rural depopulation has been reversed in all but a limited number of the most remote rural areas.

But what is of significant interest in the Irish case, in regard to the reversal of the decline in the rural population, is the contrast between two types of 'strong agricultural areas'. In an analysis guided by a census based rural area typology Walsh and Meldon (2004) have shown that in 'very strong farming areas in transition to a non-farm based economy' the total population increased by 10.3% between 1991-2002. By contrast, in 'strong agricultural areas adjusting to restrictions in farm output' without the emergence of a strong non-farm based economy population levels during the 1990s remained static – a performance that was weaker than that of even the more marginal agricultural areas. This conclusion reinforces evidence presented earlier in relation to the relatively weak performance of the Southeast region on indicators of general economic well being despite its comparatively strong agricultural base.

The tendency for FDI enterprise to locate in the more urbanised regions is offset somewhat by a more widespread dispersal of indigenous enterprise. The latter form of enterprise, however, is not as vigorous a generator of employment. The centripetal tendencies of the larger enterprises is also counteracted to some extent, by locally focused

programmes. The EU LEADER programme has been an important initiative in this respect; it has been shown to have a clear bias in favour of the more rural areas. In some instances it has been an important catalyst for local innovation.

### **5.3 The Impacts of Selected CAP/RDP Instruments: Introduction**

The overall assessment of policy impact is rendered particularly difficult through the numerous separate policy instruments as parts of the CAP, and its inter-connectedness with other policy, economic and socio-economic aspects. Following on the MacSharry reform of 1992 a continuing discussion on CAP reform and several rounds of reforms have led to quite substantial changes in the policy framework. Since the mid 1990s the need for a shift from CAP to an integrated rural policy was clearly formulated and a model for such an alternative policy framework was put forward by the group of experts, who were charged by the Agricultural Directorate of the European Commission to outline the principles that might guide the transition of the CAP towards the integration of environmental and rural development objectives (Buckwell *et al.*, 1997). The stepwise transition presented in that report is still seen frequently as the reference for current policy reform.

Agenda 2000 and the last reform of July 2003 have made, albeit restricted, contributions to changes towards integration and a stronger focus on rural development policy. Yet, implementation of the respective schemes have been rather weak and the Rural Development Programmes, elaborated after Agenda 2000 have only brought a very limited increase of rural development funds on average of all EU member countries. The initial high expectations among some Member States and stakeholders, e.g. environmental organisations and rural development groups, for radical reform of the CAP into a policy for sustainable rural development, in which the RPP would play a key role, have been disapproved by the slow pace of reform and the strong political resistance to any move that could be seen as taking money away from farmers (Lowe and Brouwer, 2000). In reality it turned out that RDP are focused on support for activities 'close to agriculture'. There are however striking differences in the patterns of expenditure of RDP and also SAPARD application which broadly reflect historical allocations to similar measures in the past and which have not been fundamentally altered by the new Programmes (Dwyer *et al.*, 2002).

The analysis of spatial effects of the CAP and rural development policy provided by previous data analysis had to be enriched by in-depth studies on the application of specific instruments: Agri-environmental programme (AEP), Farmers' Early Retirement Scheme (ERS), Less Favoured Areas Scheme (LFA) and LEADER Programme. As the



orientation towards spatial issues is thus expressed in the rural development measures (Pillar 2) our work had to focus on this policy application. The methodology for case studies selection is outlined above (see Chapter 4, case study methods). The experiences and conclusions drawn are not representative for the all the area and countries, but aim at drawing general lessons to be encountered throughout the European Union. Moreover, a selection of good practices for some of the instruments will be summarised in the next chapter (Chapter 7).

The following sections provide the synthesis of the case studies carried out within the ESPON project, including additional information illustrating regional specific application and spatial impact of instruments by available literature. It can be mentioned that a host of respective studies at regional, national and European level have been done, and evaluation studies cover increasingly all the types of instruments. However, most of these studies don't include region specific information and spatial impact analysis. For future spatial policy analysis a European database on policy instruments application, including spatial information on expenditure and up-take indicators would be useful. The monitoring systems being established according to evaluation requirements should be helpful in this regard.

The other reference source used are, primarily international, research projects, some of them carried out within the EU's Research Framework Programmes. In this regard the studies of sub-area 4.6 'Rural development' of the Fourth Framework specific RTD programme "Agriculture and Fisheries" (FAIR) for the period 1994-1998, sub-area 5.5 'Sustainable development of rural and other relevant areas' of the "Quality of Life" Fifth Framework Programme for the period 1998-2002, and activities on 'multifunctional land use' under the policy-oriented research of the Sixth Framework Programme are of specific interest. In particular, it will be referred to those projects which address region specific application of CAP measures or focus on institutional aspects of rural development processes.

## **5.4 Agri-environmental Programmes**

### **5.4.1 Introduction**

Since the ratification of the Maastricht Treaty, the EU has a legal obligation to take account of environmental protection requirements when drawing up and implementing Community policies, an obligation which was reinforced by the Amsterdam Treaty of May 1999. The ESDP has as one of its core objectives sustainable development, prudent

management and protection of nature and cultural heritage (ESDP, 1999). This objective is an integral part of the ESPON programme.

The structural transformation of agricultural production throughout Europe in the second half of the twentieth century has, on balance, contributed to a number of environmental problems. Technological and economic changes have resulted in increased levels of intensification, specialisation and concentration which in many areas resulted in negative externalities that include ecological effects such as a reduction in biodiversity and loss of habitat and landscape features, as well as growing problems of soil degradation, water depletion and contamination, and also air pollution (OECD, 2003b; CEC, 1998; Baldock *et al.*, 2002). There is evidence of considerable dysfunctionality in terms of negative consequences generated for the rest of society by agricultural production (Matthews, 2002). The abandonment of farmland also creates pressure on the countryside and biodiversity (CEC, 1999).

Policy instruments have in many cases exacerbated the environmental problems associated with the modernisation of agriculture. The CAP has been predominantly focused on assisting farmers to intensify their production systems, including expansion of production onto environmentally sensitive or marginal areas. While it is difficult to establish precisely the contribution of agriculture policy to environmental damage there is little doubt that the CAP has exacerbated the negative environmental externalities associated with modernisation of farming in many regions (Baldock *et al.*, 2002).

The relative importance of different environmental issues depends on the effects of farming practices at different geographical scales, - local, regional, national or international - which in turn reflect variations in climatic and ecological factors. In addition the level of priority attached by society to agriculture induced environmental issues can also vary between and within regions depending on such factors as population density, income levels and the value attached to cultural heritage (OECD, 2003b).

It has been argued that by encouraging intensification and specialisation, the CAP has threatened the habitats of flora and fauna. For example, in Germany, it is estimated that:

- 29 % of the fern plants and flowering plants (*Farn- und Blütenpflanzen*)
- 36 % of the bird species (*Vogelarten*)
- 47 % of the aboriginal mammal species (*einheimischen Säugetierarten*)
- 58 % of the amphibian species (*Lurcharten*)

have been lost as a result of the intensification of agricultural production methods (Loesch and Miemberg, 1986; Voegel, 1993). Similarly, in Ireland, the range of bird species has been reduced in areas of intensive farming. The most commonly cited example is the retreat of the corncrake following the switch from hay to silage as winter fodder for livestock.

The impacts on landscape quality that have been associated with intensification include:

- Removal of field boundaries (which also includes loss of habitats for flora and fauna);
- Destruction of archaeological monuments; and
- Detrimental impacts on the environment such as pollution of river water, eutrophication of lakes, and significant contributions to methane gas emissions (Stapleton *et al.*, 2000).

A study of the financial costs of UK agriculture as a whole in 1996 found that the total cost of all environmental externalities (including those associated with human health) is equivalent to 13% of the total average gross income of the sector in the 1990s (Pretty *et al.*, 2000). Like other studies, the author identified very different environmental costs associated with different types of farming. Given the distinct geographical pattern of farm types across Europe, this finding supports the hypothesis that negative environmental effects of agriculture are territorially specific. However, the extent to which these effects can be specifically attributed to the CAP is less clear (Baldock *et al.*, 2002).

#### **5.4.2 Objectives and Key Elements of Agri-Environmental Programmes (1992-2000)**

The 1992 reform of the CAP introduced support measures for agri-environment measures at European level to encourage more environment-friendly production methods. Agri-environment policy is needed because of a market failure to take account of the environmental consequences of farming (CEC, 1998).

The agri-environment Regulation, Council Regulation No (EEC) 2078/92, provided for programmes to encourage farmers to carry out environmentally beneficial activities. By the end of the 1990s coverage under agri-environmental payment contracts reached almost 20% of farmland in the European Union (OECD, 2003b). Agri-environment programmes account for approximately 30% of total rural development funds in the EU-15. Agri-environment measures also form a significant element in the Rural Development Programmes of many of the new Member States with up to 44% of the total budget allocated to the measure in Hungary and amounts in excess of 30% in some other states (see WWF, 2004), albeit on average the share of total rural

development funds (section Guarantee) is only 18% (preliminary indicative budget). Agri-environment schemes now form part of the suite of measures that make up the Rural Development Regulation introduced as part of the Agenda 2000 reforms.

Member States are required to apply agri-environment programmes throughout their territories, according to environmental needs and potential. The objectives of such programmes fall into two broad categories:

- To reduce the negative pressures of farming on the environment, in particular on water quality, soil and biodiversity;
- To promote farm practices necessary for the maintenance of biodiversity and landscape, including avoidance of degradation and fire risk from under-use.

It has been argued that there is a lack of clearly specified environmental objectives in the scheme as established by the EU and in the majority of measures applied in Member States with objectives mainly focused on agricultural practices (Schramek *et al.*, 1999). It has also been argued that agri-environment payments function as income supports conditional upon delivering environmental benefits (cross compliance model) rather than as payments for environmental outputs (Harte and O'Connell, 2002).

Environmental outcomes related to agricultural practices are not limited to the agri-environment Regulation but are also addressed through the Birds and Habitats Directive, Water Framework and Nitrates Directives and associated regulations. Integration of environmental objectives requires that mechanisms within the CAP should be identified to support attainment of the goals of these directives.

The main elements characterising agri-environment agreements include the following:

- Farmers deliver an environmental service;
- Agreements are voluntary for the farmers;
- Measures apply only on farmland;
- Payments cover the income foregone, costs incurred and necessary incentive.

The Regulation accompanied the reforms of the common agricultural policy, which were begun in May 1992. In addition to the land management measures, the Regulation provides for training and demonstration projects to promote the use of environmentally beneficial techniques and good farming practice. Regional or national authorities manage the programmes under a decentralised system of management, subject to approval by the Commission for each programme. Administration is normally undertaken by the agriculture

authorities, with the environmental authorities often responsible for programme development, implementation, monitoring and evaluation. In a few cases the environmental authorities manage the programmes. A flexible administrative framework, encouraged under the Council legislation has led to a variety of programme structures in the Member States including the countries that have most recently become members of the EU.

In Hungary, an agri-environment policy was established 1999 to conform with EU regulations. General schemes are applicable throughout the country and specific schemes applicable in particular circumstances in selected zones. The National Rural Development Programme 2004-2006 comprises:

- entry level schemes
- integrated crop management
- organic farming
- high nature value area schemes
- supplementary agri-environmental measures.

In total, over 15% of the utilised agricultural area of Hungary should be involved in agri-environmental measures by 2006. Take-up is biased towards less favoured areas with higher unemployment and high dependence on agriculture. While agricultural policies are administered by the Ministry for Agriculture, compensation schemes for environmentally sensitive areas fall within the ambit of the Ministry of Environment.

In Norway, where agri-environmental programmes have been in place for a number of years, the programme is agreed between the two main farming unions and the government (see Box on following page).

The majority of Member States have adopted zonal programmes. These are established at different administrative levels (national, sub-national, and regional) and normally include general measures which concern all qualifying farmers in the administrative territory and more specific schemes for designated zones. In addition, most measures are only applicable to certain types of crop or land use. Most Member States have adopted horizontal measures through all the national territory, particularly for organic farming and training programmes. In Spain for example, there are horizontal measures applicable to the whole country covering extensification, breed and strain preservation, organic farming and agri-environment training.

## **Norway: Agri-environmental Schemes: Best Practice**

Norway has had environmental support or payment schemes in operation within the agricultural sector for many years. Since 2003, each farmer in Norway has had to set up an environmental plan for his/her farm to be eligible for any type of support from the government. The environmental plans for the individual farms in the future will have to be in line with the agricultural environmental programme to be implemented in the county.

The first overall national programme was implemented in May 2004. The aim of the schemes has been to support farmers for the provision of public goods such as the cultural landscape, and to reduce negative externalities such as nutrients runoff.

In 2003, the two farmer unions and the government agreed to introduce regional environmental programmes from 2005, in addition to the national programme. From 2005, it will be up to the regional agricultural authorities and the County Governor to prepare regional environmental plans in cooperation with the farmers' unions and to establish the appropriate type of support schemes in each county. The regional environmental plan in each county will have to be approved by the Norwegian Agricultural Authority; the environmental support schemes must follow specific guidelines. A support scheme should either focus on the maintenance of the agricultural landscape (cultural landscape) or focus on reducing pollution from agriculture in the county.

One major environmental scheme in Norway is the acreage and cultural landscape scheme, which in principle covers all agricultural land in the country. The aim of the scheme is to keep agricultural land in use and thereby maintain an "open" landscape (agricultural land is scarce in Norway, only 3% of the total land area). In addition, the farmers have to obey specific rules regarding agricultural practices to preserve and take care of the totality of the agricultural landscapes respecting environmental values and recreational values, to be eligible for these payments ("cross compliance").

Farmers in Norway also receive headage payments, partly as income support, and partly as environmental payments to enhance grazing or an environmental and animal welfare friendly husbandry in general. Organic farmers are entitled to additional acreage payments. The territorial effects of these "broad" schemes are difficult to judge since we do not know what would have happened without these schemes. However, it is reasonable to suppose that agricultural activity and land use would have been lower, especially in marginal areas. There is a concern in Norway that the areas of "open landscape" are diminishing, and that this may also reduce biodiversity since many plant and animal species are dependent upon these landscape types. Without these payment schemes, it is highly likely that the problem of overgrowth would be much larger than it actually is.

Different priorities and concerns of the first wave of agri-environment programmes have been identified at national and sub-national level by the project FAIR1 CT95-274 project (Schramek *et al.*, 1999). These comprise

- a focus on nature and landscape protection and on mechanisms for changing agricultural land management (the UK in particular; there are also strong naturalist traditions in Germany, Sweden and Austria);
- the economic support of marginal agricultural activities threatened by the abandonment of farming and compensation for natural handicaps is an important part of the programme in places such as southern France, parts of Spain, Portugal and much of Greece;
- Farm based pollution is a concern in a number of countries such as Germany and Denmark;
- Agricultural modernisation and structural reform has been an important goal in southern European countries in particular.

Member States have as a consequence used different criteria to target programmes and measures grouped primarily under agricultural and environmental objectives, which has contributed to some variation in take-up rates. While some Member States (Finland, Austria, Sweden, Germany) are above average, others (Belgium, Denmark, Greece, Spain and the Netherlands) fall below (see also map 4.9 in TIR, p.95). Participation is generally higher among farmers engaged in more extensive farming systems and frequently on smaller farms (but not exclusively, e.g. Spain, Paniagua Mazorra, 2001). Schramek *et al.* (1999) have identified financial incentives as the most important motivation.

Among the reasons put forward to explain relatively low take up rates are the innovative nature of the measures, their complexity, the problems caused for certain administrations, political priorities, the balance in certain Member States between central and regional governments, budgetary difficulties in certain Member States (or regions) in providing the necessary part-financing (in Hungary for example the number of applications in 2002 was 5321 but only 2691 were selected because of limited funds), the cultural reticence of some farmers and the economic benefits of continuing to practise intensive agriculture. There is evidence that commodity supports actively discourage take-up of agri-environment measures (Brouwer and Lowe, 1998).

The agri-environment programmes are innovative in many respects including the importance given to subsidiarity (the Member States draw up their own programmes), the fact that the participation of farmers in

the programmes is voluntary, and the multi-annual nature of the programmes.

Not all environmental improvements associated with agricultural practices are due to agri-environment schemes under the Rural Development Regulation: there are in addition some specific measures supported under the Structural Funds (ERDF) to counteract the effects of intensive farming, for example, the National Scheme for Control of Farmyard Pollution in Ireland.

### **5.4.3 Territorial Impacts of Agri-Environmental Programmes**

Regional production conditions influence the territorial impact of agri-environmental schemes. Firstly, farmers are only eligible for some agri-environmental schemes if they satisfy certain habitat-specific conditions and the ability to meet these conditions varies spatially. Secondly, the opportunity costs associated with complying with the conditions of agri-environmental schemes will vary across space as well as between farm types. Compensation payments are generally not sufficient to encourage intensive farmers to participate.

A number of studies have pointed to evidence of environmental improvements generated by the programmes including reduction in soil erosion and pollution, limiting pressure from input use, conservation of habitats and maintaining cultural landscapes (see for example CEC, 1998; Baldock *et al.*, 2002). There is strong evidence from Ireland of improvements in farming practices leading to reduced environmental impact (Teagasc, 2003) but evidence of positive impacts on biodiversity is more limited and indeed the application of some measures is possibly detrimental to biodiversity (Feehan *et al.*, 2002). However the effectiveness of the programme has in some cases been compromised by either poor targeting or implementation in tandem with production-linked support policies that are associated with environmental problems (OECD, 2003b; Brouwer and Lowe, 1999). This is particularly relevant for horizontal programmes which are not oriented at a special environmental objective but aim at achieving low intensive management of land in general, as reported from Germany (Eckstein *et al.*, 2004). At the local level there is evidence from Spain (Paniagua Mazorra, 2001) and Ireland (Emerson and Gillmor, 1999) that the voluntary aspect of participation has limited its effectiveness through the production of a patchwork effect.

In Austria, the horizontal nature of the programme and the rather low level of intensive farming in large parts of the country have resulted in a very high overall participation in the agri-environmental programme (ÖPUL) since its establishment in 1995, with 72% of farm holdings participating in the scheme (farming 88% of UAA of Austria). Organic



farming is an important element of agri-environment policy. The approach to the programme in Austria is characterised by an integrated horizontal approach that encompasses all agricultural activity (i.e. not just agriculture in ecologically sensitive areas as in some other countries.) The aim is the 'ecologicalisation' of Austrian agriculture covering the whole territory. Two types of ecological aims are pursued through the programme:

- Maintenance of positive ecological effects of extensive and ecologically sound farming systems for protection of biodiversity and landscape quality.
- Reduction of negative ecological effects of intensive farming systems for reducing degradation and erosion of soil, contamination of ground- and surface water and the decrease of biodiversity and landscape quality.

The extent of uptake and the quality of OPUL measures adopted by farmers has ensured a high achievement of ecological aims (Groier, 2004).

While there is a very high uptake of OPUL among Austrian farmers overall, participation rates among more intensive farms are relatively lower, because they require more significant changes in existing farming management (Groier and Hofer, 2002). Similarly, in Ireland, participation in the agri-environment scheme REPS (Rural Environmental Protection Scheme) has tended to be low among the more intensive farms, which are also likely to be the farms causing most environmental damage. Low participation has been attributed to the level of payments being insufficient to compensate for income losses associated with a switch to less intensive farming. Highest take up rates are among low intensity, small farms which for historical and ecological reasons are concentrated in certain regions such as the west of Ireland, including particularly LFAs (Department of Agriculture and Food, 1999; Matthews, 2002).

The indirect impacts of agri-environment schemes on cohesion are evident in a number of countries such as Ireland and Germany. In Ireland REPS has been of greatest benefit to low-income small farms in more marginal farming regions (see Box on following page). In Germany underdeveloped remote rural areas benefit from protection measures for surface and ground water and reforestation schemes. The synergy of subsidies, funds, agri-environment measures and forestry measures contributes to maintenance of farming in poor farm regions. Agri-environment measures have much higher relevance for extensive farming areas, and much less for intensive farming because the financial incentive is not high enough. Agri-environment measures maintain farms producing in marginal areas but conditions of payment restrict land use intensity and therefore production.

## **Ireland: Rural Environment Protection Scheme (REPS)**

### **Context**

Post-1973 modernisation of agriculture (Ireland's accession to EEC) – economic and social benefits but negative environmental impacts:

- Pollution from silage effluent and animal slurry
- Excessive fertiliser applications- eutrophication of lakes and rivers
- Contamination of ground water
- Land reclamation and drainage- destruction of wildlife habitats
- Loss of sites of historical and scientific interest
- Visual intrusion of farm buildings on landscape
- Increased livestock numbers – increased levels of methane gas – breaching Kyoto targets

Very little agri-environment support prior to 1992

REPS devised by Department of Agriculture and Food and launched in June 1994

### **Objectives**

- To establish farming practices and production methods reflecting increasing concern for conservation, landscape protection and wider environmental problems/issues.
- To protect wildlife habitats and endangered species of flora and fauna
- To produce quality food in an extensive and environmentally friendly manner.

Eligible farmers entitled to payment of €151/ha to max of €6040 (1994)

### **Application**

- 11 horizontal measures
- 6 supplementary zonal measures

Characteristics: universal availability, voluntary, restriction of payments to <40 ha, inclusion of training element

### **REPS Adoption**

Initial target: approximately 45,000 farmers (25% of total), 1.3 million ha  
2003 (October): 37,000 participants (29% of total farmers); 1,312,200 ha  
Highest participation rates principally in areas with small farms and extensive farming systems; low rates in most intensive farming (and most damaging) areas

### **Conclusions**

- REPS of greatest benefit to low-income small farms in more marginal farming regions
- Compensation payments not sufficient to encourage intensive farmers to adopt
- Evidence of improvements in farming practices leading to reduced environmental impact (reduced application of inorganic nitrates and phosphates); very little evidence of environmental enhancement (especially in relation to habitats and biodiversity).
- Particular concerns about lack of monitoring and the absence of specified targets.

The importance of alternative enterprises and diversification of the rural economy is borne out by the evidence from Austria (Groier, 2004). While the take-up of the programme is generally very high in mountainous regions, it is relatively less significant in areas with intensive winter tourism activity and where dynamic structural change is higher than average.

In some territories the emphasis has been on zonal or regional programmes with a specific focus on areas of ecological significance. For example, in Spain there are regional or zonal programmes with two action areas, national parks and environmentally sensitive areas, and areas of specific environmental interest proposed by Regional Governments (see Box on following page). The principal focus of the programme is the protection of low intensity farming systems. However because of the regional nature of the programme, the result has been a patchwork effect with limited connection among different regional measures thus limiting its efficiency.

In addition to its role in protection of low intensity farming systems and the conservation of ecologically sensitive areas, the agri-environment programme has also been used to provide direct income support to farmers affected by unsustainable practices (for example, unsustainable water extraction in Castilla la Mancha in Spain – see Box) and thus indirectly aid the recovery of the ecosystem. The programme has also been utilised to support alternative production practices in order to remedy environmental damage as in the case of the Salt marshes of the Guadalquivir River in Spain – see Box). In Norway a scheme to prevent soil erosion was introduced in 1991 as part of an annual agreement between the two farmers unions and the government, to support farmers in changing soil preparation for winter cereal growing.

## Spain

### **Case study 1: Habitat conservation: The Steppe Cereal Programme in Castilla y Leon**

Introduction of agricultural practices compatible with the conservation of steppe birds.

First two contracts managed by agricultural administration; last two by environmental authorities with a very different (strictly ecological, not rural) approach.

Overall, the programme has succeeded in improving habitat quality, changing the homogenous landscape structure and achieving favourable conditions for conservation.

Farmers' participation depends mainly on economic factors, but geographical and socio-economic factors have contributed to an imbalance in the geographical distribution and so on territorial impact. The majority of those involved are part-time farmers.

### **Case study 2: Unsustainable water extraction for agricultural production: Income Compensation in Castilla la Mancha**

Since 1980s, a dramatic increase in crop production occurred because of intensive programme of irrigation. Water extraction from aquifers far exceeded capacity for renewal. The resulting unsustainable imbalance between water demand and water supply led to a sharp decline in groundwater levels, and laws were passed from 1987 onwards to limit sinking of new wells.

The CAP had encouraged intensification and reinforced expansion of irrigation, with short-term improvements in employment and incomes but also environmental damage with overexploitation of aquifers, degradation of wetlands and loss of biodiversity.

The application of an agri-environment programme during 1993–2002 allowed income compensation for the reduction in water extractions.

In spite of decreasing water consumption, the aquifers have not yet recovered (severe droughts in 1986/88, and in 1990/95)

### **Case study 3: Integrated Rice Production: Salt Marshes of the Guadalquivir River**

Very significant habitat for aquatic birds – also productive rice-growing region  
Damage from pesticides and nitrogen used to control pests.

Integrated rice production has resulted in reduction in the use of chemicals – almost the whole rice area is under agri-environmental integrated production.

#### **5.4.4 Conclusions and Recommendations**

The agri-environment programme is a response to the obligation to take account of environmental protection requirements arising from Maastricht and subsequent EU Treaties. The diversity of the European agricultural landscape as well as the diversity of cultural values and the differing structures of farming systems make it very difficult to identify a common set of indicators to assess the effectiveness of the measures.

The objective of this analysis has been to examine the overall impact of the agri-environment programme within the CAP as measured against ESDP and Cohesion objectives. While it is not possible to state with certainty what has been cause and effect in respect of particular policies it is evident that the programme has the potential to contribute to the achievement of a number of the core objectives of the ESDP and ESPON. These can be summarised as follows:

- The agri-environment programme contributes to prudent management of and protection of nature and cultural heritage through encouraging a reduction in inputs of inorganic fertilisers; conservation of habitats, and preservation of the cultural landscape. Agri-environment schemes are particularly suited to the encouragement of appropriate land management (Baldock *et al.*, 2002).
- The provision of support for organic production, which is given a high priority in a number of countries, has the potential to contribute to balanced competitiveness through high quality food production targeted at niche markets.
- The programme makes an important indirect contribution to economic and social cohesion through the provision of income support in marginal areas and thus contributing to the retention of rural population.

While horizontal measures especially in respect of organic production and training have been a feature of the programme in most member states, it has been largely identified with environmentally sensitive and extensive farming areas with the notable exception of Austria where the aim is the 'ecologicalisation' of all agricultural activity.

### **5.5 Farmers' Early Retirement Scheme**

#### **5.5.1 Introduction**

The Early Retirement Scheme aims to address the perennial structural problems of the age profile and poor viability of farm holdings, a main

feature of a number of Member States. The ERS provides a pension for elderly farmers to retire and an opportunity for young farmers to take over holdings and practise farming. The Early Retirement Scheme was not mandatory, and hence was not implemented in some countries, including Italy, Luxembourg, Sweden and the UK.

The eligibility criteria (EU Reg. 1257/99) covering the ERS 2000-2006 include a series of limitations in relation to *age* (the transferor should be not less than 55 years old but not yet of normal retirement age at the time of transfer, whilst the transferee should not exceed a maximum age<sup>33</sup>), *occupation* (the transferor must have practised farming for the preceding ten years<sup>34</sup> and he/she also has to cease all commercial farming activity<sup>35</sup> and release his/her land to a suitable transferee who must practise farming on the holding for not less than five years<sup>36</sup>), *economic viability* (measured in terms of an obligatory increase in the size of the transferee's agricultural holding<sup>37</sup>) and *farming skills* on the part of the successor (testified either by attending the Certificate of Farming course or other adequate farming experience).

### **5.5.2 National Applications of the Early Retirement Scheme**

The uptake of the various versions of ERS in different European countries is indicative of the structural effects (age and scale), costs and efficiency gains of the instrument itself. Overall, it appears to have allowed a number of elderly farmers to retire in a dignified way. However, the Scheme's potential to accelerate structural adjustment in terms of radical changes in the age profile has not been achieved (Naylor, 1982; Paniagua, 2000) since more than 30% of the most targeted farmers in Mediterranean countries are still aged over 65 years old). This is also in agreement with the conclusion of the Ex-Post Evaluation (Agra CEAS Consulting, 2003: 3) of measures under Regulation (EC) No. 950/97, where it is stated that "relatively little land was released as a result of the Early Retirement Scheme".

Its use as a social policy to ameliorate the financial difficulties of elderly farmers has also been deemed insufficient because of the relatively low

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<sup>33</sup> In Greece, the transferee has to be between 20 and 40 years old. In the Spanish and Irish cases, the transferee must be less than 45 years old (Reg. 1257/99).

<sup>34</sup> Farming and on-farm activity must account for a certain percentage of the transferor's income and time over the preceding ten years, which varies between both member states and successive periods within the same country.

<sup>35</sup> The participating farmers may retain up to 1 ha and the use of farm buildings for non-commercial farming.

<sup>36</sup> In Ireland, the ERS transferee's requirement to practice farming as a main occupation (on the basis of their declaration of off-farm time and income) was removed for the period 2000-2006 (Reg. 1257/99), which reduces barriers to participation by smaller, part-time farmers.

<sup>37</sup> Member states once again exercised discretion in the way the ERS regulations are implemented. In the period 1994-99, the Irish transferees were required to already own 5 ha or alternatively expand the holding by 5 ha or 10% of the transferor's holding. However, the condition to enlarge the new Irish holdings to demonstrate viability was removed for the period 2000-2006 (Reg. 1257/99). By contrast, in both Greek versions of the ERS, the minimum size of the transferee's holding was kept variable according to the type of cultivation, that is 15% (Reg. 2079/92) and 10% (Reg. 1257/99) of the transferor's holding or 5 ha of non-irrigated land or its equivalent.

pensions on offer, the lessening of other entitlements (medical cards, social security benefits or subsidies), and regional imbalances in its uptake (richer areas benefiting the most). However, it has facilitated a partial transfer of resources from older farmers to younger ones for the purposes of setting up or enlarging farms, which primarily supported the process of farm household adaptation to CAP reform and restructuring (Allaire and Daucé, 1996). In line with an integrated rural development approach, which puts emphasis on the process as part of the outcome by bringing together different actors in the farming community, it can thus be claimed that the ERS achieved a certain degree success.

To this extent, the ERS "has proven to be most popular in France, Ireland and latterly Greece, and these countries in aggregate accounted for 88% of total spending between 1992 and 1999" (Caskie *et al.*, 2002: 12). Spanish farmers were much more modest participants of the ERS, whilst Danish farmers showed that it was only their second-best option (525 participants) and a great majority preferred to use a more generous national early retirement package available across all sectors of the economy (Caskie *et al.*, 2002). Considerable synergistic effect with the Young Farmers Scheme was reported for Finland (Agra CEAS Consulting, 2003).

In France, a supplementary retirement grant to the state old age pension of full-time farmers over 65 years old (Indemnité Viagère de Départ – I.V.D.) has been in operation since 1962. A spatial dimension was introduced into one of its later versions, with an early retirement premium (I.V.D. Non complément de Retraite) being available from 1968 to 1974 in problem areas (such as Brittany and the Massif Central) to farmers between 60 and 65 years of age (Naylor, 1982). By the 1970s, the early retirement premium started to be associated with farm enlargement objectives, or "the installation of suitably qualified young farmers" (Naylor, 1982: 28). "Between 1963 and 1978, a total of 562,000 farmers have received the I.V.D. pension and one-third of the total agricultural area of France had been transferred through the scheme", although "the objective of achieving a shift in land holding towards younger farmers has not been fully achieved" (Naylor, 1982: 29). To this extent, I.V.D. constituted the institutional template on which the EU ERS was built in 1992. However, it was admitted even then that the I.V.D. mainly advanced the farm transfer by a few years rather than increase the rate itself (Naylor, 1982).

A variety of ERS regulations have been tried in France in three successive periods: 1992-1994, 1995-1997 and 1998-2006. Cost considerations, social objectives and structural aims determined their operational usefulness. Flat-rate payments (€5,335 per year for farms up to a maximum 10 ha with a supplement of €76 per ha for each

additional ha up to a maximum 50 ha) in the period 1992-94 gave way in 1995-1997 to differential pension payments for participants depending on the status of the transferee (setting up of a young farmer, enlargement of a young farmer's existing holding or just enlargement of the farmer's holding). The limited contribution of the first French ERS to the promotion of new entrants into farming (15%) and its unfocused design led to a targeted but also more expensive second national ERS. This was finally transformed into an instrument of social policy for elderly French farmers in dire straits or poor health (third ERS, 1998-2006). The Council Regulation 1257/99 covers the current ERS (2000-2006) in France, which has attracted 1,300 farmers in the first two years of implementation (2000-2001).

43,000 French farmers participated in the first ERS (a rate of 30%), which was heavily criticised for its inadequate representation of young transferees (6,600). On the other hand, one third of those who adopted the first ERS were found to be women, an incidence attributed by Allaire and Daucé (1996) to the lowering of the normal retirement age to 60 years old (they replaced their spouses who had to retire earlier). Moreover, as Brangeon *et al.* (1996) discuss, a pension income higher than farmer's existing earnings was found to be the main explanatory variable for those who decided to participate in the first ERS (Caskie *et al.*, 2003). The participation rate fell considerably in the second ERS (16%) that appealed to only 18,000 farmers, with a high cost (€600 million) alongside a significant increase in the numbers of young farmers setting up (8,000) and a sectoral attraction for dairy and beef farmers (Caskie *et al.*, 2002). 700,000 ha were released in the period 1995-97, whilst 1.3 million ha had been released in 1992-1994 due to the simpler nature of rules governing the first ERS and its higher absorbency rate of multiple generations waiting to exit farming.

An evaluation of the second ERS in France (Daucé *et al.*, 1999) has pointed out its short-term orientation, in that it only managed to bring forward farmers' retirement decisions by a few years and to instigate young farmers setting up that would not have taken place otherwise, by only 15%. Modelling of its impact against underlying trends in farmer retirement has shown that it was strongly supportive of the young farmers' setting up within farming families (Daucé *et al.*, 1999). Moreover, it was argued that the speeding up of the numbers retiring as a result of the ERS would be followed by a below-trend retirement rate. To this extent, aggregate retirement levels would remain the same in the long term and thus current changes in retirement have a break-even point, which only portrays what would have happened anyway. It was concluded that the second ERS (in operation from 1995 to 1997) became an expensive policy because it ended up promoting only a modest number of young farmers' setting up (Daucé *et al.*, 1999).



In Greece, the first version of the ERS was implemented through the Regulation 1096/88 (1989-1990) that proved to be an immature plan to foster early retirement. Farm transfers were made by gift, sale or lease on the basis of an informal written agreement between the transferor and the young transferee, which meant in practice that the majority of holdings continued to be cultivated by those who opted for early retirement (Koutsomiti, 2000). This first version allowed 61,500 Greek farmers to participate in 1989 and 9,500 in 1990. Regulation 3808/89 introduced stricter eligibility criteria with the transferor having to cease all farming activity rather than just share a joint unit with a young farmer (Louloudis *et al.*, 1993: 470). In any case, only 2% of the farms were transferred on a permanent basis in the period 1989-90, whilst 41.38% of the total number of applicants were found to be ineligible later on (Louloudis *et al.*, 1993: 470).

The objective of the second version of the ERS in Greece through Regulation 2079/92 was 50,000 farmers. This was not achieved, with only 26,623 participants being recorded at the end of the period 1995-1999, and problems of non-compliance with the requirement to cease farming continuing to be present. The average holding size of the participating transferors at the country level was less than 3 ha (or 1.14 ha of non-irrigated land, 0.90 ha of irrigated land and 0.71 ha planted with trees) (Koutsomiti, 2000). Although Greece has very severe structural problems in agriculture (Table 0.11), "the Scheme was not viewed primarily as an aid to structural adjustment but as a social policy for the alleviation of low farm incomes" (Caskie *et al.*, 2002: 17). Only 63,726.7 ha were transferred to young farmers between 20 and 40 years old during 1995-1999 in Greece.

Modelling of the factors affecting farmers' decision-making regarding the continuation or not of their agricultural activities in Less Favoured Areas (LFAs) has attributed primary importance to the age and succession, and much less to the LFA payments (Spathis and Kaldis, 2003). To this extent, the ERS was considered to be instrumental in the combat against rural depopulation in LFAs, with any delays in the farm transfers to younger farmers being potentially 'fatal'. In other words, elderly farmers in LFAs who choose to remain active in farming for longer maximise the likelihood of pushing their potential successor out of farming altogether.

In Ireland, the first initiative to encourage farmers aged 55-65 to retire early came into operation between 1974 and 1985 (Directive 72/160/EEC), but only 600 farmers participated. "This level of adoption was much less than an exploration of the potential attitudes towards the scheme of elderly farmers in the west might have suggested" (Gillmor, 1999: 80). Unwillingness to retire early, farm succession

issues, sentimental bonds with the land and low pensions were the reasons for deterring the great majority from participating into the Scheme.

The first round of the Irish version of the EU ERS (Reg. 2079/92) commenced in 1994 and was linked to both farm transfer to eligible transferees and subsequent farm enlargement with a variable rate paid depending on the transferor's farm size. A total of 9,380 farmers participated during the period 1994-1999 (23% on average), out of about 40,000 that were believed to be eligible, resulting in the release of 283,800 ha (AFCon Management Consultants, 2003). As Murphy (1997: iii) points out, "the majority of transfers under the scheme were to family members, and the average size of farm transferred was 31.37 ha (average farm size in Ireland is 26 ha), whilst the average size of the enlargement clause was 21.23 ha. Approximately 30% of transferees were aged 35 or more". Since 1997, after changes in the Irish law, gift tax/inheritance tax has affected only very large farms valued at more than £1.8m. Total expenditure on the scheme (1994-1999) was €315 million. However, it was argued that the scheme "has been least successful in those parts of the country which might be deemed to need it most because of the old age structure of the farmers and the small size of holdings" (Gillmor, 1999: 84). The spatial dimension of the Irish ERS will be dealt in the following section.

52% of the ERS Irish applicants (1994-1999) were women who applied either in their own right as landowners or as joint managers where a partner, usually a spouse owns the land (Murphy, 1997). In most cases, joint management was to be declared only when the female partner was the younger person retiring (ten years younger for the 17% of the males over 55 years old, Irish Census 1991) and the only eligible person for the ERS. However, "90% of the farm holders in the 1991 agricultural census were found to be male" (Murphy, 1997: 11). "Farm women in practice make a significant contribution to running the farm but their work has been to a certain extent invisible because they are not classified as 'actual' farmers as by and large they are not landowners" (Murphy, 1997: 11). To this extent, some deadweight was involved in the transfers taking place under the system of joint management (Murphy, 1997).

The national evaluation of this first version of the Irish ERS (1994-1999) also included a sample survey of 94 beneficiaries, equally split between men and women. 40% of the surveyed farms were below 30 ha, and only 5% of the beneficiaries had farms less than 10 ha. The survey findings also showed that only a small proportion commenced a gradual hand-over of activities in the five years prior to retirement, whilst the majority intended to retire at the normal age (Murphy, 1997: 60). The ERS was successful in persuading farmers to retire on average

6 years earlier than normal. The value of the pension was the main factor influencing farmers' decisions to take early retirement (for 79% of women and 70% of men). More than half of the retirees said that they were financially better off since retirement, and a further 35% said that their income had remained about the same with only 10% claiming that they were worse off. Moreover, "when people were leasing rather than transferring the holding outright the main reason for leasing was usually that they were not able to give it to their family at that particular point and so they were leasing it in the meantime" (Murphy, 1997: 61).

The second version of the ERS (2000-2006) in Ireland has recognised that the previous enlargement requirement (Reg. 2079/92) acted in the favour of "the established and larger farmers who are more able financially to acquire land by lease or purchase" (Gillmor, 1999: 84). In response to this criticism, the new version has given leeway to young part-time farmers who are now able to qualify as ERS transferees (see footnotes 4 and 5). Scanlan's remarks (2002) in relation to the revised ERS's 'need for fine tuning' provide additional information. The uptake has been slower than expected because of the Foot-and-Mouth Disease crisis, whilst regional imbalances in uptake have also remained unshaken (Munster/South Leinster: 75% of applicants; Connacht/North Leinster/Ulster area: 25%). The maximum available payment is thought to be less attractive than in the previous round, mainly because of increased living standards in Ireland and higher state pensions (Caskie *et al.*, 2002; Scanlan, 2002). For the first two years of the Irish RDP 2000-2006 measures, 1,257 ERS participants (39,804 ha transferred) have been reported (AFCon Management Consultants, 2003).

In Spain, the initial European package on early retirement (Reg. 1096/88 and 3808/89) was linked to the restructuring objectives of young farmers and attracted very small numbers of beneficiaries (868 in 1990 and 1991) (Paniagua, 2000: 115). The eligibility criteria became slightly more relaxed during 1993-1997 in the first round of the Spanish version of the ERS (Reg. 2079/92), which attempted to strike a balance between social and structural objectives. 3,279 farmers participated in the scheme (1.4% of the eligible population). Its distinctive feature remained the strict eligibility criteria regarding farm economic size (minimum of 4 ESUs in 1993, which went down to 2-3 ESUs in 1995 for some regions), the age group (young transferees less than 45 years old and transferors between 60 and 65 years old) and the kin relationship with the transferee (only until first degree for the period 1991-1995). Not all social agents with an influence in the Spanish agricultural sector have supported the restructuring process brought forward by the ERS, which has mainly been defended by

Government bodies rather than farmer unions or the farmers themselves (Paniagua, 2000: 120).

In Finland, 5,569 ERS participants were reported in 1995-1999 (Ministry of Agriculture, 2001). Up to the end of 2000, a total of FIM 960.3 million was paid out in farmers' early pensions (in existence since 1974), of which the EU's share was FIM 368.3 million. Pietola *et al.* (2003) point out that early retirement schemes used singly as structural adjustment tools jeopardise their long-term capability because they create uncertainty over their continuation and has thus obliged Finnish farmers in recent years to complement their obligatory retirement plan with market-led early retirement ones. Pietola *et al.*'s (2003) analysis of a stratified random sample of 963 Finnish farmers born between 1929-1943 and active in 1993 has shown that the probability of farm exit and transfer through ERS decreases with farmer age, unfavourable agricultural output market, farmland area, small farm size and single marital status. In the period under investigation 1993-1998 the marginal utility of early retirement benefits has also been found to be higher for low-income Finnish farmers (Pietola *et al.*, 2003) whose pension levels depend on the compulsory insurance fee they have paid during their working life. As Pietola *et al.* argue (2003: 114), "price and subsidy changes in the period 1994-1998, which were caused by Finland's entry into the EU (1995), jointly decreased the probability of transferring the farm to a new entrant by two-thirds".

In Norway, as part of the annual negotiations between the farmers' unions and the Government, an early retirement pension scheme was introduced in 1999. The aim of the scheme is to ease the transfer of farms to the younger generation where agriculture and forestry have been the main source of income. The early retirement pension scheme was introduced nationwide without allowances for regional differentiation. The restrictive regulations involve the transferor's age (62-67 years old) and his/her income from agriculture and forestry for the last 15 years. In case of early retirement pension payments for two people (farmer and partner), different restrictions apply regarding age (partner must be at least 57 years old), occupation (partner must have worked on the farm for the last 5 years) and income (the couple's total farm income must be at least 50% of their total income). Another important condition of the Norwegian scheme is that the new landowner (transferee) may not be the transferor's partner, thus avoiding deadweight losses under joint management encountered in other countries. An annually-fixed pension can be paid for a maximum of five years (from 62 to 67 years old).

5,409 Norwegian farmers participated in the scheme during the period 1999-2003. Based on statistics regarding the numbers of Norwegian applicants for agricultural subsidies and the number of early retirement

pensioners born between 1935 and 1941, the Norwegian Agricultural Authority has estimated that approximately 30% of the farmers between 62-67 years old have entered the scheme (Statens Landbruksforvaltning, 2003a). Most interestingly, 1/3 of the farmers who participated in the sample survey (88 young farmers and 155 elderly ones) of Norwegian farm transfers between 1986-1998 (Stubberud and Samseth, 2000), opined that the scheme would have encouraged them to make the farm transfer earlier than it had otherwise been. The national evaluation of the uptake (Statens Landbruksforvaltning, 2003a) has considered it to be satisfactory especially on the grounds of the recent upward trend in applications (since 1999). The evaluation report concluded that the scheme works according to intentions (Statens Landbruksforvaltning, 2003a).

### **5.5.3 Regional Imbalances**

The implementation of the EU Early Retirement Scheme has been examined at a regional level in Greece, Spain, France, Ireland, Finland and Norway, with a distinct spatial pattern of adoption gradually coming into view. An attempt to synthesise case study findings across the EU27 will lead to a clear-cut territorial conclusion with all supporting evidence presented in detail below. A main contribution of such synthesis to the existing literature is that farmers' decision to retire early in response to policy incentives is region-specific with farmers in rich farming regions being more likely to exit than those located elsewhere.

In the French case, the highest levels of adoption of the I.V.D. grant (1963-78) were reported to be in areas of least need (Naylor, 1982). It was also noted that "government support, through the CAP, for the maintenance of agricultural prices at levels which encourage small farmers to remain in business also conflicts with retirement policy" (Naylor, 1982: 33). Moreover, areas of part-time farming appeared to have had lower than average levels of I.V.D. adoption (Naylor, 1982: 31).

As Allaire and Daucé (1996) point out, the national average rate of early retirement observed for the period 1992-1994 obscures relatively high regional disparities in uptake in France. There was a rather strong regional contrast in the participation rates between the Paris basin and the littoral Mediterranean areas (around 15% of the eligible population) as opposed to those in the geographical crescent that includes Bretagne, Burgundy and Lorraine passing from the heart of the Massif Central (30%). To this extent, the dairy regions affected the most by restructuring were the most eager participants in the ERS, whilst the cereal regions alongside those of intensive crops remained relatively indifferent to the scheme (Allaire and Daucé, 1996). The rate of early

retirement was not found to decrease with increasing farm size (Allaire and Daucé, 1996). Results observed for the first two years of application of the French agricultural policy of early retirement (1992-1994) show that the ERS rate, 21% on average, was higher for farmers with lower incomes (Brangeon *et al.*, 1996). In France, regional discrepancies were also found in the second ERS rates of farm transfers to young farmers; these were largely explained by differences in average regional agricultural incomes and/or positive attitudes to the relevant institutions (Daucé *et al.*, 1999).

In Greece, 2,500 farmers (out of 8,151; Census 1991) participated in the first version of the ERS in the island of Lesbos, part of the North Aegean Region of particular disadvantage. However, this did not constitute evidence of a changing balance in the island's age-farmer structure because of extensive fraud (Koutsomiti, 2000). Anecdotal evidence also suggests that many farmers accepted participation without being aware of its accompanying regulations which resulted in their losing price subsidies (Koutsomiti, 2000: 54). This created considerable hesitation on the part of the Lesvian farmers towards the successive versions of the ERS.

Also in Lesbos, the second version of the ERS (Reg. 2079/92) attracted a smaller number of participants (96 participating farmers, or 1 per 907.8 inhabitants) than the neighbouring islands of Chios (325 or 1:242.5 inhabitants) and Samos (173 or 1:160 inhabitants) regardless of Lesbos' bigger size and total population. ERS-participating farmers represent only 1.1% of the total number of farmers in Lesbos (1991 census). However, the majority of participating farmers were found to be less than 60 years old because of the massive exodus of the older generations during the first ERS.

Moreover, the total area of holdings attracted under the ERS is only 0.4% of the total UAA in Lesbos (Table 0.12). The location of the participating farmers is of considerable importance with more than half of them coming from the olive-growing areas of the island. The tourist areas in the island, and those of a high share in pasture, are hardly represented in the ERS. The greater part of the agricultural land transferred under the ERS has been planted with trees, especially olives (18.19%), which are considered normal for a district dominated by this type of cultivation (91.99%). The comparison of the average holding size transferred by the early retirees (2.37 ha) with that received by young transferees (1.73 ha) showed that the ERS have contributed to a 72.5% increase in the size of the transferor's holdings in Lesbos. To this extent, the ERS succeeded in quadrupling the size of the Lesvian transferor's holdings, an efficiency gain much higher than that intended, i.e. 15% for the period 1995-1999 and 10% for the period 2000-2006. However, only the small-sized farms have benefited from

the ERS, with only 3.1% of the participating farmers owning more than 5 ha. Moreover, almost half of the transferee's holdings (42.3%) are between 1 and 2 ha, which shows the extent of land fragmentation in Lesvos.

Another important feature of the Lesvos case study was that 70.8% of the ERS participating farmers were women, whilst only 29.2% were men. This reflects the ways in which the average farm household operated in Lesvos in the period under examination, 1995-1999 (Koutsomiti, 2000). Men were involved the most in off-farm employment and thus were excluded per se from the ERS-eligible population (Reg. 2079/92), and this created the necessary conditions for women to take on farmer's occupational status (in official terms). The same trend was reported for the young transferees (62.5% were women and 81.3% less than 34 years old) (Koutsomiti, 2000). This is in striking contrast with the census data (1991) where 70% of the agricultural holdings' owners in Lesvos were reported as male (Koutsomiti, 2000). The explanation for these contradictory characteristics can once again be found in the uses of the ERS as part of the farm household strategy to increase its income as a whole by 'bending' regulations (or misreporting in census returns), maximising pluriactivity and 'juggling' resources. In support of the argument of family bonds interfering with the ERS application, 72.9% of the land transfers in Lesvos were found to be intergenerational (from parents to children).

On a geographical basis, Irish ERS applicants (Reg. 2079/92) were also distributed in a highly unbalanced fashion (Murphy, 1997), with the majority of applicants coming from the traditionally more prosperous farming areas (Leinster 32%, Munster 49%, Connacht 12% and Ulster 7%). A distinct spatial pattern of involvement in the ERS is reported, with more than half of farmland transferred being in the dairy south-west Irish counties, characterised by medium-sized to large farms, strong commercial orientation towards farming, and young Irishmen prepared to farm on a full-time basis. "This was even more evident in terms of the transfer of land than in relation to farmer involvement" (Gillmor, 1999: 81).

"The lowest rates of participation in the ERS were in the west and north-west Irish regions, which are characterised by a higher proportion of unmarried farmers and small-sized, poorer, dry stock farms associated mostly with low-income cattle and sheep grazing activities" (Gillmor, 1999). The age profile of family farm operators over 65 years old also exhibited regional variation (Munster: 20.6% and Connacht: 29.4%). The cost of acquiring additional land to expand holdings and title deficiencies might have been greater deterrents in the west than elsewhere (Gillmor, 1999: 83). To this extent, the most

common means of land acquisition in 1994 (CSO) was inheritance in Connacht, family transfer in Munster and purchase in Leinster (Gillmor, 1999). Thus, the more traditional western part of the country showed signs of stronger attachment to the land and more willingness to transfer land upon death.

Murphy (1997) has also pointed out the presence in the west of Ireland of many part-time farmers alongside significant numbers of elderly farmers who were single and without a readily identifiable successor. These elderly farmers were either too attached to farming and disinterested in retirement and occupational role changes (Murphy, 1997), or they were too old to qualify (under ERS) in their own right and did not have spouses who would be able to qualify on the basis of joint management. Moreover, the small size of part-time farms prevailing in the west did not allow their owners to qualify as an ERS transferee who could not also claim that they practice farming as main occupation (eligibility criterion, 1994-1999).

The geographical distribution of Spanish ERS farmers (1990-1994) was also concentrated with regions of intensive farming and higher than average numbers of young farmers attracting the majority of aid granted throughout the country, such as the example of Castille and León (1,031 beneficiaries, or 31.4% of total aid) (Paniagua, 2000). However, "the farmers attracted to the retirement programme have holdings of insufficient economic size (average: 14.9 ha), considering that the average area of holdings in the region is 31.1 ha, or 23 ha taking into account their UAA alone" (Paniagua, 2000: 116). The great majority of the holdings under the ERS were small-sized (half were less than 10 ha), were owned (75.8% against 59% of the region's average) and were multiply fragmented (each holding is made up of 12.7 plots on average) in Castille and León. To this extent, most of the holdings under ERS for the region (10,876 ha) showed "very little intensive farming, although many are situated in high-yield districts ... Only 4% of these holdings have a production capacity equal to or exceeding the average regional capacity" (Paniagua, 2000: 118). The farm transfer process (mainly by leasing) results in holdings which are double their original economic size but still unable to achieve economic viability (40% of them are still less than 5 ha) (Paniagua, 2000). The great majority of early retirees were married (74.2%), whilst only 19.8% were single and 5.8% were divorced (Paniagua, 2000).

The territorial impact of the ERS in Finland has taken the form of a North-South divide according to Pietola *et al.*'s (2003) study of the likelihood of early exit from farming. Farmers located in Northern and Central Finland were more likely to retire early and transfer their farm to a new entrant (55% larger probability) than those in the South, where EU income subsidy programmes were used substantially less and



the opportunity cost of entering farming remained higher (off-farm employment opportunities).

As it is the case for the EU-15 countries, Norway has also displayed a spatial pattern in the uptake of the early retirement scheme, 1999-2003 (Statens Landbruksforvaltning, 2003a). The NUTS3 regions Sør-Trøndelag and Nord-Trøndelag (in the middle of Norway), Rogaland (in the southwest) and Oppland (in the inland of the region Østlandet) had a higher uptake than the national average. These are the 'strong' agricultural counties with a higher than average employment in agriculture, animal husbandry and farm size (ha or number of animals). By contrast, the regions in the central part of South Eastern Norway (in the Oslo region) characterised by cereal production, off-farm employment opportunities and part-time farming, had a lower than average uptake of the early retirement scheme. Probably the early retirement pension scheme has been more attractive for elderly full-time farmers who had problems of finding a job outside agriculture. The very low uptake of the scheme in Vest-Agder and Telemark (Southern Norway) is harder to explain. Small-sized farms, part-time farmers and a less vibrant labour market prevail in these regions, with the low uptake being more associated with the traditional agricultural communities.

#### **5.5.4 Inheritance Systems**

Rogers and Salamon's (1983) comparative analysis of two French farming communities and two communities of Illinois grain farmers (German American and Irish American) indicated that in the communities favouring multiple-heir systems, regardless of their ethnic origins, early retirement was the preferred farm exit option and matched delicate population/land balances. Partible inheritance was seen as responsible for low celibacy rates, small family sizes and low out-migration amongst the community members. In general terms, equal shares did not appear to provide the multiple heirs with employment and viable holdings but rather help them to avoid permanent out-migration and retain social relationships with the farming community as valuable land-owning members. In this way, multi-heir systems encourage geographic immobility. Nevertheless, inheritance strategies (i.e. legal transfer of rights) vary significantly from country to country or even from region to region. The geographical diversity in the patterns of intergenerational farm transfers is well reported at the European level (Errington and Lobley, 2002; Gasson and Errington, 1993; Tracy, 1989; Lamaison, 1988; Perrier-Cornet *et al.*, 1991). As Blanc and Perrier-Cornet also point out (1993: 322), inheritance practices "cover well-defined geographical areas that rarely correspond to national units".

There have been numerous attempts to summarise inheritance strategies (Blanc and Perrier-Cornet, 1993; Perrier-Cornet *et al.*, 1991; Ross Gordon Consultants, 2000). In particular, "the combination of share-out in kind (possible and actual) and egalitarian practice" is common in many Mediterranean regions and "it fosters the development of pluriactivity, retirement farming and even survival agriculture for the unemployed" (Blanc and Perrier-Cornet, 1993: 322-323). However, diversity remains paramount with certain Greek Aegean islands (e.g. Karpathos) even preserving the ancient 'matrilineal' system of inheritance whereby the mother's property is passed down to her oldest daughter. "In Italy, primogeniture is still followed in the autonomous Tyrol province of Alto Adige" (Gasson and Errington, 1993: 196).

In a different fashion, regions in the Netherlands and Germany are characterised by inheritance strategies based on the need to preserve the unity of the holding and thus favouring unequal shares and full-time employment. However, the concept of splitting farms equally among all heirs (*Realteilung*) has been the prevailing inheritance system in the southwest and some areas of North Germany (Ross Gordon Consultants, 2000). In the UK and Ireland, single and non-compensatory systems are predominantly encountered. A similar inheritance pattern of 'keeping the name on the land' is found in Finland (Abrahams, 1991). The French inheritance traditions stands in the middle with the farm successor paying "compensatory sums to the coheirs, but the land is under-valued on average by half compared with open market prices" (Blanc and Perrier-Cornet, 1993: 324). Danish and Belgian regions follow the French inheritance pattern of equal shares and a single successor with parents rather than coheirs being the transferors.

Single-heir or impartible systems and equal division or strict partible systems are found to retain their position as social determinants of demographic patterns as agriculture becomes increasingly incorporated within the wider capitalist economy (Rogers and Salamon, 1983). If regional demographic patterns tend to correspond to the inheritance strategies preferred, as Rogers and Salamon claim (1983), then the ERS's differentiated territorial impact might also be more correlated to demographic indicators rather than farm succession issues and the farm family cycle itself. Such correlation will be examined in the following section.

The territorial aspect of farm succession has been found neglected in a significant body of work in the UK context, which emphasises the impact of farm family cycle on farmers' decision making and land use (Potter and Loble, 1992, 1996; Gasson and Errington, 1993; Wallace and Moss, 2002). To this extent, previous survey research in England

and Wales has provided evidence of elderly farmers' land management decisions being affected by the presence of a successor (Potter and Lobley, 1992, 1996). In particular, British farmers without successors are much more likely to simplify their enterprise structure, extensify production, reduce farm capacity, develop another income source and to leave dairying in comparison to those with successors (Potter and Lobley, 1992). However, the territorial dimensions of farmers' decision making are given no consideration other than simply mentioning that "twice as many elderly farmers with successors are in dairying compared to those without" (Potter and Lobley, 1992: 324). The regional imbalances identified previously at the EU level in relation to the Early Retirement Scheme and its higher than average uptake in dairying farming regions can be hypothesised to be more associated with demographic matters, social organisation and the absence of young successors rather than sectoral features *per se*. Statistical analysis is required to substantiate this claim across all relevant regions at the EU level.

### **5.5.5 Population Density and Early Retirement**

Fennell has argued (1981) that there is a correlation between the level of urbanisation in a region and farmer retirement. As it is stated "basically retirement is an urban concept and farmers in some regions and countries are more immediately affected by urban values" (Fennell, 1981: 32). However, recent literature focuses on the life cycle-related barriers to farm transfer in the EU, which might not necessarily vary between Member States and regions. At the farm level analysis, the single marital status of elderly farmers and the absence of young successors, or in other words determinants related to the family farm cycle, are treated as being responsible for the cases of lower than average uptake in the ERS.

However, the social significance of work on the farm and the impact of social relationships on the farmer's decision to retire early have been shown to acquire a territorial dimension and be characterised by regional imbalances. This section's argument is that the regional imbalances in the ERS uptake are consistent with Fennell's propositions of an existing connection between urbanisation levels and early retirement, demography and inheritance, and most importantly, population density and farming regions' ERS participation rate.

Comparative regional analysis at the NUTS3 level was carried out for the purposes of substantiating such argument. Among the countries with the highest ERS rates two contrasting NUTS3 regions were selected for each of them on the basis of minimum and maximum uptake levels (Table 0.12). Eurostat-REGIO was the source of all the NUTS3 data collected and the methods of calculation were identical for

all variables included in the analysis with the exception of ERS rate. The numbers of ERS participants and hectares of farmland transferred were a mix and match from different material available at the region level. In the French case, ERS data refer to the period 1992-1994 (Allaire and Daucé, 1995). In Greece, the respective period was 1995-1999 (Koutsomiti, 2000), whilst the numbers of Irish ERS participants referred to 1994-1997 (Murphy, 1997), and the Spanish ones to 1990-1994 (Paniagua, 2000). The numbers of farms for each different NUTS3 regions are national census data (2000).

A closer examination of the Table 0.12 shows that the comparison of the selected NUTS3 regional data and the respective ERS participation rates leads to the following hypothesis: ERS rate increases proportionally to population density. The more dispersed is the population of a region, the lower the number of participating farmers to the ERS. Or in other words, using OECD's demographic definition of the rural (i.e. below 150 inhabitants per square kilometre) as a criterion, the more urban the region the higher is the propensity of the farming populace towards early retirement. Such observation requires further statistical investigation, which was obtained by adding up to 65 NUTS3 regions into the analysis (Greece: Ionian Islands and North Aegean Islands, Ireland, France: Champagne-Ardenne, Basse Normandie, Pays de la Loire, Bretagne, and Languedoc-Rousillon, Norway and Spain: Castille and León). To provide additional data for this hypothesis, the distribution of ERS rate between different types of regions in Europe was also analysed. For such purposes four different typologies were used: Population Density, OECD, Clusters (derived by the ESPON Project 2.1.3.) and LFA (Table 0.13). The results show that, as suspected, densely populated, leading, meso-accessible and non-LFA regions attract the highest numbers of ERS participants.

To summarise, NUTS3 analysis suggests that regions with high population density used as an aggregate proxy of both their inheritance systems and degree of urbanisation provide a cushion for farmers exiting farming. Population density emerges as a territorial indicator of farmers' propensity to early retirement. At the regional level, demography and social organisation appear to assume greater power than economy in addressing farmers' unbalanced age profile and/or production structure. This is an argument that invites in-depth ethnographic or anthropological research beyond the limitations of the present enquiry.

### **5.5.6 Environmental Contradictions**

It has been questionable whether the Early Retirement Scheme that aims at reversing or minimising the small-scale character of farm holdings is beneficial or detrimental on environmental grounds. Only a

few participating farmers have exercised the ERS option of reassigning agricultural land to non-agricultural uses when it cannot be farmed under satisfactory conditions of economic viability. As Gillmor explains for the Irish case (1999: 85), "while transfer of land to non-agricultural transferees and reallocation of land to non-agricultural uses, forestry and ecological reserve creation were permitted under the ERS (1994-1999), there has been little use of this allowance". In this context, the existence of the alternative income sources of both the Rural Environment Protection Scheme and the Afforestation Scheme were found to lessen the likelihood of some farmers participating in the ERS, which has contrary objectives (Gillmor, 1999).

To this extent, the ERS embraces environmental contradictions and wider policy dilemmas in its objectives, which invite criticism or support depending on the different perspectives adopted. One view makes the case that "a change in farm occupancy, which leads to amalgamation of farms, 'is one of the major factors in landscape change from agricultural intensification'" (Caraveli, 1997: 172). In other words, "by transferring land ownership and management to younger fulltime farmers who are likely to work the land more intensively and by promoting farm enlargement, the ERS is more in accordance with the principles of productivist agriculture" (Gillmor, 1999: 85). In the UK context, young farmers (recent farm successors), the so-called "new blood effect", was also associated with dramatic land use change, intensification and consequently, greater environmental impact (Potter and Lobley, 1996).

"According to another view, though, larger farm sizes could 'create conditions compatible with extensive production systems, as small and fragmented farms cannot easily adopt extensive production practices'" (Caraveli, 1997: 172). Under this more Southern European perspective, the solution might be found in "additional incentives to farmers for early retirement and release of their lands from intensive production" (Caraveli, 1997: 167).

### **5.5.7 Conclusions**

In short, there are some important points that can be made in relation to the highly differentiated territorial impact of the Early Retirement Scheme (ERS):

- In the countries with the highest rates of participation (France, Greece and Ireland), the structural effect was little different from that which would have occurred anyway, albeit over a slightly longer time scale (it did not increase the rate of retirement in the long run and did not encourage farm transfers outside the family).
- Considerable effect was only reported in relation to Less Favoured Areas that are characterised by higher than average sensitivity to

the timing of exits from farming (Greece). The time gains offered by the ERS are important in relation to the depopulation problems and the demographic scarcity of farm successors prevailing in LFAs where the younger generation's rejection of farming (as career) due to delays in farm transfers leads not only to alternative employment but also to out-migration.

- A distinct spatial pattern of adoption of the ERS exists (France, Ireland, Norway, Finland and Spain): the highest levels of adoption were reported in areas of least need (i.e. prosperous farming regions) and amongst higher numbers of young farmers. Population density emerges as an indicator of the regional propensity to early retirement.
- There is strong sectoral attraction for dairy/intensive farming regions (France, Ireland and Norway) and/or high yield-regions (Greece and Spain). Cereal regions remain largely indifferent to the ERS (France and Norway).
- A pension income higher than existing earnings emerged as the main explanatory variable for those who decided to participate in the ERS (France, Ireland).
- The ERS adoption rate is higher amongst farm households with lower than average incomes (France, Spain, Greece and Finland).
- Environmental impact is highly dependent on the national context and perspective.
- The absence of a successor and farmer's single marital status decreases the likelihood of exit from farming (UK, Finland, Spain and Ireland).

## **5.6 The Less Favoured Areas Scheme**

### **5.6.1 Community Background**

Prior to the mid-1970s, the regional dimension of European agricultural policy, though recognised and indeed emphasised by the operation of common (i.e. horizontal) price and structural instruments available everywhere within the Community of Six, had not been reflected in Common Agricultural Policy measures. The ill-fated Commission Memorandum of 1968 known as the 'Mansholt Plan' had envisaged some regional differentiation, and the modernisation Directive of 1972 contained the possibility (taken up only by Ireland and Italy in 1974) of operating higher rates of reimbursement in problem areas. However, according to Fennell (1997, p. 253), "the practical response to the needs of the backward regions was completely inadequate".

The entry of the United Kingdom, along with Ireland and Denmark, to the Community in 1973 forced a change in this approach. With the aim of maximising domestic production and thus national self-sufficiency in food, the UK had operated a hill farming policy, in the shape of headage payments and additional capital grants, ever since the Second

World War, and would have been most unwilling to give this up. However, in the accession negotiations, the UK was careful to argue that any new CAP measures of this kind would apply to areas in other countries with similar problems.

Consequently, as early as February 1973, the Commission proposed a draft Directive on farming in mountain areas and in certain other poorer farming areas. Later, it widened the scope of the measure from securing farm incomes to continued conservation of the countryside and to maintaining the population in disadvantaged regions. After discussion over the methods to be employed (annual compensatory payments based on livestock units, and special investment aids), on rates to be paid, and on the areas to be covered (both left to member states to propose within Community guidelines), Directive 75/268 on *mountain and hill farming and farming in certain less-favoured areas* was passed. As explained above, this marked a major change in the nature of the CAP by introducing regional categories. It also represented the initiation of direct annual payments to farmers, an approach which was to expand greatly in the 1990s and thereafter. However, unlike the later direct payments, LFA rates could be altered from year to year, to take account of fluctuating conditions.

Three types of LFA were established: mountain areas where 'erosion' and 'leisure needs' were specified as protection objectives, areas in danger of depopulation, and "other smaller areas" affected by specific handicaps and where farming was needed to preserve tourist potential or to protect the coastline. The Guidance Section of the Community's Agriculture Fund (FEAOGA) reimbursed 25 per cent of the total cost (35 per cent in Italy and Ireland; for a number of regions, particularly in objective 1 areas and other regions of Cohesion countries a substantially higher co-financing was agreed later on,).

The LFA legislation (Directive 75/268) was incorporated into the new Regulation 797/85, modified under Regulation 950/97, and under Agenda 2000 consolidated in articles 13-20 of Regulation 1257/99. Over the years, the area designated as LFA has expanded, partly due to the accession of further member states with a particular high share of LFAs, but also because states have proposed extensions to their LFAs. By the early 1990s, about 55 per cent of the Community (of Twelve) was so classified, a portion which remained equal since then (Dax and Hellegers, 2000, p.182). Within the new 10 Member States the relevance of the less-favoured areas support is even higher than for the EU-15: Whereas up to now on average about 19% of EU support through the rural development programmes is spent on the LFA instruments, the new Member States have planned to concentrate more than 25% of rural development support for LFAs support.

The LFA designation was also used to effect various territorial modifications to other CAP instruments (e.g. modernisation grants, and later co-responsibility levies) by granting more favourable treatment of LFA farms.

Although the LFA scheme is the instrument which addresses the territorial dimension of agricultural production most directly its impact cannot be assessed by the analysis of this single measure. In many respects other CAP measures and influences from other policies and economic trends also affect the farm households decision and thus shape the regional impacts. This aspect has more and more been addressed in the political debate on the policy reform and the view on using the concept of multifunctionality as an option to preserve positive external effects from some typical farming management systems in Europe. The LFA scheme is one of the measures pointing to the need to elaborate this approach to preserve variation of production areas, with its effects on the regional economy and environment (including biodiversity aspects), however a lack of co-ordination between LFA with other systems of transfers to regions and rural areas is assessed (e.g. Swedish case study).

### **5.6.2 LFA Objectives**

The dominant objective for LFA policy is to maintain farm management in less-favoured areas based on environmental principles and provision of other functions beyond food production. The aim is sustainable resource management which includes particularly preservation of soil, water and air quality, maintenance of the cultural landscape, a high degree of biodiversity and protection from natural hazards. As the EU regulation provides a flexible framework, the implementation programmes in the different Member countries and regions set various priorities for objectives. Usually the following aims are formulated by these programmes:

- Maintenance of agricultural land use and the associated rural community through the development of the rural environment;
- Contribution to the settlement and land use management systems under difficult production conditions; and
- Remuneration of the public goods produced by farms in less-favoured areas.

From the analysis of the case studies and various other studies (e.g. Crabtree *et al.* 2003) we can observe that the framework of LFA is adapted primarily at national level to different priorities reflecting following policy objectives:

- general objective of maintaining farming in the LFAs
- income support (e.g. France, Finland)



- compensate income differences between LFA & non LFA (France, Germany, Greece)
- maintain population density (Greece)
- preserve rural livelihoods (Spain)
- contribute to specific function of LFAs (Austria, base for tourism; Finland, impact on arctic landscape)

### **5.6.3 The Application of the Compensatory Allowances in LFAs**

#### **Delimitation of areas**

The areas eligible for LFA support have been classified by national authorities according to the EU framework regulations. Due to the high variation in climate and production situations between the different European regions (North/South) thresholds applied vary considerably between the MS, and even regions. The great interest for the scheme has induced a gradual extension of the area eligible as LFA which has led in some countries to rather modest divergence of income levels between LFAs and non-LFAs (e.g. Swedish and Greek case study, in general relevant for Southern European regions). Nevertheless we can discern,

- in general high coincidence of LFAs with high nature value (HNV) farming systems and low intensity farming systems, but
- that LFA scheme often coincides with extensive farming and small-scale farming under threat of marginalisation, farming is also oriented in some cases towards intensification;
- Low intensive farming systems are under threat from both sides – abandonment and intensification.

#### **Area-based payments**

The main change of Reg. 1257/99 in comparison with Reg. 950/97 has been the move from headage to area-based payments in order to cut off the link with production and to avoid incentives to raise production. Land used for cattle, sheep, goats and dairying is generally eligible; in most countries payments on cropped land are restricted or reduced (e.g. France, Austria, Germany). In Mediterranean countries, where cropping is widespread in the LFAs, some or all of the cropped area is typically eligible for payments. In many countries, allowance rates have been increase under 1257/99 to ensure that there are few losers from the change to an area-based system. The increases also compensate for any additional costs associated with good farming practice.

#### **Degree of differentiation in the payment scheme**

The range of differentiation between low input farming systems and intensive upgrading farming (e.g. livestock numbers) is quite large between the MS. Also many new Member States have prepared their

classification systems before EU-accession in 2004 and are focusing strongly on LFA support (see Slovenian case study): This applies to

- a wide range of indicators (income, labour force input, types of farming etc.) which leads to disparities in treatment and application
- in order to differentiate application of instrument farmers/areas are classified into "groups", "zones" and "scoring systems"
- e.g. horizontal-geographic: Finland, France, Sweden
- more "vertical": Austria, Germany (base: individual farms production base)
- particularly differentiated in Austria within LFAs, particularly (with a refined, detailed scoring system for mountain farms)
- the lack of differentiation is addressed by the Commission's proposal for the rural development programmes 2007-2013 from July 2004, aiming at a review of the classification of the intermediate zones and to lower the maximum payment of the intermediate zones to 150 Euro/ha (EC, 2004).

### **Level of payments**

Specification of the maximum level of compensation in Reg. 1257/99 does not enforce differentiation between types of LFAs, but the level of LFA subsidies varies considerably between different countries and regions (Dax and Hellegers, 2000; Court of Auditors, 2003), reflecting the priorities of the MS, criteria and approach used. Criteria for allocation of payment include: age of farmer, type of area, type of cultivation, with

- considerable divergence of average payments per hectare and holding, between "northern" (more) and "southern-med" (less) MS
- In the south resources within the RD are focused more on modernisation schemes and improvement of processing and marketing structures;
- small structures of farms in the south often beneath the limit of eligibility
- modulation or limitation of payments or farm size (ha) eligible for payment in some countries.

### **Good farming practice (GFP)**

Member States have established GFP codes that differ substantially in their content and complexity depending on the environmental issues present and the farm practices that they wish to prevent. In some countries (e.g. Germany) there is a set of national environmental legislation and the LFA GFP adds supplementary measures. The French GFP code appears to be the lightest and consists mainly of regionally-defined limits on stocking rates (Crabtree *et al.*, 2003). More commonly, the codes comprise rules relating to fertiliser use (mainly nitrogen application levels and restricted periods), disposal of farm

manure, soil protection and restrictions on chemical use. It is criticised by the Court of Auditors (2003) that there is “no verifiable, clear consistent definition of GFP. Up to now no comprehensive study has assessed the codes in relation to their effectiveness in limiting environmental damage though monitoring is been installed and should allow to address the issue in the future.

### **Further aspects on regional differences in application**

Although the co-financing rates show considerably higher levels for Southern European countries the up-take of compensatory allowances has been particularly weak there. The different implementation and use of the measure is reflected in the statistics of the up-take showing marked differences between Member States. In some countries like Italy, Germany and Spain the regional administrations are responsible for the running of the scheme and adapt it to local circumstances. Thus national averages have to be differentiated for the regions and types of LFA (mountain areas and other LFA). Whereas in total a considerable number of more than 1 million farm holdings benefits from the scheme which represents a proportion of those holdings in eligible areas of 45% (CEC, 1997, p. 55) the participation of holdings varies from between 84% to 99% in most northern member states to 9% in Italy.

The main reason for the lower proportion of farmers receiving aid out of the total number of farmers in the LFAs in the countries of the South is inherent to the concept around which it has been built (Terluin *et al.*, 1995). The orientation of the compensatory allowances scheme on headage payments made it obviously more applicable in regions which focus on livestock-production, including Ireland and the UK, but also Greece. In particular, the small structure of farms in the South with many farms of a size beneath the eligibility threshold excluded a large proportion from this payment. In spite of the fact that the minimum limits for the granting of aid in these countries has been lowered many farms are not eligible, e.g. in Italy, where 29% of farms have less than one hectare in size. Moreover, the difference in the levels of payments for livestock and crop production disfavour the application of the scheme in regions where permanent cultures and arable land have a significant proportion in land use. The difference is most outstanding between mountain areas in the North and the South: Whereas in the North arable land and permanent cropping is of no relevance in mountain areas (and limited one in other LFA), it is a marked feature of land use in the Southern LFAs.

Another reason for a lower commitment of Southern Member States can be found in the focus of allocating funds on modernisation of holdings (Reg. 2328/91), improvement of processing and marketing structures (Reg. 866/90), and less on compensatory allowances. The different priorities identified by Member States and the great variety of

policy implementation, including modulation of payments etc. lead to considerable differences in the uptake which are not to be explained by structural differences alone. Factors of importance, among others, include:

- Although the average payment per beneficiary holding showed a high variation between Member States in the 1990s, the divergence even increased and it ranges now between 800 and 7,000 Euros. In the regions most concerned LFA support achieves up to about 40% of farm income (Crabtree *et al.*, 2003, p. 54).
- The same diversity in the uptake of the payments does not only affect the level of payments per beneficiary holding but also the proportion of beneficiaries with regard to all holdings in eligible areas. This proportion varies from 9% in Italy to nearly a total coverage of farmers in some northern member states (Ireland, Netherlands, United Kingdom).
- The implementation of the scheme by Member States and regions greatly affect the uptake and budget spent for the measure: Whereas some countries do not modulate the payment according to the size of the holding, in others provisions exist to differentiate grants according to type of production, number of productive units, stocking rate, maximum payments or revenue of the farmer.

#### **5.6.4 Interaction of LFA with other RD and CAP Instruments**

The second pillar includes a relatively small proportion of total CAP funds, but the decoupling process has opened agricultural policies to overall rural development and could facilitate turning some of the natural handicaps of mountains and other LFA into advantages: for instance, cultural heritage, landscape, high-quality products, diversification (Nordregio, 2004). As the maintenance of agricultural land use in these areas is more important than production, a number of other policy instruments are relevant in supporting these aims, including:

- agri-environmental programme
- other RD-measures (investment, setting-up premiums etc.)
- market premiums and compensatory allowances (CAP-regime)
- other systems of transfers to rural areas

In a rising number of regions the important role in maintaining multifunctional cultural landscapes is addressed explicitly in programmes including various instruments (see definition of 'multifunctional agriculture' in Switzerland in 1996; rural amenity provision in mountain areas of Austria, OECD 1998b, and e.g. initiatives of Alpine Convention).

Other instruments may exercise an effect in both directions: positive as supplement and reinforcing activities or adverse effects (trade-off of objectives):

- contraproductive side effect of the CAP premiums and compensation allowances – incentives for production (overgrazing) (Beaufoy *et al.*, 1994)
- sectoral/commodity instruments are not able to cope appropriately with the needs of LFA – mainstream CAP support is not oriented to extensive farming system (Dax and Hellegers, 2000, Swedish case study)
- low agricultural incomes and less developed regional economies in LFAs goes often hand in hand, therefore cross sectoral approaches are essential;
- lack of co-ordination with other systems of transfers to rural areas (Swedish case study)

### **5.6.5 Impacts**

#### **Land use – environment**

Initially the prime focus of LFA policy was not on the impact of agriculture on the environment. Hence the criteria for designating LFAs are intended to reflect the degree of disadvantage for agricultural production – they are not environmental criteria (Beaufoy *et al.*, 1994). Nevertheless there is a great overlap of LFAs with regions of High Nature Value farming systems. Overall it can be assessed:

- environmental impact relatively minor in the short term, with no stringent, conclusive evidence about the impact of LFA on the environment, only contextual interpretation; (Dax and Hellegers, 2000)
- but assumed to be substantive in the long-term, such as maintenance of farming structures and land use, underpinned by analysis on regional trends of mountain farming over the 1990s (Dax, 2002b)
- in general, low intensity farming systems mostly are situated within the LFAs – but this means not that these areas are accompanied automatically by environmentally friendly cultivation (Beaufoy *et al.*, 1994);
- farms within the LFA vary greatly in their conservation performance (Beaufoy *et al.*, 1994)
- the LFA scheme even may encourage extension of farming into fragile areas and valued habits and provide incentives to maximize livestock numbers on a holding (overgrazing) (Buckwell *et al.*, 1997; Baldock *et al.*, 1996)

A European study hence concluded that “statistics seem to indicate, that for the EU as a whole, farmland abandonment and conversion to other uses slowed down during the 1980s and early 1990s as compared

with the 1960s. This can be explained partly by support levels under CAP" (Baldock *et al.*, 1996).

### **Farm incomes**

LFA scheme provides a substantial contribution to farm income. According to the described differences in application this effect varies considerably. Case studies have shown that it attains a significant level of more than 10% in many regions, including Austria with 19%, France 1-15% (for simple LFAs) and 22-38% (for mountain regions), and Finland 42% (Crabtree *et al.*, 2003, p.54). Further aspects are:

- Even if the level of subsidies varies considerably between different regions within the community (Dax and Hellegers, 2000; Court of Auditors, 2003) it contributes significantly to the income of low intensity farming in many areas (Beaufoy *et al.*, 1994);
- other social transfers and benefits which are used by the agricultural holdings must be taken into account, too (Swedish case study);
- The contribution of compensatory allowances to farm income has increased considerably over recent years in some countries with major LFAs (e.g. Austria, France). This has helped to decrease the income gap between mountain farmers and non-LFA farmers in some situations (Dax, 2004). In some MS (Portugal, Spain, Greece and Italy) (Greek case study, Baldock *et al.*, 1996) it has only a modest contribution to the the income of farm households.

### **Out-Migration, social issues**

It is often argued that out-migration would have been higher without support schemes like LFA. The impact on amenity provision and landscape development has an effect on the overall regional economic activities, and particularly in areas with high tourist potential are highly relevant for regional performance (Dax, 2004). A recent study on the European mountain areas (Nordregio, 2004) reveals that different processes of dempographic change are taking place, the general trend the depopulation in mountain areas is higher than in lowlands. Yet in north and central Europe there is a stable or even positive population development, whereas in eastern Europe depopulation is the norm (Nordregio, 2004, p.V). However, the direct impact of agricultural policies on these trends seems to be limited. Other case studies (e.g. from Sweden and Austria) support that out-migration is less rapid or similar for LFAs compared with non-LFAs.

However, it is made clear that no simple evaluation of the impacts of one measure among a series of CAP measures and other relevant policy instruments can be utilised. Hence the measurement seems more clear on the significant influence on land use development, with regard to a slowing down of abandonment of land, with consequences on the decline rate of agricultural population following from that.

### 5.6.6 Conclusions

*On impacts:*

- The spatial differences of European agriculture are reflected in the application of LFA scheme. In contrast to what one would expect from a compensation measure the application of the scheme is largely correlated to the degree of farm net value added, i.e. higher CA are applied in more prosperous countries, and in "poorer" countries just a low level of CA is achieved. The lower commitment of southern Member States is partly due to the prevalence of arable land and permanent cropping in the LFA of the South (whereas the scheme is largely oriented towards livestock farming) and the focus on modernisation schemes and the improvement of processing and marketing structures (TIR, map 4.8,p.94; Dax and Hellegers, 2000, p.184ff.).
- A major reason for the spatial distribution of funds is the reference level which is set at the national level, and not at the European level which implies that differences between Member States remain unchanged.
- The steady extension of the LFA area over the decades of application reflect the difficulty to adjust the border of LFAs, and gives rise to further discussion on the criteria of delimitation and internal differentiation. The review of the intermediate zones as proposed by the Commission in July 2004 will address this issue. As the extension has been partly accompanied by an increase of overall grants, at least in some countries, the support level per unit did not reduce.
- The recent changes of the LFA scheme had not only an impact on the farm management itself but also on the farm income. In several countries the changes were cushioned by an increase of CA funds and thus had a positive impact on farm income in LFA. At least for several countries this effect can be analysed (Austria, Dax, 2004; Hovorka, 2004; Finland, France, Germany, Spain, etc., Crabtree *et al.*, 2003).
- There is a strong linkage to high nature value (HNV) farming systems and overlap is quite marked. The existence of HNV farming systems in these areas point to their beneficial role for nature conservation and biodiversity. These farming patterns are however highly threatened by impending marginalisation processes which is particularly relevant for peripheral situations, including regions of the new Member States.

## **5.7 The Community Initiative LEADER**

### **5.7.1 Introduction**

The LEADER programme, started in 1991, is the EU Community Initiative designed for the development of rural areas. LEADER is financed by EU structural funds and designed to help rural actors improve the long-term potential of their local region. Its approach looks for innovative strategies for development of rural areas. The core elements of the programme are the preference towards integrated regional development strategies against sector specific measures, the requirement to focus on the participation of local population and the intensive cooperation and networking in rural development activities.

The LEADER programme is now in its third generation. LEADER I marked the beginning of a new approach in 1991 to rural development policy, which is territorially based, integrated and participative. In many aspects LEADER I was a pilot scheme which led to a "reconsideration of traditional delivery systems for rural development support" (Dethier *et al.*, 1999, p. 179) at national and regional levels. In LEADER II (1994 – 1999) this approach experienced a considerable expansion with an emphasis on the innovative aspects of projects. In that period the number of LAGs has risen substantially and implementation affected a number of areas almost five times greater than in the first period. LEADER+ (2000 – 2006) continues its role as a laboratory for the emergence and testing of new methods of integrated and sustainable development combining an endogenous approach with an approach of cooperation, networking and mobilisation. It has a strong focus on partnership and networks of exchange of experience.

A number of cases has been analysed in this project in more depth to highlight the impacts and linkages to CAP. This will be particularly important with advancing with mainstreaming of the initiative.

### **5.7.2 LEADER Method - An Innovative Approach**

LEADER is based on seven major components which are briefly outlined below. The combined application of these LEADER features are referred to as the "*LEADER method*", a method which concentrates on local, trans-local and vertical features. Differences to "mainstream" Structural Funds programmes are conceptualized as follows (ÖIR, 2003):

- *Area based approach*: The development is focused on a specific territory. The better use of endogenous resources, the horizontal integration of local activities, the strengthening of common identities and a shared vision for the area are key issues of an area based approach.



- *Bottom-up approach:* Within the bottom-up approach the active participation of all interested people and organisations in planning, decision making and implementation of social and economic development is encouraged. More clearly identified local problems and needs, a better organisation and a greater acceptance of local decisions at various levels are the main advantages of this approach.
- *Partnership approach:* Engine of the local development are the Local Action Groups (LAG) within which rural stakeholders (individual persons or collective bodies - based on a contract binding all partners under the same conditions and for the same purpose) design rural development measures at local level, that best suit their requirements. develop and implement common strategies and innovative measures.
- *Innovation:* The main aim is to give new answers to existing problems of rural development, which provide added value and increased territorial competitiveness.
- *Multi-sectoral integration:* The multi-sectoral integration approach contains both, the combination of activities of different economic sectors and public and private activities in one project, and the strategic coherence between different projects in respect to a common vision.
- *Networking and trans-national co-operation:* The capacity and readiness for collective action, to work for a common purpose within LEADER groups and other independent actors and cross border co-operation between LEADER groups located in different Member States, is viewed as important source for a common understanding and development of rural Europe.
- *Decentralised management and financing:* Apart from Operational Programmes, the Member States were free to choose the intervention mode called "global grant", which is characterised by the transfer of the budget for the local action plan to the local partnership. The local group is entitled to allocate the funds to project promoters according to rules set by the national or regional programme administration.

### **5.7.3 Impact of LEADER+**

The primary aim of the LEADER approach is to develop a more competitive position for the rural region(s) concerned. This aim is pursued in a more dimensional manner and although competitiveness is in the centre the ways to gain better economic performance are variable and can be comprised within the different aims of the regional development plans. In general, the following four aspects are central

for the regional development strategy: strengthening regional identity, shaping the regional image, enhancing participation and co-operation in the widest sense (between local and regional actors, between different sectors, etc.) along with the development of sustainable use of natural and cultural assets of the region. The awareness of considerable assets in the cultural sphere and natural resources and the wish to build on these regional strengths for the economic development and provide a base for the next generations offer a good chance for a more favourable social, economic and environmental development of the region.

- The wide application of the LEADER approach had an impact on many rural regions of EU-15. Other countries, including new Member States have adopted the programme philosophy and created similar initiatives adapted to their specific contexts (see OECD discussion, spread to Latin American countries etc.). The horizontal application of LEADER since the second programming period led to a race of regions to be included in this scheme.
- One of the prime effects was the impact on the quality of the regional development process. The approach turned the attention to enhance local partnerships and focus on the endogenous local/regional development. With on-going experiences there have been adaptations to the strict orientation on small-scale issues, enlarging the regional development considerations to issues of trans-regional co-operation and integration of economic development into the larger spatial economic tendencies.
- The effectiveness of the initiatives is largely dependent on the institutional framework of the region, and its understanding of its role and development potential. This has been described as the "institutional thickness". Local/regional partners and institutions mostly have to undergo a long-term process to achieve substantial effect which are greatly reliant on the level and type of co-operation, and many items summarised as social capital available in the regions.
- LEADER has achieved to raise awareness on these intangible factors of rural development, and provided a forum to prepare and enhance rural development strategies and initiatives.
- The actual impacts are very context specific which has to be expected as the outcome from a highly localised programme, being applied as a type of pilot scheme seeking for innovative processes and combinations of activities for rural development.
- In most cases participation could be raised substantially within the regions. This has also been communicated as one of the particular positive outcomes to other regions and people from outside. The

detailed issues and commitment of regions is affected by national influences and the support being provided by the network structures for the LEADER initiative.

- The overall effect therefore lies particularly in strengthening the development of regional identities and strategies which is the prerequisite for oriented development action of a region. The positive effect on regional economic performance for different types of rural regions can only be estimated through calculations, like number of jobs created, impact on tourism development, or on specific product development and marketing. The high numbers of jobs created revealed in the evaluation studies at EU level indicate the effectiveness of the overall scheme, harnessing the potential of the areas. Linkage to diversification measures of CAP is very diverse and has to be still developed further.
- With regard to the geographical distribution of projects within LAGs there is evidence drawn from the Irish LEADER II evaluation that the geographical distribution in most LEADER regions is uneven. There are tendencies towards local clustering in quite a few regions which points to the pivotal role that towns and villages have in the implementation of local area-based approaches to rural development. In other regions more dispersed patterns are evident but it would seem that this has only been achieved in those areas where a deliberate strategy of spatial targeting was adopted (p. 80).
- The development of LAGs in Austria shows that in the LEADER II period the LAGs were situated within or adjacent to the mountain areas with a population density far below the Austrian average. Comparing LEADER+ with LEADER II projects reveals a considerable extension of LAGs across Austria (from 31 to 56 LAGs). The LAGs which are still located in the more peripheral regions have grown in number and extent towards the main towns. This development may lead to the situation that the influence of and concentration towards cities will grow but at the same time provide a chance to build up and strengthen the relationship between urban and rural areas.
- LEADER activities contributed to the sustainability of development processes at the local level. In Austria many LAGs already constituted under LEADER II are again part of LEADER+ and also products and instruments acquired and developed under LEADER II are still available (e.g. Cheese Route Bregenzerwald). In other cases where partnerships have ceased their activities within the programme the importance of local partnership is still tangible and many new partnerships, local development agencies and cooperation structures have sprung up and contributed to the diversification and dynamism of rural territories. LEADER thus has

provided a particularly important phase of institution building for the regions (Koutsouris, 2003).

#### **5.7.4 Conclusions**

The evaluation studies (of LEADER II mid term evaluation of LEADER+) suggest that the initiative has a considerable impact on the development of the regions though *budget* is rather restricted compared to mainstream programme instruments.

Ex-post evaluation of LEADER II summarises the programme both as efficient and effective. It proved to be *adaptable* to the different socio-economic and governance *contexts* and applicable to the small scaled area based activities of rural areas. It could therefore also reach lagging regions and vulnerable rural territories. LEADER activities induced and conveyed responsibility to local partnership linking public and private institutions as well as different interests of various local actors to a common strategy. A profound change from a passive to an active attitude could be achieved among many local actors. In countries with a long standing tradition of pluriactivity agricultural diversification served as a basic pattern for multi-sectorial strategies, often in combination with rural tourism. A good example for the multi-sectorial approach based on agricultural products and rural tourism is analysed in the Austrian LEADER case-study.

In a series of Member States like in Germany many of the LEADER projects focused mainly on environmental measures trying to protect and further develop existing natural capital. The building up of partnerships and common regional activities like "Nature Park Uckermärkische Seen" or projects ranging from regional marketing, renewable energy or agricultural pilot projects were bound to maintain or develop the sustainable, and environmental friendly use and exploitation of the natural capital. Moreover these activities have been supplemented in some countries (e.g. Germany, Spain) by national programmes which underlines the need for regional programmes of this type within rural regions.

LEADER and its approach has some specific features summarised in the term "LEADER method" which may lead despite of a limited budget to specific outcomes and regional effects. Measures financed by LEADER projects are of a smaller scale and of a more experimental character than other Structural Funds instruments, and they provide a broader range of beneficiaries, especially from the non-profit sector, and female entrepreneurs.

Direct positive effects on employment cannot be easily quantified. An estimation (of the evaluation study) suggests up to 100.000 permanent

full time jobs that have been created or safeguarded in the course of LEADER II. More income have been generated by new employment, more visitors and more value added form local products.

LEADER is not an instrument to change local economic structures or revalue local economy in an extensive way (BMLFUW, 2003). LEADER is rather an instrument to stimulate processes in the local economy than to promote investments. Many core projects do preliminary work in activating rural actors which is the background for further economic activities. The potential of LEADER lies especially in the improvement of intangible factors, in raising awareness, in strengthening strategy and co-operation within the region. This often builds the basis for the provision of better services and more competitive products.

The future integration of LEADER+ into the rural development programming (*mainstreaming*) as outlined in the Third Cohesion Report might have again severe implications on the administration and contents of the LEADER activities. The specific features of the Community initiative should be maintained (and elaborated) in order to use the potential. LEADER II was very effective in creating new links between local actors and stakeholders (re)building trust across contemporary social divides and sectoral points of view. However, the co-operating and the development of a common strategic planning needs time and LEADER issues like multi-sectoral integration, networking and trans-national co-operation between rural areas were often too ambitiously for the LAGs (trans-nation co-operation) or were achieved only by the more advanced groups. E.g. the successful implementation of multi-sectoral integration was rather an effect of certain preconditions and external influences than of LEADER activities, like a favourable administrative context; a thriving and diversified local economy; a viable, dynamic, representative mixed partnership and a strong strategic orientation in the local action plan (ÖIR, 2003, p. 26).

Within the mainstream programming there should be an opportunity for (newly) defined regions to get together, recall their endogenous potentials and explore new ways of development according to the respective situation in the rural area. Especially possibly new founded LAGs in the New Member States will need a space and time for experimenting authentic ways of development.

On the other hand, also more experienced LAGs should be supported to maintain and improve their development structures. The focus could be to support their efforts in the direction of multi-sectoral integration, networking and trans-national co-operation between rural areas, all features which need already existing and functioning internal networks.

## **5.8 Adjustments in the New Member States**

### **5.8.1 Diversification in Three New Member States**

In a recent research project (IDARA, QLRT-1999-1526) the current nature of, and factors affecting, non-agricultural farm diversification have been analysed in three Central European states (Czech Republic, Hungary and Poland) by studying both individual and corporate farms and attempt to assess the appropriateness of the transfer of the West European model (Chaplin *et al.*, 2004).

The empirical evidence presented indicates that the amount of enterprise diversification has been relatively small. Employment diversification is more common, with just under one-half of all farm households having at least one household member engaged in non-agricultural paid employment. Other more detailed analysis of two regions within Poland reveal a considerable regional variation of off-farm involvement and high dependence on regional contexts (Zillmer, 2003). Whereas overall pluriactivity rates seem quite substantive the scope of the effect of larger towns and cities seems to be rather limited, with spatial effects going just to adjacent municipalities. Moreover, the case study region in western Poland, the region Poznan, is more dynamic and structural change more obvious than in Central and Eastern regions, like the other case study region Sieradz.

There is some evidence that enterprise diversification by corporate farms is more likely to lead to the creation of new jobs although much of this activity revolves around agricultural contracting. In all countries agricultural extension and advice has a significantly negative effect on participation in off-farm work. Diversification and off-farm employment is highly linked to the level of general education and the availability of public transport. These infrastructural issues were poorly addressed in EU-led initiatives for rural development, particularly the SAPARD experience has been assessed as a very 'farm-centric' rural development programme (Chaplin *et al.*, 2003, p.75). The focus should be shifted more towards non-farm actors to harness in a more complex way the rural assets.

Programs implemented in Poland through EU funds (pre-accession aid) have started to address the issues of farm adjustment in rural regions. However, prior to EU accession, some elements of these programs predominantly support Western and Northern parts of Poland, whereas in other regions, which are exceptionally poor developed, i.e. East Polish border regions, respective support is lower. Hence, this challenge can only be tackled by way of a balanced policy mix of regional policy and rural development policy, which takes account of economic efficiency as well as social justice, also in their spatial dimension. Thus, the measures and the extent of regional policy within the wider context of political

intervention has to take into consideration regional structural problems and levels of development.

### 5.8.2 The SAPARD Programme

The Special Action for Pre-Accession measures for Agriculture and Rural Development (SAPARD) programme for the 10 Accession Countries of Central and Eastern Europe (the NMSs) was described in Section 2.2.4. Alongside the parallel (but larger) ISPA programme which focused on general transport and water infrastructure, SAPARD was designed to assist the adaptation of agricultural structures and policies towards those of a market-oriented economy and the CAP/RDP, in particular by supporting rural development via creating agencies capable of designing and operating programmes funded largely by the EU. This subsection briefly reviews the allocation and use of these funds in the NMSs from an agricultural and rural viewpoint, followed by a more detailed case study analysis of the SAPARD programme in Poland.

Table 5.7 shows the indicative annual allocations for the ten NMSs over the 2000-2006 programming period; in many cases, these amounts will not have been expended in the earlier years due to delays in agency approval.

**Table 5.7: Allocations for SAPARD and ISPA programmes (indicative annual allocations, 2000-2006)**

Country	SAPARD		ISPA		
	Amount in million Euro	Share (%)	Amount in mio. Euro (min.)	Amount in mio. Euro (max.)	Average share (%)
Bulgaria	52.124	10.02	83.2	124.8	10.00
Czech Republic	22.063	4.24	57.2	83.2	6.75
Estonia	12.137	2.33	20.8	36.4	2.75
Hungary	38.054	7.32	72.8	104.0	8.50
Lithuania	29.829	5.74	41.6	62.4	5.00
Latvia	21.848	4.20	36.4	57.2	4.50
Poland	168.683	32.44	312.0	384.8	33.50
Romania	150.636	28.97	208.0	270.4	23.00
Slovenia	6.337	1.22	10.4	20.8	1.00
Slovakia	18.289	3.52	36.4	57.2	4.50
Total	520.000	100.00	878.8	1201.2	100.00

*Source : AgraFood East Europe no. 216, Sept. 2000, EC 2000, p.9*

SAPARD provides applicant countries with the possibility of funding projects in the areas presented in Table 5.8. Out of the wide range of measures, four were selected as priorities by all applicant countries: investments in agricultural holdings (20% of the total public aid in all

10 countries), processing and marketing (26%), agricultural diversification (11%) and technical assistance. Two measures were taken up by 6-7 countries: rural infrastructure (20%), and environmental protection and maintenance of the countryside (i.e. pilot agri-environment schemes). Of the 9 other measures in the programme, none averages more than 4% of the total public aid. Although the balance differs from programme to programme, in virtually all of the candidate countries the share of public aid accounted for by the three most used measures is over 60% of the total (Wilkinson and Korakas, 2001).

**Table 5.8: Priorities for SAPARD support measures**

<b>Measures (XXX = all countries; XX = 6-7 countries; X = few countries)</b>	<b>Priority</b>
Investments in agricultural holdings	XXX
Improving the processing and marketing of agricultural and fishery products	XXX
Improving the structures for quality, veterinary and plant-health controls, for the quality of foodstuffs and for consumer protection	X
Agricultural production methods designed to protect the environment and maintain the countryside	XX
Development and diversification of economic activities, providing for multiple activities and alternative income	XXX
Setting up farm relief and farm management services	
Setting up producer groups	X
Renovation and development of villages and the protection and conservation of the rural heritage	X
Land improvement and reparation	X
Establishment and updating of land registers	
Improvement of vocational training	X
Development and improvement of rural infrastructure	XX
Agricultural water resources management	
Forestry, including afforestation of agricultural areas, investments in forest holdings owned by private forest owners and processing and marketing of forestry products	X
Technical assistance for the measures covered by this Regulation, including studies to assist with the preparation and monitoring of the programme, information and publicity campaigns	XXX

*Source:* European Commission, 2000; Cunder, 2001.

Other measures, such as support for producer groups, water resources management or forest measures, have only been taken up by some countries with a specific interest therein. Direct payments similar to the LFA scheme are (together with horizontal agri-environmental measures) not elements of the SAPARD programme. Although a number of pilot actions address the need for more integration of local populations into the planning and operation agricultural and rural development schemes and for models designed for the specificity of problems of peripheral areas, experiences are rather scattered and not



led by a strategic approach. In recognising the difficulties of the first experiences with the involvement of local bodies, the financial agreements for 2002 aimed to strengthen the bottom-up approach (CEC, 2002).

Given the early implementation state of the SAPARD programmes in general, it is not yet possible to achieve a detailed evaluation of socio-economic and environmental impacts (see Dwyer *et al.*, 2002). Led by the conviction that the Single Market and the support system of CAP cannot function without harmonised standards and procedures, the EU programmes for support for pre-accession aid focus on facilitating adaptation of national legislation as well as the administrative structures and procedures of the EU acquis. However, this approach leaves little room for national priorities or local bottom-up initiatives. There is therefore strong criticism relating to the focus of SAPARD capacity-building whose emphasis seems misplaced since many candidate countries have a background of strong central state structures but weak local and non-state structures.

However, when assessing the implementation of the SAPARD programmes, the Copenhagen Summit agreement that ten new member countries (including 8 NMSs) could join the EU on 1 May 2004 shortened the programme period of SAPARD for most NMSs, and laid down provisions for programmes of rural development measures to be established as soon as the countries are EU members, including conditions more favourable than those applied to the EU-15 member states.

### **5.8.3 Case Study: SAPARD in Poland 2000-2003**

This subsection is drawn from a longer paper (Dalton, 2004) available on the website of the Arkleton Institute for Rural Development Research (<http://www.abdn.ac.uk/arkleton/publications/index.shtml>), and based on the mid-term evaluation of the Programme which was conducted over the period September to December 2003 and which examined both the Programme and its likely impacts as well as the institutional capacity to deliver the support.

Whereas the Polish pre-accession SAPARD programme built on previous experience from similar national and externally funded support, the degree of change in both the manner and form of support required new administrative systems to be put in place as well as the adoption of the EU principles for development. As such, the experiences of the SAPARD Programme are realistic and valuable evidence of the essential ingredients of successful rural development actions both in the design of activities and in implementation. Above all else, the SAPARD has been a steep learning experience for all concerned. For example,

although subsidized farm credit has a long history with well known procedures and institutions, capital grants are a new way of supporting the sector in Poland.

The main findings are that the uptake of support depends heavily on a suitably designed Programme from several different perspectives, namely the needs that are to be addressed, the ability of the intended beneficiaries to access the assistance, and the capacity of the administrative system to process applications on time. Extensive delays occurred in the delivery of the Polish Programme, due to the time taken to learn about and put in place new management systems, and also due to delays in the uptake of assistance once it became available. These delays reinforced the emphasis on the political objective of spending the funds prior to accession at the expense of achieving the intended impacts of the Programme.

There were two balanced priority axes within the Programme. Priority 1 was to improve the efficiency of the agro food sector, and comprised Measure 1 – improvement in the processing and marketing of food and fishery products - and Measure 2 – investments in agricultural holdings. Priority 2 was to improve business conditions and job creation, and comprised Measures 3 (development of rural infrastructure), 4 (diversification of economic activities in rural areas), 5 (a pilot agro-environmental scheme), 6 (vocational farmer training schemes) and 7 (technical support). The original financial allocation by measure was a negotiated equilibrium between the different interested parties at the time including those of the existing member states. The allocation of funding by measure also reflected different judgments concerning priority weights, expected rates and speed of uptake. For example, Measure 3, improving rural infrastructure, was rightly predicted to be the measure most easily taken up and thus was given a higher proportion of funds in the first years of the 7 year Programme.

Agrarian interests within Poland can be characterized as those representing the “farm” as opposed to those representing the “village”. Due to the new way that consultation about the design of the programme took place through regional seminars using the new regional government structure, no particular lobby group could claim to have been overlooked. Many of the subsequent changes to the Programme implemented by the Monitoring Committee sought to balance some of these interests as it became clear that expenditure on rural infrastructure was the most readily taken up. For example, after some modification, Sub-Measure 2.3 (incentives to adopt diversification and first stage on farm processing) became the most popular farm sub-measure.

The deadline of submitting the Programme by the end of 1999 was met and was subsequently approved by the Commission in September 2000, with the expectation that the Programme would be enacted quickly. These hopes were dashed when the extent and uncertainties of the required effort to design and agree all the procedures and accredit the devolved managerial and operational authorities gradually became apparent. This process took until July 2002 when the multi-annual financial agreement was finally signed along with the annual financial agreements for 2000 and 2001. The actual result of this process was a rigorous set of most detailed procedures and institutional responsibilities that were formally set out in great detail. The outcome was that the Programme was finally begun on 9 July 2002, but only in part. Notably, Measures 4 and 5 had not begun by November 2003 even though an exhaustive accreditation procedures had been completed for Measure 4.

One commonly held perception was that the application and evaluation procedures and the eligibility criteria of the Programme was complicated and difficult, a fact supported by the slow rate of applications right up until the autumn of 2003. The main concern of the Programme managers up until this point was whether or not the allocated funds could be taken up (absorbed). Decentralised management was also a new experience for Commission officials, especially when the financial procedures of the FEOGA Guarantee Section were adopted despite much lobbying by the Polish authorities. It meant that no advance payments were available and initially at least no multi-annual funding commitments. The accreditation of the management authorities was a long and arduous process. While the needs analysis and the objectives of the Programme were used to design the measures, eligibility and evaluation criteria were primarily driven by the operational requirements. Moreover, the process of changing these procedures is perceived as being so energy and time-consuming that the SAPARD system could be said to be both unworkable and at the same time unchangeable. Despite this, a number of resolutions were passed and implemented by the Monitoring Committee, and, in addition, the procedures have been an effective screen against poorly prepared applications.

In addition to the effort that went into the consultation exercise to provide the basis for the programme, conforming to the principles of the EU structural funds - programming, co-financing, partnership and targeting as well as monitoring and evaluation - resulted in significant innovations. The achievement of national co-financing at a time of stringent measures to control budget deficits is noteworthy. Co-financing by the beneficiaries makes the beneficiaries more responsible for their actions but has been used as a criticism of the Programme and is often assumed to be a reason for slow uptake. The financing problem

were moderated by the greater possibility of paying claimants in instalments rather than simply when the investments have been completed, and also by increasing the rate of grant up to the maximum 50% rate for most measures and sub measures. Total eligibility expenditure maxima were also raised substantially, especially in the case of Measure 1 (food processing).

The application of the partnership principle was boosted by the installation of a regional system of government in Poland in 1999. Each of the 16 Polish regions was consulted in the Programme formulation process. While more direct involvement in Programme management by regional authorities was not implemented, the regional steering committees have a role in the determination of the selection criteria for Measure 3 and in the ranking of these rural infrastructure projects (which became meaningful in that the number of applications for this measure exceeded the funds available). In addition, in view of the divergences between regions, a national steering committee advised on regional funding envelopes so as to ensure that resources were not allocated unfairly.

The Polish SAPARD agency (the Agency for Reconstruction and Modernisation of Agriculture, ARMA) established regional offices with a total staff approaching 400 devoted to the SAPARD Program plus a further 200 staff in the head office. There is a single paying agency, which in view of the costs of accreditation is a sensible and cost-effective situation. Some functions such as the evaluation of Measure 2 projects were outsourced to the National Agricultural Advisory Centres (NACARD) – the National extension service. Targeting was used extensively in the design of the measures, although not in any significant geographic way.

In the Polish agricultural budget for 2002, the value of these subsidies amounted to some 236 million Polish zloty or roughly 59 million euros. These subsidies were targeted at specific structural issues including many measures similar to those included in SAPARD, including infrastructure, the modernisation of processing plants and rural job creation, but also support for organic farmers and for young farmers to establish farms. The World Bank rural development programme includes a micro credit scheme although one component also includes loans for infrastructure in objectively identified regions. Thus, at the start of the Polish SAPARD, there was a body of expertise concerning public assistance in the areas where SAPARD was focused, albeit on a different basis and with different procedures.

The analysis of needs in the Operational Programme pointed up the duality of the Polish agricultural situation, i.e. the poor agricultural holding structure and low incomes from agricultural activities. Financing

problems faced by farmers also featured strongly in the arguments for assistance. The need to adopt the *acquis* in the dairy sector given the drive for quality milk was given special emphasis and lay behind the special dairy sub-measure (2.1) Animal welfare enhancement needs were the main basis of other agricultural sub measures. Given the constraint of oversupplied agricultural markets both in Poland and the EU, support was also justified for the production of non-traditional enterprises and for adding value on the farm through first stage processing. This sub-measure (2.3) proved to be by far the most popular in Measure 2.

The most important reason for supporting the food processing sector was the need to have in place by accession plants that are licensed to have reached the standards of the *acquis* to trade their products in the whole of the EU. This was a sizeable and expensive task in a sector with low profitability and much concentration and structural change taking place against a background of dynamic changes in the nature of the demand for more processed and higher quality food.

The poor state of rural infrastructure was a central argument for Measure 3 as shown by a variety of indicators of the availability of roads, water supplies, drains and waste disposal facilities. The poor situation for social capital, especially for farmer education and training underpinned measure 6, while the severity of the unemployment and under employment situation gave strong evidence for employment creation measures to be supported in measure 4. This was one of the more important rural urban disparities addressed within the SAPARD Programme.

The agro-environmental measure was for a pilot scheme along with a forestry sub-measure and was justified on the grounds that some experience of these accompanying measures prior to accession would be most valuable after accession when they would need to be made available on a national basis.

Targeting of beneficiaries was a major focus in the Programme as the expectation was that insufficient funds were available for the potentially very large number of beneficiaries. Thus the focus on the *acquis* defined to a large extent the need to support specialist farms in their adoption of more appropriate buildings and facilities for keeping animals and for the storage and disposal of manure. Viability criteria featured strongly in conditions for eligibility including the intention to develop, an upper age limit of 50 years which was subsequently raised to 55 and proven experience of farming and/or qualifications to do so. Viability checks were also important in the selection of eligible food processing entities including size constraints and information on the

security of their sales, their financial situation and the quality of their management.

Rural Gminas (local communities) and associations of Gminas were the targeted beneficiaries for measure 3 on support for infrastructure. Local municipalities could also be beneficiaries for the restoration and enhancement of local tourist facilities in measure 4. Farmers and their family members plus rural entrepreneurs were the targeted beneficiaries for employment creation initiatives.

Despite the big differences in farm and food processing business size and their very different financial situation single measures for all types of business were put in place. Similarly, despite the evidence of the strong urban and rural distinction in welfare no direct provision was made in measure 3 for this situation. However, a system of financial allocations for each region (regional envelopes) was designed in order to prevent funds being allocated in an "unfair" way to any single region and criteria were agreed on the basis for this allocation.

From an administrative viewpoint, the appointment, establishment, accreditation and activation of the necessary institutions proved to be greater tasks than ever anticipated. Unfortunately this process did not begin until after the Programme was agreed which meant that obvious institutional constraints were not taken into account in the Programme design. For example, Measure 4, which had large numbers of small potential applicants, would have been difficult to service even if it had been launched at the same time as the other measures simply because of a lack of staff and the exhaustive and detailed nature of the application and approval procedures.

The evaluation also pointed up a lack of balance between the various issues in programme management concerning possible malpractice and administrative costs. All projects irrespective of their size were to be visited twice which took up about 30% of total processing time. Evaluation of measure 2 was simply a paper exercise where the evaluator was not allowed to visit the farm. There was no provision for a simplified application process for small amounts of assistance in any of the measures.

Another example of "micro management" was that in the procedure to change procedures all suggestions were referred to the EU Commission irrespective of their importance and the principle of delegated management. This resulted in both delays and the situation that even the most sensible proposed change was perceived by staff as too difficult to achieve. The main losers from this failing were ultimately the beneficiaries as the whole Programme was delayed. Indeed a significant omission from the multi-annual financial agreement was a

procedure to ensure that such delays in the whole Programme did not occur. No Institution seemed to have the responsibility of making sure the Programme kept to a time schedule even though it is easy to show that such delays are very costly.

In conclusion, the main achievement of SAPARD in Poland was that it was successfully implemented despite a huge and steep learning curve for all concerned. Given accession in May 2004, 4 years of funding were almost committed within a period of 20 months. One of the explanations of how this was achieved was the fact that there was considerable experience to build on from previous initiatives of this type and a few key staff involved in these was recruited to lead the SAPARD effort. However, to simply adopt this measure of success ignores the fact that some important parts of the Programme were not implemented, which inevitably warped the coherence of the plan. Moreover, the main observed goal of the Programme was to spend the available funds. Achieving the goals of the Programme was not so important. The information required of the monitoring system and the information used and decisions made by the Monitoring Committee reflected this emphasis. In an effort to spend the funds, the Programme was steered towards meeting more towards the private interests of beneficiaries. This fact is very strong evidence for planning the contents of a Programme both according to needs and implementing capacity. The Programme also demonstrated the importance of considering the implications for processing capacity when changes are made.

Delay in starting the Programme was another main weakness of the Programme implementation. Such a delay is almost inevitable if time objectives are not set and responsibility for them is not clear. The evaluation showed that the emphasis was to establish and operate properly, correct procedures irrespective of how long they took. A more balanced approach would have been beneficial.

A re-examination of the basis of the Programme design highlighted the duality of both the Polish agro-food sector and Polish rural areas. Support, however for both large and small businesses was contained in single measures and submeasures and resulted in confounding of the goals of equity and efficiency. The importance of providing for the needs of young rural people was not taken into account in the Programme and the measure that might have contributed most (Measure 4) was not implemented until November 2003.

Omnibus measures with unclear and multiple objectives most commonly benefited those who were well informed and who had the resources to overcome the significant institutional and financial barriers to make successful applications. Only on the case of Measure 3, where

officials of local authorities were responsible, was this not the case. If programmes are to support projects on both efficiency and equity grounds, then designing and implementing separate measures may best achieve this.

The basis for much of the assistance available to local authorities (Gminas) was on a regional basis unsuitable for designing rural development programmes. Targeted projects for disadvantaged rural communities may well involve describing the characteristics of very small communities (NUTS4 or 5 level)

The uptake of support was restricted by institutional processing capacity and an implementation system which was not beneficiary-friendly. Some SAPARD funding was not sufficiently attractive (animal welfare and farm manure storage and food processing) and conversely some support brought about almost twice as many applications as could be funded (rural infrastructure). Balance is also necessary between central and more local management. SAPARD is implemented by a single central agency and all the procedures were subject to central approval. Future larger Programmes will necessarily require more devolvement of responsibility that can be built on the experience of this Programme. The development and retention of staff in this and subsequent Programmes will be an important determinant of performance.

## **5.9 Conclusions**

The influences of the CAP/RDP can be examined at a number of levels and in a number of contexts, some of which have been covered in this chapter. However, in all cases, it is necessary to bear in mind the effects of wider and often non-policy developments, such as national economic developments and socio-cultural changes. This is especially true for the New Member States, where, in any case, for the period under discussion, the CAP/RDP had yet to be fully applied. In these countries, the EU's agricultural policy had a direct influence only through the pre-accession SAPARD instrument, and indirectly through effects on trade between the NMSs and the EU-15, and anticipatory farm and agri-food investments, all taking place within major economic and social 'transition' adjustments. Even in the EU-15, farm households were subject to powerful external influences, such as urbanisation trends, the spread of labour-saving farm technology, and improved rural communications.

The basic lesson from the Irish case study may be summarised in the following terms. The territorial impacts of agricultural and rural development policies vary with the aims of such policies but are also



differentiated according to the resource and structural characteristics of regional economies. Secondly, there is a longer-term technico-economic process of agricultural restructuring onto which policies are layered. Policies may cushion the more deleterious impacts of this on farm households (e.g., by supporting incomes) and thus slow the rate of structural change, or 'go with the flow' and facilitate desirable adjustments (e.g., by promoting alternative forms of land use). Thirdly, policies, when considered in their totality, may have inconsistent outcomes – as for example when farm price policies and even direct payments have territorial impacts that run counter to cohesion objectives.

It is clear from the Irish case study that in the more commercially oriented farming regions a comprehensive range of agricultural policies and/or farm-centred rural development policies does not provide a guarantee of rural demographic viability. There is a need for greater complementarity between agricultural policy measures and policies for broader regional development focused on the specific conditions of the different regions.

The conclusions of the analysis of four major CAP/RDP instruments in Sections 5.4 to 5.7 have been reported above. It is noticeable that, whether mandatory or not, these instruments have been applied with different levels of enthusiasm in different Member States, generally according to national priorities and budgetary capabilities. Where the EU instruments have been limited in scope and require individual farmer application (agri-environmental schemes, early retirement), their influence has been constrained, and more effective physically (i.e. on the environment) than socially (i.e. on farm household adaptation). The LFA scheme has been very broad in scope (objectives, area, types of support) and its territorial effect is thus best seen as a rather general form of income support in (mostly) areas of high nature value. Though limited in budget terms, the LEADER scheme has been far more adaptable by Member States, but appears effective where taken up by active local enterprise.

Finally, examination of the SAPARD instrument in some NMSs suggests that this initial effort to implement CAP/RDP-type policies in these countries faced major problems of both administration and take-up. Where national governments had prioritised certain areas (e.g. farm modernisation, food processing) and applicants (farmers, firms, local authorities) could make valid applications, the EU funds were probably applied successfully, but territorial considerations appeared to have played little part at this early stage. Moreover, the objectives of SAPARD (efficiency, equity, targeting) were unclear, so that assessment is difficult.

The general lesson to be drawn from these case studies is that the territorial impacts of the CAP/RDP have to be seen against the general background of the countries and regions involved. It seems that "adjustment" can be accelerated by means of these policy instruments, thus lessening discrepancies between agricultural and non-agricultural sectors, but it may be more difficult to maintain valued environments and social structures against the pressures of modern life and the modern economy, at least through using only farm-centred policy instruments.

## 6 Assessment of the Implications of CAP/RDP Reforms in EU-15

### 6.1 Introduction

Within the ESPON Programme, a distinction is made between *incidence* and *impact*, the latter being defined as the effect of policies on spatial structures. As TPG 3.1 has pointed out, any kind of territorial impact assessment faces the basic methodological problem of separating the effects of the policy from the effects of other kind of measures influencing the complex spatial structures. In this chapter we seek to achieve this by building on various attempts made by others to model the impact of CAP reforms. Since its inception, the CAP has been under continuous reform pressure almost, but, as described in Chapter 2, the major reforms actually achieved until 2003 were as follows:

1970s:	Agricultural structural measures, e.g. LFAs
1984:	Milk quotas
Early 1990s:	Lower support prices, direct payments, set-aside, "accompanying" agri-environmental measures
2000:	Further switch from market support to direct payments, and from Pillar 1 to Pillar 2.

Other important elements included the rural and agricultural development components of the Structural Fund reforms in 1988, 1993 and 2000, and the imposition of financial ceilings in 1988 and (as part of Agenda 2000) in 1999. More recently, the completion of the accession agreements for 10 NMSs included statements as to the adoption of the CAP in these countries. In the SAPARD fund, Agenda 2000 already involved pre-accession aid targeted towards the goals of EU rural development policy.

The most noticeable recent proposals for further reform of the EU's CAP and RDP have been:

- The recommendations of the 1996 Cork Conference, which have not been fully implemented since then ([http://europa.eu.int/comm/agriculture/rur/cork\\_en.htm](http://europa.eu.int/comm/agriculture/rur/cork_en.htm))
- The initial proposals by the Commission and others (e.g. certain Member States) for Agenda 2000, which were considerably altered in negotiations and thus only partly applied
- The July 2002 Mid-Term Review proposals of the Commission (COM (2002) 394), and the subsequent Commission Memorandum on "A

Long-Term Perspective for Sustainable Agriculture” and Regulation Proposals (COM (23) 2003), notably the proposal to consolidate direct payments into a single decoupled farm income payment

- The integration strategy for the new Member States, concerning the gradual increase of direct payments and the production quota levels for the new member countries after accession in 2004 (SEC(2002)95 of 31.1.2002), and the current negotiations on EU enlargement; and
- The proposals made by EU and its trading partners within the WTO framework, and on a bilateral basis (e.g. ACP and Mediterranean countries).

In addition, there are a number of other specific and general proposals for CAP/RDP reform, from national and regional governments, from social and economic partners, and from policy analysts.

From the perspective of the ESPON project and programme, the following questions arise:

- To what extent will these CAP reform possibilities address the cohesion objectives of the EU?
- Given a certain tension between different EU objectives, do these CAP/RDP reforms represent a better balance?
- What relationship will and should there be between the implementation (including delivery mechanisms and assessment) of CAP/RDP and cohesion policy at territorial level(s)?
- What is the relationship between the CAP/RDP and the rural aspects of the ESDP, i.e. the promotion of polycentric development?

In July 2002, the Commission brought forward its 2002 Mid-Term Review of the CAP (COM(2002)394) as scheduled in the Agenda 2000 decisions. The Review included a number of CAP reform proposals which were re-stated in more detail and with some modification in the Explanatory Memorandum to the Commission’s Long-Term Policy Perspective (COM(2003)23) for agriculture. In June 2003, the Council of Agricultural Ministers reached agreement on a further major reform of the CAP. This reform seems likely to alter the situation both as regards EU enlargement and as regards the on-going WTO Doha Development Round, which agreed a ‘framework for establishing modalities in agriculture’ on 31 July 2004 (WTO, 2004).

This section summarises existing analyses of these reforms (mainly the original MTR proposals of July 2002, since little subsequent analysis has

yet been reported). It starts in Section 6.1 with a description of the various official reform proposals, and in Section 6.2 reviews a number of published "impact" studies, mainly of the July 2002 proposals, leading to a synthesis and summary of the territorial implications of these reforms in Section 6.3. In Section 6.4 the results of quantitatively analysing at a NUTS3 level some estimates from one of these studies (CAPRI) are reported in detail. Finally, in Section 6.5 the implications of CAP reform for the New Member States in Central Europe are discussed.

### **6.1.1 CAP Reform Proposals: The Mid-Term Review Proposals and Agreement**

Although now overtaken by the June 2003 reform agreement, the Commission's Mid-Term Review proposals of July 2002 and January 2003 are summarised here since they formed the basis for most published analyses (including those reviewed below), and do not differ very widely from the later package. These proposals involved the following main points:

**Crops:** In the July proposals, compulsory long-term (10 years) set-aside on arable land (replacing rotational set-aside) would form part of "cross-compliance" (see below). Support for non-food crops would take the form of a carbon credit, a non-crop-specific aid worth €45 per ha of energy crops up to a maximum of 1.5 Mha. The January 2003 proposals added a 5% cut in the intervention prices of cereals, with an increase in direct payments for cereals and oilseed areas, and a new payment system for protein crops.

**Livestock:** Milk quotas maintained until 2014/15. Agenda 2000 intervention price cuts to be introduced one year earlier (i.e., in 2004) and extended to 2008, with "asymmetric cuts in skim milk powder (-3.5%) and butter (-7%) and an increase in quotas. No specific proposals for beef, etc.

**Single Decoupled Income Payment:** This would replace all existing direct payments to producers, with a number of exceptions (e.g. durum wheat, rice), and be based on historical levels of payment to each farm. Payment would be subject to a number of statutory environmental, food safety and animal health and welfare standards, as well as occupational safety requirements for farmers. This "cross-compliance" should reflect regional differences, distortion of competition was to be avoided by means of a "common framework providing basic implementation criteria" within which Member States would define and enforce standards on a whole-farm basis. A compulsory farm audit was proposed for all commercial farms receiving over €5000 per year in direct payments.

'Dynamic [or degressive] modulation' would reduce all direct payments by 3% per year to reach 20% (the maximum agreed in Agenda 2000). However, a franchise of €5000 of direct payments applied to all farms with up to 2 full-time annual work units (AWUs) plus €3000 for each additional AWU would exempt around three quarters of all EU-15 farms but affect under a fifth of all direct payments. A 'capping' maximum of €300,000 in direct payments would apply to all farms. In its January 2003 proposals, payment totals over €5000 but below €50,000 would be cut by steps from 1% in 2006 to 12.5% in 2012, and by steps from 1% to 19% for payment totals over €50,000.

Rather than (as previously) allowing Member States to spend funds made available by modulation within their own accounts, funds saved by the June 2002 proposals would be distributed from the EU budget "to Member States on the basis of agricultural area, agricultural employment and a prosperity criterion, to target specific rural needs". This was expected to "allow some redistribution from intensive cereal and livestock producing countries to poorer and more extensive/mountainous countries, bringing positive environmental and cohesion effects" (COM(2002)394, p. 23). However, savings from capping would be redistributed according to the amount capped in each country. All such funds saved from Pillar 1 would be used by Member States to reinforce Pillar 2 rural development programmes financed under the FEOGA Guarantee section. In the January 2003 proposals, the first 6% of these savings would be transferred to Pillar 2; the remainder would be used to finance future market needs.

Rural Development Policy would "consolidate and strengthen the second pillar by increasing the scope of the accompanying measures and widening and clarifying the scope and level of certain measures" (COM(2002)394, p. 24). New measures were to include new chapters on food quality and on meeting farming standards, and introduce animal welfare payments into the agri-environment chapter.

The CAP reforms actually agreed on 26 June 2003 involve the following:

Crops: No change in the cereal intervention price, but a halving of monthly increments, i.e. a small effective reduction (but no additional compensatory payments). Minor changes were agreed in the regimes for rye, protein crops, rice, durum wheat, nuts, starch potatoes and dried fodder. A 'carbon credit' energy crop aid of €45/ha is to be awarded, to a maximum of 1.5 Mha.

Milk: The intervention price for butter is to be reduced by 25% over 4 years, i.e. an extra 10% cut compared to Agenda 2000 cut; and that

for skimmed milk powder by 15% over 3 years as previously agreed, i.e. an overall cut of about 20% for milk. Only minor quota changes other than the Agenda 2000 increases scheduled for 2006 onwards. Direct dairy payments (agreed in Agenda 2000) are to be introduced as scheduled (i.e. from 2004), but kept separate from the single payment (see below) until 2008 at the earliest. This implies that the dairy regime is to be maintained in roughly its present form for the foreseeable future.

**Single Farm Payment:** From 2005 (or 2006 or 2007), a single farm payment (SFP) direct to EU farmers will be based on historical (2000-2002) receipts (less 3%) of arable and livestock payments, but independent of (i.e. 'decoupled' from) levels of farm output or resources (land area, livestock numbers, etc.). Eligible land (i.e. land with SFP 'entitlement') is all arable land and grassland, except land on which fruit, vegetables or table potatoes are grown, and land in permanent cropping (short-rotation coppice etc. is not regarded as permanent). This land need not be that from which the entitlement was first established. Member States may redistribute SFPs within regions, e.g. via uniform (flat-rate) payments per hectare, or separate aid rates in each region for permanent pasture and cropland. Existing set-aside obligations will continue. Entitlements may be transferred (e.g. sold or leased, after some use) to those with sufficient agricultural land, within national and possibly regional boundaries.

However, in order to avoid destabilising the present farming structure too much, Member States may retain up to 25% of arable payments, up to 50% of sheep and goat premiums (including LFA supplementary premiums), and up to 100% of suckler cow premium (on various bases). It appears possible that these retained payments may be re-allocated on a somewhat different – e.g. regionally differentiated – basis from that used to date.

Member States may also make additional payments, at national or regional level (but without co-funding), to encourage specific types of farming which protect/enhance the environment or to improve quality and marketing, up to 10% of national sectoral expenditure ceilings (arable, beef, sheep, dairy). The SFPs will then be reduced correspondingly.

The SFP will be linked to the maintenance of standards of environmental care, food safety, animal and plant health, and animal welfare, and the requirement to keep all farmland in good agricultural and environmental condition ('cross-compliance'). Farm advisory services will become compulsory in Member States by 2007, although farmer participation will be voluntary.

SFPs above a 'franchise' level of €5000 will be reduced ('modulated') at a single flat rate of 3% in 2005, 4% in 2006 and 5% from 2007 onwards, in order to finance rural development policy by about €1.2 billion by 2007 onwards. At least 1% will be re-distributed to the Member State, and the rest according to a Commission key, but Member States will receive at least 80% (Germany 90%, the extra for rye regions) of their 'own' modulation funds. New Member States are exempted from modulation and its financial (budgetary) effects until their levels of direct aid aligned with EU-15.

Rural Development Policy will be strengthened with more EU (modulation) funding from 2005 onwards for new measures and/or extra funding for: the environment (with higher Community contributions), food quality, young farmers, animal welfare, and to help farmers meet EU production standards.

Financing: If the CAP budget (subheading 1a, i.e. Guarantee) fixed to 2013 is considered by the Commission likely to be overspent, then direct payments will be reduced, but not to farmers below €5000 (and perhaps smaller reductions for additional, higher, franchises).

## **6.2 Published Studies of CAP Reform Proposals**

A number of 'impact analyses' of recent CAP reform proposals have been undertaken, several by or at the initiative of the Commission. This Section summarises some of these studies and comments on their implications (usually indirect) for European territorial analysis. The first four are reported in European Commission (2003c), along with the Commission's own studies, and all compare the simulation estimates of the situation in 2009 if the MTR proposals were implemented (with no other changes in the CAP or in macroeconomic conditions, but usually with exogenous assumptions about labour, land and other productivity trends from a recent base period) with those of the estimated 'reference' situation for the same year if the CAP were unchanged (except for complete working out of the agreed Agenda 2000 reforms). The results, in percentage changes for physical amounts and prices, and sometimes in Euro for income and welfare effects, are thus 'comparatively static' in nature, isolating the MTR impact from other influences on agricultural performances. None of the models simulate the non-agricultural rural sector explicitly, and several are purely agricultural in nature.

The Commission itself carried out two studies of the MTR proposals, one using its standard set of partial-equilibrium (i.e. agriculture only) dynamic models used for regular market outlook work, and the other using the ESIM agricultural sector model originally developed to study the implications of EU enlargement. Compared to the reference



situation, MTR implementation is estimated in the first study to reduce the area of cereals, oilseeds and fodder crops but to increase that of set-aside energy crops. Beef cattle numbers and output would decline, but prices would rise. Overall, factor income (GVA plus subsidies) would be almost unaffected, if it is assumed that most of the modulation savings are returned to farmers via Pillar 2.

The ESIM analysis of market reform, and decoupling and modulation (in the EU-15 only) of direct payments, also shows a fall in cereal area and output in the EU-15, though a rise in the accession countries. Oilseed area rises, while beef production falls: the decoupling of payments under the MTR avoids over-stimulating the beef sector in the NMSs. In both reports (Chapters I and II in European Commission, 2003c), very little is said about geographical implications of MTR implementation.

### **6.2.1 The FAPRI MTR Study**

The Food and Agricultural Policy Research Institute (FAPRI) of the University of Missouri used a structural model of EU agriculture linked to a 'reduced form' of the full FAPRI model of world agricultural markets. The model is not spatial in any sense, and hence territorial effects are only implied. Comparing reference and MTR results for 2009, the findings for MTR effects in that year included:

- A modest reduction in EU production of most major farm commodities, with a consequent drop in net exports and a slight rise in world market prices.
- A 2% drop in the harvested area of nine major crops, with a marked decline for rye (-15%), and more modest ones for durum wheat, barley, oilseeds and rice. Reductions on low-yielding, marginal land would lead to slightly higher average yields per hectare. The area and prices of soft wheat remain largely unaffected.
- Sharp reductions in cattle and sheep production (-3.1% and -4.6% respectively, with a 12% fall in numbers of suckler cows), but a rise in market prices of 8% and 12% respectively. Dairy cow numbers (constrained by quota) and milk prices remain unchanged.

### **6.2.2 The CAPRI MTR Study**

The CAPRI modelling system was developed at the EuroCARE centre at the University of Bonn and elsewhere as a FAIR3 project in 1997-99. It was updated and improved in a recent project, CAP-STRAT. The main objective of these two projects was the development of an EU-wide economic modelling system able to analyse regional impacts of the Common Agricultural Policy (CAP). In the following, a short description of the CAPRI modelling system is given before the results of the MTR

study are presented (see Britz *et al.*, 2004) for a more detailed description).

The modelling system consists of a regionalised data base and a corresponding economic core model that is strictly in line with micro-economic theory (van Tongeren 2004). The core model consists of a supply module (for EU-15) of 200 sub-national regions at NUTS2 level and a market module of all EU Member States (EU-15) and 11 non-EU global regions (e.g. the U.S., Canada, Australia and New Zealand, Rest Cairns, India, China, NMSs). The CAPRI modelling system features a detailed regional description of CAP policy measures including payment schemes, set-aside obligations and quotas on the supply side, and price floors, market interventions, tariffs including tariff rate quotas and bilateral trade agreements as well as export subsidies on the market side. For non-EU regions policies are based on OECD's PSE/CSE data base.

The modelling system involves physical consistency balances for agricultural areas, young animals and feed requirements for animals as well as nutrient requirements for crops. The production activities are very detailed described and in accordance with the economic accounts for agriculture (over 60 products and 30 inputs). Each region can be seen as a "farm" that maximises its profit function by choosing the optimal composition of inputs and outputs, at given prices for the final product and given prices for key inputs (van Tongeren, 2004). The sub-national "farms" (at NUTS2 level) are then aggregated to member state levels using techniques from the maximum entropy and positive mathematical programming literature. Trade occurs between member states and market clearing at the EU-15 level yields prices for inputs and output (including feed and young animals). Through an iterative procedure supply is again optimised for each NUTS2 region, and new market prices are again calculated until the whole system is in equilibrium.

The results include set-aside areas, crop areas, animal numbers, costs, and farming incomes (GVA at market prices, plus direct payments) compatible with the economic accounts for agriculture at NUTS2 level; FEOGA budget outlays Pillar 1; consumer welfare indicators; and environmental indicators (N, P, K, NH<sub>3</sub>, global warming emissions (Green House Gases measured as CO<sub>2</sub> equivalents), water) as well as bilateral trade flows, prices, market quantities (at Member State level), and intervention sales and subsidised exports.

This following text reports the results of the CAPRI MTR study as published by the Commission (2003c). Section 6.4 below reports an analysis of these results when apportioned by TPG 2.1.3 to NUTS3 level.

The CAPRI simulations comprised runs to 2009 as follows:

- i. A reference run (Agenda 2000) based on trends and other assumptions compatible with those for other models such as CAPSIM (see Section 5.2.4 below), WATSIM, DG Agri Outlook, etc., and calibrated to 1997-99 prices and quantities.
- ii. A MTR proposal run, in which direct payments are assumed to be uniform at regional level and based on 1997-99 (not ~2001) data, subject to dynamic and 'capped' (300,000 Euro per farm) modulation.

Comparing these two runs, the MTR is estimated to lead to reduced crop supplies (e.g. cereals by 7.4%) and red meat (beef by 6.6%) but price rises (cereals 0.6%, beef 5.6%). There are falls in (a) farm output value (1.3%), (b) FEOGA budget outlays (8.9%), (c) farming income (0.14%), and (d) consumer welfare (6.4%), leading to a rise of 0.08% in overall net welfare ((c) + (d) - (b)). Environmental effects are positive; global warming potential down by 5% and N surpluses by 3.4%. The decrease in global warming potential is due to a drop in production of cereals coupled with an expansion of set-aside and fallow land, and a reduction in cattle production. Structural effects on farm size are uncertain. Decoupling of premiums increases allocation efficiency and may speed up farm size growth. On the other hand, certain parts of the proposal such as farm specific premium ceilings, and the exclusion of small farms from modulation and farm audits, may countervail this.

The Commission-published account contains little territorial commentary on the CAPRI results. In their study, Britz *et al.* (2004) showed major decreases (at least 13%) in set-aside and fallow land in Wales, parts of Ireland, southern Finland, and parts of Greece and Austria, with major increases (over 3%) in many parts of Spain, Portugal, southern France, and Greece. Major decreases (at least 10%) were estimated in total premium payments per hectare in parts of central France, north and south Italy, east England and southern Greece, and major increases (-2% up to 37%) in most other regions except in Germany (where the drop is "around -9%"). Global warming emissions were found to drop most as a result of MTR reforms in Spain, central and southern England, southern France and in parts of Austria and Greece.

The drop in cereal supply is said to be "rather pronounced in regions with very low yields and [a] high share of direct payments in income for the reference run", e.g. durum wheat area in Portugal down by 60%. Total premium payments are estimated to rise in regions with high levels of permanent grass land and cattle production (with

consequent rises in land rent levels, so that income distribution effects depend on land ownership). It is argued that “uniform premiums at Member State level would provoke a redistribution from more productive regions ... to less productive ones”. Also, “[r]egions specialising in beef production often receive higher premiums per hectare of grassland than per hectare of arable land from the COP scheme. In those regions, an identical premium shifts support towards arable crops.”

### **6.2.3 The CAPMAT MTR Study**

This study, by the Centre of World Food Studies in Amsterdam and the Centre for Economic Policy Analysis in The Hague (CWFS/CPB), used a CAP Modelling and Accounting Tool (CAPMAT) based on programming modelling of farmer supply behaviour in each EU Member State (i.e. at country level) embedded in a general equilibrium model, though with a highly stylised non-agriculture sector<sup>38</sup>. World prices, considered as exogenous, were projected into the future using a 1:1 Euro:dollar exchange rate. A number of other assumptions included flexibility constraints on farm adjustment rates, an assumed area (0.7 Mha by 2009) of energy crops, more non-agricultural use of agricultural land (0.282 Mha by 2009).

The results show minor changes in land use, largely since the dairy and sugar regimes are unchanged, and the MTR proposals included elements tending to avoid instabilities. However, the EU-15 wheat area falls by 8%, coarse grains by 4% (rye by 45%), rice by 26% and oilseeds by 8%. The (large) EU-15 grass area increases by 1%. The farm population is estimated to fall exogenously by 2.4% (from 6.7 to 5.9 million) between 2003 and 2009, but farm incomes per head rise by 3.3%. The overall effect on economic welfare (equivalent variation measure), assuming no development in non-agricultural value added, is a gain of just over €1 billion, with a fall in direct support for agriculture of €1.24 billion.

Commentary (by the modellers) on these results in the Commission (2003c) report includes the warning that the 2009 time horizon is “far too short to identify the long-term implications of the proposed reform,” but suggests that “in regions with mountain farming, rough grazing or less favoured areas, where the link between livestock intensity and grassland is hard to establish, the present [i.e. proposed] MTR regulations might in the long run offer scope for concentration of payment rights, which would be conducive to further intensification.” The CAP reform would preserve the ‘anchor’ of stable net farm revenue, but change its basis from administered prices and stock keeping to

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<sup>38</sup> A previous version of the model was based on the ECAM model developed at Bonn.

farm/farmer eligibility, limited tradability of payment rights and the postponement of dairy and sugar reform.

#### **6.2.4 The CAPSIM MTR Study**

The University of Bonn's EuroCARE centre was responsible for a second impact study, this time using the still-developing CAPSIM model which is a "straightforward partial equilibrium-modelling tool with behavioural functions for activity levels, input demand, consumer demand and processing." It appears to operate at Member State level, with extra-EU-15 trade prices (or volumes) set exogenously.

The alternative reference and MTR simulations differ as follows: falls in many crop areas and revenues (areas: soft wheat by 1%, durum wheat 24%, barley 2%, maize 1.3%) but rises in the areas of oilseeds (1.5%) and of arable fodder crops (5.7%). The most notable differences are for beef cattle (adult males and suckler cows), but small price rises on meat markets (still constrained by EU border protection). Agricultural GVA is therefore slightly higher (1.2%) under the MTR although dynamic modulation cuts product-linked subsidies by 8% and results in a small fall in NVA (1%). Consumers would lose a small amount of economic welfare due to higher meat prices; the Pillar 1 budget savings (6.5%) would be redirected to Pillar 2 rural development (unmodelled).

Little territorial interpretation of these results is offered, but the authors suggest that "environmental impacts are likely to be positive for different reason, e.g. reduced support for intensive production of some cattle, and for fodder maize, and cross-compliance obligations (unmodelled). The administrative burden may eventually fall, and equity within farming may be improved although the €300,000 cap (unmodelled) might affect efficiency.

#### **6.2.5 The INEA MTR Study**

This study (INEA, 2002b), carried out at the Institute for Agricultural Economics Research in Rome, used the well known comparative-static worldwide GTAP AGE model (Version 5), whose base year was shifted from 1997 to 2006 using exogenous projections. There were 16 'regions' – the present Member States (Belgium and Luxembourg were combined, presumably), a NMSs bloc, and the 'rest of the world', each with 15 products (mostly agricultural and food) and 5 endowments (land, natural resources, labour, capital, and one other). Scenarios involved full decoupling, modulation (simulated as a 15% reduction in all decoupled payments, ignoring the franchise and capping) and enlargement, modelled by abolishing all EU-NMS trade measures and making domestic NMS support "consistent with the EU policies". Direct payments were made consistent with the financial guideline for the new Member States (rather than using fixing unit payments).

The results suggest that full decoupling (with or without modulation and/or enlargement) "may promote a significant and generalised reduction in the volume of agricultural production" in the EU-15. Cereal production (and presumably area to a greater extent) is estimated to fall by up to 30% in France, Belgium, the United Kingdom, Denmark and Germany, but also in Spain, Italy and Greece. Decreases in cattle production would be especially strong in Ireland (down by 25%) but also in the United Kingdom and France. However, falls in other sectors are much smaller.

The effect of (a reformed) CAP adopted in the NMSs is estimated to increase production there significantly for cereals, oilseeds and sugar, and milk to a more limited extent.

Economic welfare effects of the full package (decoupling, modulation, enlargement) are put highest for the United Kingdom and France, followed by Spain and Italy if enlargement is excluded. With enlargement, Germany becomes the third largest gainer, due to its close NMS trade links. While not large compared to GDP, the gains are equivalent to about 30% of EU-15 public expenditure on agriculture, and derive almost entirely from decoupling and the consequent reduction in resource distortion, which, it is assumed, releases farm resources to other and more productive uses.

### **6.2.6 The Commission LTP Studies**

In addition to its studies of the July 2002 MTR proposals, the Commission has published the results of its analysis of the modified Long-Term Perspective (LTP) proposals presented in January 2003. Its report (European Commission, 2003a) summarises the main findings of two analyses: one "on the basis of a set of partial equilibrium, dynamic models covering the most important arable crops, animal and dairy products in the EU-15", which are "regularly used for medium-term projections"; and the other using the ESIM model (also equilibrium) which has been specifically developed and used to evaluate the impact of EU enlargement. The main findings are said to "generally converge".

The results (for years 2004/05 to 2009/10) are expressed in absolute terms and in terms of percentage deviations from continued Agenda 2000 policy measures, as a result of the legislative measures (the LTP proposals), and with assumptions as the trade policy framework, the macro-economic environment, and medium-term world market developments.

The impacts of CAP reform in the EU-15 in 2009/10 (compared with Agenda 2000 continuation) are assessed as follows:

- Arable: cereal area down by 2.6%, production down by 2.1%, esp. rye and durum wheat. Oilseed area down by 2.9%, More energy crops (0.8-0.9 Mha, mostly on ex-cereal land) and voluntary set-aside (+29%, 0.7 Mha) on "land with low profitability"
- Beef: production down by 2.7% but prices up by 7.1%
- Sheepmeat prices: up
- Pork and poultry: production and consumption up
- Milk: rise (with quota) of 2.0%; butter prices down by 23%, and production down: cheese and fresh dairy products production up (cheese production up 1.5%, prices down 5.5%); SMP production down 6.6%, prices down by 4.8%
- Farm incomes: 'very modest' impacts (-0.1%) but 8.5% higher than in 2001 in real terms, per work unit. Less favourable in dairy (-5%) and oilseeds (-11%) sectors, significant gains in overall meat sector (2 to 3%).

The impacts of EU enlargement (in 2004) and CAP Reform in the EU-25 by 2009/10 (compared with Agenda 2000 continuation) are assessed as follows:

- Arable: cereal area down by 4.1% (especially rye), production down by 3.2%; oilseed area up by 3.9%
- Meat: production down by 6.6% lower
- Dairy: production 1.6% higher (lower subsistence production offsets higher quotas); milk prices 10% lower (cf. EU-15 23% lower)
- Market revenue (GAO) 3.4% lower (crops 1.3%, animals 6%); GVA 2% lower; but (after direct payments) agricultural income 1.3% lower (real incomes in new Member States over 45% higher than in 2002 without enlargement)
- "Significant and sustainable improvement"

This report contains no territorial results or (except as above) discussion.

## **6.3 Territorial Analysis of CAP Reform Proposals**

### **6.3.1 CAP Reform and Cohesion Objectives**

The direction of current CAP reform (Agenda 2000 and the Commission's Long-Term Perspective proposals) can be characterised by:

- Lower market protection, especially for cereals but increasingly for milk, sugar and other products.
- Direct payments to farmers decoupled from production levels but linked (cross-compliance) to agri-environmental and other

performance, and modulated (e.g. by size of total payments) to release funds for other purposes.

- A stronger and wider “rural development policy”, including food standards and animal welfare but also farmer and farmland diversification and environmentally valuable farming methods.

Cohesion objectives include, in particular:

- The viability of rural communities and
- The reduction of urban-rural and rural-rural disparities of income, job opportunities and quality of life.

Comparison of these two lists suggests CAP reform may have two different effects:

- Maintaining the incomes (and hence existence) of certain numbers of farmers who will receive direct payments at a level likely to ensure satisfactory standards of living which are comparable with urban and other rural citizens.
- Requiring the adjustment – perhaps by exiting the farming sector – of a number of farmers who are unable to replace income losses from lower market returns and/or lower direct payments by farm diversification and environmental enhancement.

The impact of these trends on the viability of rural communities depends primarily on the proportion of farm workers amongst the rural population as a whole, and on the ability of those leaving farming (in whole or part) to find alternative employment and/or income without changing their community of residence. While houses abandoned by ex-farm households may not fall into disrepair, if used for occasional family or new-purchaser visits, or by incoming retirees and commuters, these new uses may not result in a satisfactory standard and variety of rural community life in terms of school attendance numbers, social activities, etc.

Even with retention of numbers of farms and farmers, the ‘new CAP’ is unlikely to form the foundation of viable rural communities if the farm occupants so retained are generally old, and/or have non-farm activities which take them away from their communities and surroundings for significant periods of time during the day, week or year. Payment for non-labour-intensive land-using activities such as woodland or nature reserves, for example, may allow and encourage such changes. In view of the generally rising average age level of EU farmers, this is of concern, although offset by the positive aspects of providing some of the increasing numbers of older EU citizens (some returning to farming after an active first career elsewhere) with an environmentally valuable lifestyle.



An alternative – and perhaps parallel – development in agricultural patterns and practices is the development of farming enterprises which are substantial in terms of land use and/or business scale, and able to survive more adverse and more variable cost-price ratios than under the 'old CAP'. Such businesses are likely to use modern technologies, to develop their human resources, and be fully integrated into national and international food supply chains, thus providing their managers and employees with lifestyles fully comparable with other professional occupations.

From a territorial point of view, the relative levels of these developments is likely to vary by distance from major urban centres and tourist attractions, and by the quality and variability of agronomic resources such as soils, water and processing facilities.

### **6.3.2 Balance of EU Objectives**

In terms of our hypotheses (see SIR) and the CAP itself, EU objectives may be considered at a number of levels, e.g. at a 'high' or 'strategic' level (global competitiveness, socio-economic cohesion and environmental sustainability), and, at a lower or more specific level, (e.g. 'fair' levels of farm incomes, strengthened and integrated rural development, and food safety).

The optimal balance of these objectives is ultimately a political decision, taking into account the demands of the various social groups concerned, and the trade-offs necessary between current and future uses and enjoyment of resources, taking into account projected changes in technology and consumer/citizen preferences.

Nevertheless, from a socio-economic point of view, the following remarks may be made:

- The increasing emphasis placed by EU consumers on environmental quality and food safety is likely to raise the relative importance of the objective of environmental sustainability; and this will increase if consumers in Central and Eastern Europe, and/or in other major food-importing countries in the world, follow the same trend.
- As the world's largest food trader, the EU has a basic interest in global competitiveness in the production of agricultural products. Nevertheless, its unique and varied pattern of rural resources is unlikely to enable all territories to compete effectively in major world markets in grains, basic milk products, sugar, etc. Instead, it must seek competitiveness through a combination of quality and distinctiveness, recognising that any such market advantages can be

eroded by the actions of trading partners (cf. wine), and that continued efforts must be made to persuade consumers to prefer EU produce over that of other countries. However, as a single market of over 400 million people, who possess marked regional, national and continental identities and are generally less mobile than e.g. in the United States, it should be possible for EU territories to establish market positions in food and drink products which can be defended against competition from elsewhere.

- As regards the relative priority to be given to food safety, this seems likely to remain of major significance in the EU. Moreover, food safety is more likely to be secured and maintained by large-scale 'modern' farm enterprises and processing/retailing chains than by small-scale enterprise; this indicates a difficult choice to be made between the expressed EU objective of supporting small and medium-scale enterprises (SMEs) and those of commercial competitiveness and dynamism.

#### **6.4 CAP/RDP Implementation and Cohesion Policy at Territorial Level**

The historical (and current) structure of the CAP/RDP and its instruments are largely non-territorial in nature. The major regional CAP designations – the LFAs – have arguably been drawn at too broad a level to be regarded as territorially targeted, and the amounts of extra funding attracted by LFA status are not large compared to the major expenditures and effects of the direct payments and other market-wide support measures.

Within Pillar 2 of the CAP, many other rural development measures are similarly non-territorial in character, with the exception of those Guidance measures restricted to Objective 1 regions "whose development is lagging behind" and to regions previously classed as Objective 1 or 5b but now subject to transitional measures. The Objective 1 regions include 22% of the EU's population, but a much greater proportion of its land area (farmed and total). The main criterion for Objective 1 status (GNP per head at or below 75% of the EU average) is entirely economic, and not agricultural or environmental in nature.

Thus nearly the whole of the CAP is operated separately from cohesion policy, with which it fits only 'accidentally'. At territorial (sub-national) level, this is even more true, because the Cohesion Fund applies only to four countries, and it and much other Structural Fund expenditure is focussed on national-level problem such as inter-regional

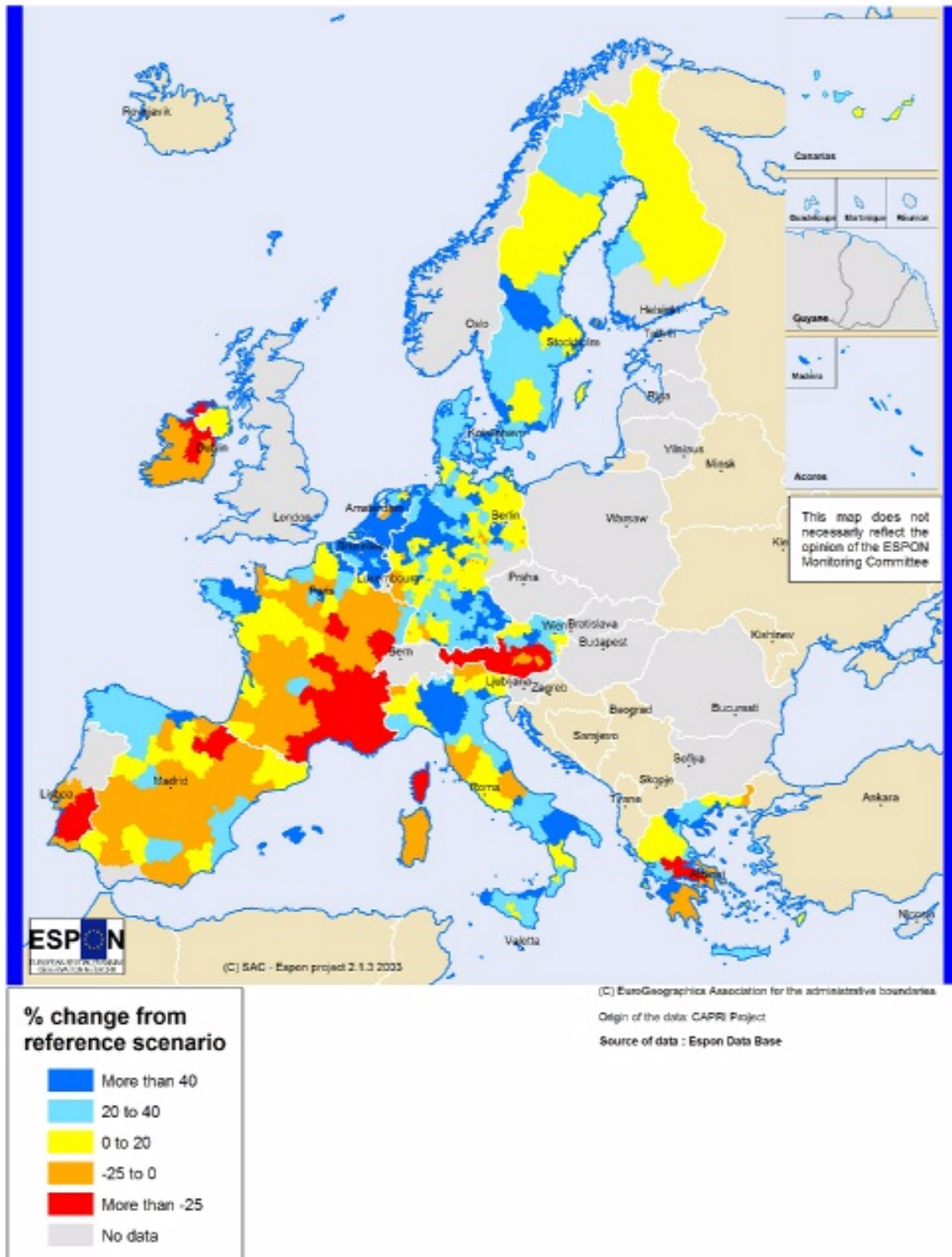
infrastructure, often related to urban areas, e.g. major transport links and wastewater treatment.

#### **6.4.1 Territorial Analysis of CAPRI Study Impact Results**

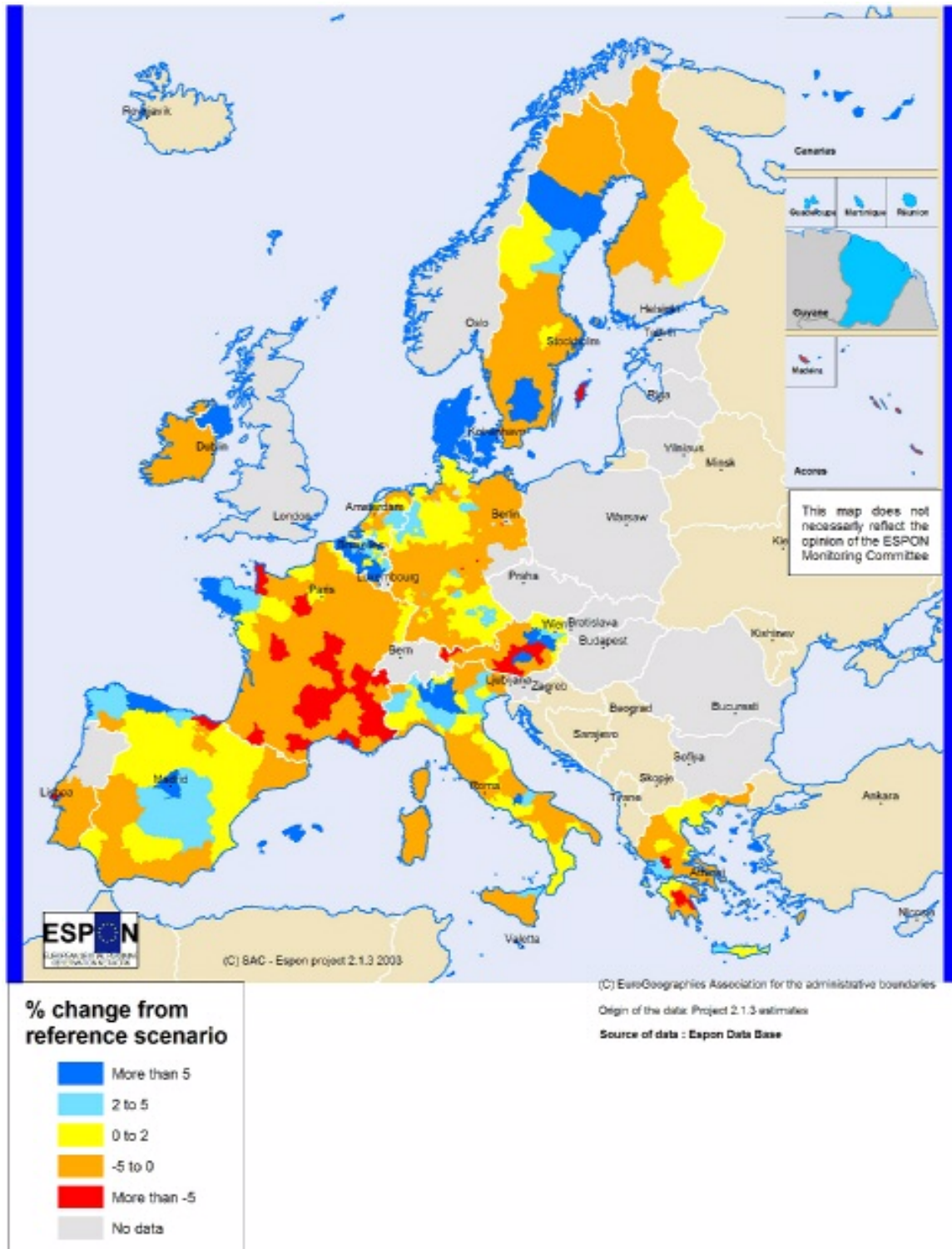
In order to study the relationship between CAPRI impact measures and the EU's social and economic cohesion objectives, the CAPRI results were first apportioned from NUTS2 to NUTS3 using the method described in Section 4.2.1. These results were then analysed using mapping and linear regression techniques. Three CAPRI measures of policy impact (both differences between 2009 estimates for MTR proposal implementation and those for the reference scenario, i.e. absence of MTR CAP reform) were considered in this analysis: CAP direct (premium) payments, farm income calculated as Gross Value Added (GVA) plus CAP premium payments, and global warming potential (expressed in terms of CO<sub>2</sub> equivalents).

The following trio of maps show these variables expressed as percentage changes from the reference level. Under MTR reform, CAP payments (Map. 6.1) change by more than about 25% in relatively few regions, such as the Low Countries and parts of northern Germany and northern Italy (increases) and southern France and Austria (reductions). Farm incomes (Map 6.2) are only marginally affected, with changes of more than 5% apparent only in a small number of NUTS3 regions in France (mainly in the south) and Austria (both show falling incomes) and in some or all of Northern Ireland, Belgium, northern Italy, Denmark and Sweden (all show rising incomes). Of course, these percentage changes reflect the relative size of the MTR effects and the level of farm income in the base period (1997-99). As regards CO<sub>2</sub>-equivalent emissions, Map 6.3 shows that most regions were expected to experience a very slight reduction in CO<sub>2</sub>-equivalent emissions (of between 0 and -1%) as a result of the MTR proposals. The only regions experiencing small increases (less than +1.5%) are mid-Sweden, south-eastern Italy and a small part of the Netherlands.

**Map 6.1: Percentage change in CAP payments resulting from MTR proposals compared to the reference scenario**

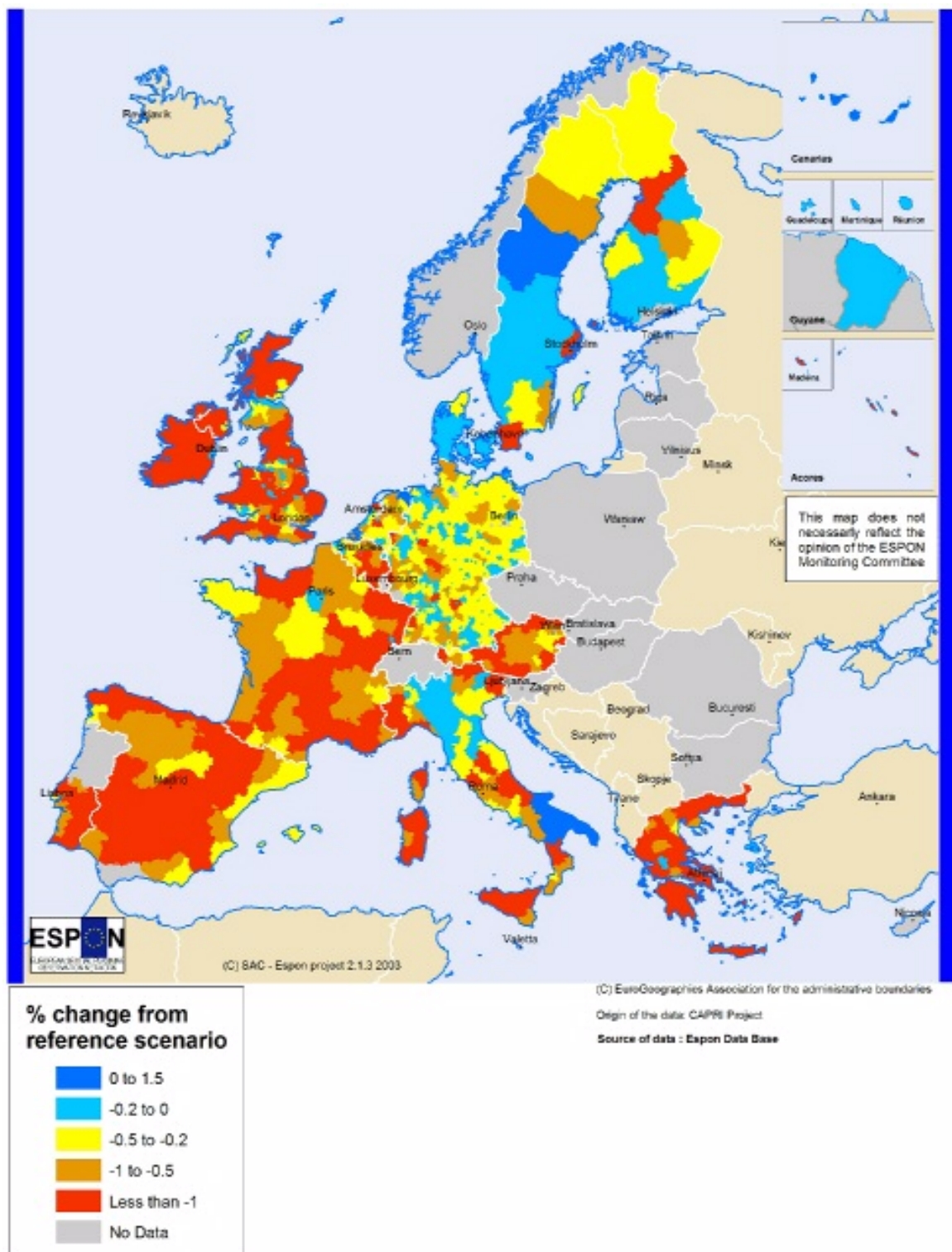


**Map 6.2: Percentage change in farm incomes resulting from MTR proposals compared to the reference scenario**





**Map 6.3: Percentage change in CO<sub>2</sub> equivalents resulting from MTR proposals compared to the reference scenario**



In terms of statistical analysis, the relationship between the percentage change in each of the CAPRI variables and cohesion indicators was explored. The 3 cohesion indicators were the same as those used in Chapter 4, i.e. GDP per inhabitant and the unemployment rate, both in 1999, and the population changes between 1995 and 1998. The results (see Table 6.1) suggest that the MTR CAP reform proposals would have increased CAP direct payments more in those NUTS3 regions with higher values of GDP per inhabitant, i.e. the generally more prosperous areas. However, there was no statistically significant relationship with NUTS3 unemployment rates. The results also indicate a negative relationship between the difference in CAP premiums and increases in population between 1995 and 1998. Thus, as a result of MTR implementation, CAP premiums would have increased more, compared to the benchmark scenario, in those areas with more slowly growing populations in the late 1990s.

Regressions using farm GVA plus CAP direct payments showed no statistically significant relationship with any of the cohesion indicators, suggesting that the overall impact of the MTR proposals on farm incomes would be territorially neutral.

**Table 6.1: Pearson correlation coefficients between the estimated impact of MTR proposals and socio-economic indicators for NUTS3 regions**

Impact variables	GDP per head	Unemployment rate	Population change 1989-99
Direct Premium payments	0.164(**)	-0.024	-0.069(*)
N	890	831	821
GVA plus CAP92 Premiums	-0.022	-0.057	-0.006
N	892	833	823
Global warming potential	-0.204(**)	-0.062	-0.048
N	1061	971	883

\* and \*\* indicate significance at the 0.05 and 0.01 level, respectively, using a 2-tailed test.

Finally, the environmental indicator, global warming potential (represented by percentage change in CO<sub>2</sub> equivalent emissions), was positively correlated with GDP per head, suggesting that the greatest percentage increases in emissions would tend to occur in the more wealthy areas of Europe.

Table 6.2 shows the results of equivalent analysis, but in this case considering the relationships between the impact of the MTR proposals and accessibility indicators rather than cohesion indicators.

**Table 6.2: Pearson correlation coefficients between CAPRI-estimated impacts of MTR proposals and accessibility indicators**

	Direct payments	GVA plus CAP92 premiums	Global warming potential	Accessibility indicators <sup>1</sup>		
				Micro	Meso	Macro
Direct payments	1	0.099**	0.101**	0.198**	0.194**	-0.079*
N	890	890	889	883	886	886
GVA plus CAP92 premiums	0.099**	1	-0.060**	0.120**	-0.052	0.022
N	890	892	889	885	888	888
Global warming potential	0.101**	-0.060**	1	0.242**	0.292**	0.292**
N	889	889	1061	1050	1053	1053

\* and \*\* indicate significance at the 0.10 and 0.05 level, respectively, using a 2-tailed test.

<sup>1</sup> The lower the value of the indicators, the greater the accessibility of the region.

At all three spatial scales, the largest positive impacts on direct payments tend towards the more accessible regions. Similarly, the greatest percentage increases in farm incomes (GVA plus CAP92 premiums) tend to be associated with more accessible regions at the micro level while no significant correlations were found at the meso and macro level. The results for global warming potential mirror these findings, with the largest percentage increases in CO<sub>2</sub> emissions tending towards the more accessible regions of the EU, in this case at the local, meso and macro levels. However, it should be borne in mind that the magnitude of estimated changes in all three variables is small.

Similar analysis was undertaken with the OECD regional typology of 6 main categories of NUTS3 regions, i.e. predominantly rural and leading, predominantly rural and lagging, intermediate and leading, intermediate and lagging, predominantly urban and leading, and predominantly urban and lagging. Five dummy variables represented these categories, using Type 6 (predominantly urban and lagging regions) as the reference area type.

The results (Table 6.3) indicate that, as a result of the MTR implementation, CAP payments would, compared to the predominantly urban and lagging areas, decrease in rural and leading areas, and probably in both types of intermediate regions. Levels of farm GVA plus CAP premiums would fall, as a result of MTR implementation, in all OECD types except predominantly urban and lagging areas, and by approximately the same amounts (not shown).



**Table 6.3: Regression analysis of CAPRI-estimated impacts of MTR proposals on OECD area categories**

	Predominantly Rural		Intermediate		Predominantly Urban	
	Leading	Lagging	Leading	Lagging	Leading	Lagging
Direct Premium Payments	-0.447**	-0.171	-0.376*	-0.367*	-0.288	Ref.
Farm GVA plus Direct Premium Payments	-0.033**	-0.026**	-0.037*	-0.032**	-0.027**	Ref.

\* and \*\* indicate significance at the 0.10 and 0.05 levels, respectively, using a 2-tailed test.

“Ref.” indicates the type of area with which the others are compared.

#### **6.4.2 Further Development and Use of the CAPRI Modelling System**

The CAPRI modelling system will be further developed and used for policy analyses within a Specific Targeted Research Project (STREP), under the Sixth EU Framework, titled CAPRI-DynaSpat (2004-2007). One major task and contribution of this new project will be support to CAP monitoring and design (University of Bonn, Institute for Agricultural Policy, 2004). For that purpose, the database will be updated yearly. In addition, on a yearly basis a reference run with a ten year horizon will be developed following the updates of the database. The reference run covers at the one hand developments of supply, demand and prices for countries and country blocks at global level. On the other hand, the reference run will reveal the most probable development of the agricultural production program for farm types at NUTS2 level under continuation of the current policy. Major results cover, besides production related data (cropping pattern, herd sizes, production, input use), agricultural income at regional level as well as a basket of environmental indicators. The project will include regular scenario writing and impact assessment.

Scenario writing will be based on an analysis of the ongoing policy debate. In addition, possible projects of Commission services (DG-AGRI, DG-ENV), single Member States or other bodies will be incorporated into policy packages to be analysed in scenarios. Accordingly, policy impact analysis of probable implementation of the MTR decision from 2003 (the Luxembourg agreement) will most certainly be conducted within the CAPRI-DynaSpat project as more and more Member States decide on the implementation of the Single Farm Payment. It is already scheduled that one day of the CAPRI Training Session in Tänikon, Switzerland, 6 – 9 September 2004, will be used to set up and run the MTR (the Luxembourg agreement) based on the latest available facts and suggestions for the actual implementation in

the Member States. Without doubt, policy impact analyses of the final decisions in all Member States on the implementation of the MTR (the Luxembourg agreement) will be conducted. It will then also be possible to apportion the results from NUTS2 level down to NUTS3 level in the same way as have been done in this ESPON Project (see chapter 3).

The current comparative static version of CAPRI is designed for medium run simulations (5-10 years). Another task within the CAPRI-DynaSpat project will be to develop and validate a dynamic version, since most changes in the CAP are based on a stepwise adjustment process from current to revised instruments and Commission services (and others) are interested if the proposed path of policy change will provoke intermediate imbalances, e.g. in the FEOGA budget or in agricultural markets. Furthermore this will also facilitate comparisons to the results from other modelling systems such as the FAPRI model or OECD's AgLink- the latter is used by DG-AGRI for base line development and impact assessment.

An eastern enlargement of the CAPRI model is also on the agenda, following a two-tier approach. For three larger new Member States, Hungary, Poland and Czech Republic, a full regionalisation is foreseen until the end of the project. Regionalisation for the other new Member States will depend on data availability and project resources. Finally, the CAPRI-DynaSpat project will improve the environmental indicators and create a link to a Geographical Information System for landscape assessment.

## **6.5 Impacts of CAP/RDP Reform on New Member States**

### **6.5.1 Introduction**

Analysis of the impact of CAP/RDP reform in the NMS is complicated by a number of factors (IAMO, 2004), including:

- The broad socio-economic transition process towards a mature democracy and a market-based economy, which has a major influence on living standards
- The effects of EU accession itself, including free east-west trade within the EU-25 as well as domestic effects
- The precise way in which CAP reform will apply to these countries, following long and strenuous negotiations over the adoption of the 'old' (Agenda 2000) CAP
- The considerable pre-accession aid being delivered to these countries by means such as the SAPARD fund (see Section 2.2.4), and the effect of the Europe Agreements and the growing commercial anticipation of successful enlargement in 2004.

In general, the following general tendencies in the land sector are expected to occur after EU accession by the NMSs:

- Limiting regulations and restrictions on the purchase of land will have to be abolished;
- In order to consolidate and enlarge the competitive and intensive core of their farm sectors, the NMSs will have to adopt land legislation much more favourable to tenant-farmers;
- Access to the Union's system of direct aid will increase farm incomes, and therefore the land prices and rents;
- The institutional and political convergence will activate and enlarge the markets for land and its leasing in the candidate countries, while gradually integrating them into those of the EU-15.

The other effect of integrating the land markets of the NMSs, where effective land values are currently about 5% to 20% of the Community average, will be a considerable increase in land prices, in particular for the major crops. This will further decrease the comparative competitiveness in the NMSs, a further reason to moderate the forecast for cereal and oilseed crop surpluses. The consecutive rise of the cost of fodder also strengthens the forecast of under-competitiveness in the livestock sector (Pouliquen, 2001, p. 67). From the spatial viewpoint, the differences between more favourable and less-favourable areas might be expressed particularly strongly.

Table 6.1 shows budgetary estimates of the costs of CAP adoption by the NMSs under the agreed enlargement conditions, i.e. before the June 2003 CAP reform agreement, which did not directly involve the NMS ministers. The commitments for rural development are substantial.

**Table 6.1: Estimated CAP Expenditures, Indicative Allocations and RDP Commitments to Candidate Countries, 2004-2006 (€m, 1999 prices)**

	Czech Rep	Estonia	Hungary	Latvia	Lithuania	Poland	Slovakia	Slovenia	Cyprus	Malta	Total
<b>Total Direct Payments</b>											
2005	169	17	265	25	68	557	73	27	9	0.1	1,211
2006	204	22	316	31	84	675	88	33	11	0.3	1,464
<b>Market Support (Budget Heading 1a)</b>											
2004	45.0	13.6	63.6	8.9	23.2	135.2	16.9	14.9	4.9	0.7	327
2005	109.0	33.4	151.9	21.6	56.1	349.8	48.1	38.3	11.8	1.71	822
2006	111.0	34.4	152.0	23.6	59.2	376.5	49.2	38.8	11.5	1.7	858
<b>Rural Development Commitments</b>											
2004	147.9	41.0	164.2	89.4	133.4	781.2	108.2	76.7	20.3	7.3	1,570
2005	161.6	44.8	179.4	97.7	145.7	853.6	118.3	83.9	22.2	8.0	1,715
2006	172.0	47.7	190.8	103.9	155.1	908.2	125.8	89.2	23.9	8.5	1,825

### 6.5.2 The CAP in the NMSs

The current policies of CAP seem hardly suitable for the structural problems of the NMSs. The discussion in the negotiation period has concentrated on the application of CAP in the accession countries and transition periods useful for the sector and spatial integration. Rural development policy attains particular relevance under these circumstances, since it is assumed that a great portion of regions in the NMSs will be affected by further spatial divergence tendencies.

Community policies on agricultural enlargement, as defined by Agenda 2000 focus almost entirely on the combined capacity of overall growth in the NMSs and the structural aid to relax these constraints, by absorbing agricultural over-employment in urban and rural (non-agricultural) employment, and by financing increased national budgets for agricultural modernisation and restructuring (Pouliquen, 2001, p. 83).

Transitional policies for the accession-countries are proposed to achieve a competitive restructuring process of the sector, and to focus on measures in favour of rural development and government aid for the transformation of the semi-subsistence-farming sector in order to keep the migration towards urban employment on a moderate level. The competitive restructuring covers direct aid to investment in intensive productions, notably livestock and horticulture, and in the related upstream and downstream industries. Basic infrastructures (networks of water conveyance, electricity, roads, rail and waterways, telecommunications, irrigation, and other para-agricultural investments) are of particular importance and furthermore a complex 'package' of other convergent policies, including relevant progress of the institutional framework are required (Pouliquen, 2001, p. 83).

### **6.5.3 Direct Payments**

In the run-up to accession, the application of direct payments has been controversially discussed. The pro and contra arguments give an assessment of the prospected impacts: the core argument in favour of the application of direct payments was that direct payments are part of the CAP acquis, and the permanent exclusion of the new Member States from direct payments would not reflect the EC Treaty's concept of a single market for agricultural products (EC, 2002a: 5). The Commission, however, concedes that the application of direct payments without adaptation could have some counterproductive side-effects (EC, 2002a:5), including negative impacts on restructuring, and creating considerable income disparities and social distortions in the rural societies of the new Member States, which might create imbalances both within rural areas (due to wide differences in land ownership) and between rural and urban areas, without adequately addressing the requirements of semi-subsistence farms. Many of the arguments against the application of direct payments could be also turned against support systems in the EU-15. A principal problem is that direct payments do not help the semi-subsistence farming sector, because this sector has not a significant base area.

The conclusion was to start direct payments at a low level combined with intensified support for restructuring, in particular through rural development actions. As an output of the Copenhagen summit in December 2002, direct aids for the new member states will be phased in over 10 years (Table 6.2). They will thus receive 25% of the full EU rate in 2004, gradually phased in and by the year 2013 they will reach 100%. Furthermore there is the possibility of co-financed top-up direct payments.

The new Member States will have the option to grant direct payments during a limited period in the form of a de-coupled area payment

applied to the whole utilised agricultural area. On the basis of its total envelope of direct aids and its utilised agricultural area, an average area payment would be calculated for each country (EC, 2002d: 4). The selection of the implementation model of the direct payments (full or simplified schemes, modulation) will have a decisive impact on the effects, including a spatial variation of the prospects for the development of agricultural sector. In addition, a package of rural development measures will be available to accession countries from accession onwards.

**Table 6.2: Phasing-in of direct payments, Budgetary Outlays**

	<i>Percentage</i>	<i>Top- up direct payments</i>	<i>Amount of Money (Mio. €, 1999 prices)</i>
2004	25%	30%	1211
2005	30%	60%	1464
2006	35%	65%	1743
2007	40%	30%	
2008	50%	30%	
2009	60%	30%	
2010	70%	30%	
2011	80%	20%	
2012	90%	10%	
2013	100%		

#### **6.5.4 Commodity and Spatial Effects**

The specific conditions of entry were agreed in the Copenhagen decisions (phasing in of direct payments, top-up possibility, agreed production quotas; EC, 2003a: 11). The accession will remove the reciprocal protection between the NMSs and the EU-15. Vice versa the NMSs will benefit from (phasing in) direct payments and rural development measures.

There are several studies which forecast scenarios after entry of the NMSs (EC, 2002a; EC, 2003a). It seems to be common sense that a decline in livestock production and a modest growth in cereal and oilseed production would be the effect of the accession (Pouliquen, 2001). In all impact studies the specific spatial implications of the entry are a non-issue.

The main effects of the application of EU price policy in the candidate countries will be to encourage cereal production (due to rising price level) and discourage feed consumption. The effects on beef and dairy production are slightly positive, but not enough to cause a significant increase compared to current production levels. Pork production is likely to decline, at the same time as its consumption increases. The major impact of direct payments on production would be a further shift

towards coarse grains and a faster development of specialised beef production, subject to the suckler cow premium ceilings (EC, 2002a: 3).

It must be mentioned that the assumption of 'rising price level' (which is 'translated' into rising land-use and ensuing spatial effects) is highly volatile. It depends on the degree of the appreciation of the real exchange rate, and is also affected by the continuing alignment between Community and world prices (cp. Midterm-review). A continuing convergence of farm prices towards levels of the Union is observed, which will have a direct impact on the competitiveness of NMS farm prices (Pouliquen, 2001, p. 15). Meanwhile, there are examples where farm prices in NMSs have attained the level of EU-15 countries, and it seems that price levels can not increase much further.

Baldock and Tar (2002) estimate that the area of cereals seems likely to expand, partly absorbing land currently sown and altering it to crops where contraction may occur, such as potatoes. Some of the abandoned arable land might come back into production. Intensification seems unlikely to reach EU-levels, because of the lower land and labour prices, moreover the limited availability of credit and the low inputs of pesticides and inorganic fertilisers. More marginal cereal land may continue to justify little investment or new infrastructure and gradually be abandoned or be converted to other uses, e.g. forestry.

A more differentiated assessment of the CAP impacts is expected for livestock production. Semi-subsistence farming is important in the dairy sector, and with large numbers of small producers, many observers expect them to become less competitive and to withdraw from farming in sizeable numbers. This could be accelerated by the health and hygiene standards within the EU and the introduction of the milk quota regime. Therefore dual effects are probable: abandonment from small plots of semi-subsistence farmers and intensification of the large producers.

These views are shared by more recent assessment studies stating that husbandry will decline. An impact assessment of the CAP reform proposals (which incorporates the effect of decoupling direct aids) forecasts for EU-25 that the utilised agricultural area will rise stronger than the resulting yields: The new Member States add about 38,0 Mio. hectare of UAA to the 130 Mio. hectare of the old Member States, representing an increase of 30%. The EU-25 would produce in 2006 about 30% more cereals with 42% more cereal area and 25% more oilseeds with 37% more oilseed area (EC, 2003a: 12).

### **6.5.5 Rural Development Policies in the NMSs**

There is a broad consensus that rural development policies should be territorially defined and based on an integrated approach, embracing the economic, social and environmental aspects of rural development (OECD, 1997: 22). The large portion of the accession countries which is dominated by rural areas underpins the relevance of rural development programmes.

Rural regions in the enlargement area are affected especially by transformation problems. They show sharp economic spatial disparities and have few urban centres. To a certain extent, the mix of sharp declines in production and employment levels, poor infrastructure and poor transport accessibility could lead to a massive wave of out-migration from rural regions, and as a consequence, to the collapse of their socio-economic viability (EC, 1999: 50). Yet, in many NMSs the formulation of rural development policies is at a rather early stage and they are still mainly targeted at the agricultural sector and the basic rural infrastructure (OECD, 1997: 22).

A tradition for spatial development and regional policies similar to those of many EU-states and as defined in the EU Structural Funds hardly exists. This can be seen through the lack of spatial development and regional policy instruments and institutions as well as by the fact that in general independent regional levels in the political and administrative territorial system do not exist (EC, 1999: 48-49). The OECD proposes an effective, well-designed and suitably targeted institutional adjustment, which is crucial for rural development policies.

“Given their territorial and multi-sectoral character, rural development policies and programmes involve a wide array of actors including sectoral ministries, government agencies, intermediate and local administrations, local private business, trade associations and voluntary organisations. Therefore, an institution needs to be designed with the responsibility and authority to lead and co-ordinate rural development policies” (OECD, 1997: 126).

As outlined above, most candidate countries cannot be expected to develop the administratively more demanding rural development measures on the basis of their current limited administrative capacity and experience alone (Baldock and Tar, 2002, p. 12). The two programmes agreed at the European Council meeting in Berlin as part of the Agenda 2000 proposals, the Instrument for Structural Policies for Pre-Accession (ISPA) and the Special Action for Pre-Accession Measures for Agriculture and Rural Development (SAPARD), aimed particularly at this lack of institution building and supported the (technical) implementation of territorial development policies in the applicant countries.



As an outcome of the Copenhagen summit in December 2002 the EU decided a package of rural development measures eligible including:

- Early retirement of farmers
- Support for less favoured areas or areas with environmental restrictions
- Agri-environmental programmes
- Afforestation of agricultural land
- Specific measures for semi-subsistence farms
- Setting up of producer groups
- Technical assistance
- Special aid to meet EU standards

Additional rural development measures (investment in agricultural holdings, aid for young farmers, training, other forestry measures, improvement of processing and marketing, adaptation and development of rural areas) will be financed from the Structural Funds (EAGGF Guidance sector; EC, 2002d: 2).

#### **6.5.6 Distinctions between NMSs**

The pre-conditions for the NMSs accession with respect to implementation of rural development policies are highly diverse. For example, Slovenia and Slovakia recently established central co-ordinating bodies responsible for rural development policies. However, financial support for rural areas is still strongly linked to agricultural production, while support to other activities in rural areas is still negligible. In Latvia, Lithuania, Albania and Bulgaria, the restructuring of agriculture still predominates, and minor attention is being paid to the specific problems of rural areas at present. However, a growing number of projects aimed at tackling specific rural problems are being undertaken, usually with the backing of international donors. In Romania, no institutions exist for the specific purpose of promoting rural development, and rural policy is still equated with agricultural policy and primarily a centralised approach (OECD, 1997: 22).

This leads to the two main types of institutional development: on the one hand, there are countries with central institutions co-ordinating rural development policies created, where the sector approach is integrated into regional strategies. In the Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia, rural policies are distinct from agricultural policies; decentralisation of the decision-making process and the involvement of local actors in solving community problems seems to be most advanced, and central co-ordination bodies responsible for rural development policies are already established. Whereas rural development policies are conceived in close relation to

regional policies, the financial support for rural areas still remains heavily concentrated on agricultural production, and support to non-agricultural activities in rural areas is marginal (OECD, 1997: 130). Expectations of a more integrated approach and multi-sectoral programmes were disappointed by the practice of the pre-accession programmes (e.g. SAPARD) which tightly focused on competitiveness and sector aspects.

Latvia, Lithuania, Albania, Bulgaria and Romania are the second group. The discussion of the specific problems affecting rural areas is at an early stage and the restructuring of agriculture still predominates. A growing number of individual projects are aimed at solving specific rural problems, but there is no separate institution which co-ordinates rural development issues.

There is thus a great challenge for applying strategies for integrated rural development policy in the NMSs. The following aspects are particularly relevant and require greater attention (OECD, 1997: 131-132):

- The low level of economic development leads to a domination of macroeconomic strategies, and preferential treatment of restructuring and privatisation issues. Programmes to decrease spatial divergence and support non-urban areas have still to be started. However, the tight central budgets leave only little resources for financing local governments' development initiatives.
- Public funds are channelled to rural areas almost exclusively through agricultural policy measures, partly because of the still important role played by agriculture and strong agriculture lobbies.
- Rural development is the result of a long-term process of institutional evolution and socio-economic development.
- The disruption of local development, and the experience of collectivisation and artificial creation of rural settlements (agro-centres) and the recent transformation period have increased insecurity and threats for local population. In many rural areas this has contributed to the weakening of the identification of the rural population with the area in which they live. There is a rising need to re-shape local identities and to nurture potential of rural areas in NMSs.
- Insufficient means at local level to solve local problems, the dominance of top-down approaches, and lack of secondary and vocational education available for the rural population are further important handicaps for rural development activities.

### **6.5.7 Mountain Areas in the NMSs**

As a specific spatial category, mountain areas reveal features of spatial divergence and environmental impacts more clearly than other areas. The case of the mountain areas is therefore presented here to focus on the particular need to less-favoured areas in the accession countries. Many parts of the NMSs are characterised to a large degree by such land use types, for instance the Carpathian mountains which extend over parts of the Czech Republic, Slovakia, Hungary, Poland, Ukraine and Romania. Due to natural difficulties and problems of the restructuring of agriculture, the income potential from agricultural production in these areas is substantially lower than in lowland areas. These areas are furthermore threatened by trends of growing inter-regional disparities. Appropriate strategies for the agricultural sector and rural development policies will play a decisive role, particularly in the more marginalized areas of the NMSs (Dax, 2001, p. 2).

The features of mountainous regions in NMSs are very diverse (Dax 2001, p. 6). Whereas Slovenia and Poland have mostly well developed infrastructure in the mountain regions, other countries have limited social problems in mountains and rather good infrastructure (e.g., the Czech Republic, Slovakia and partly Bulgaria). Still others, like Romania and Albania, have a lot of small private farms, suffer from overpopulation and a lack of job possibilities, which implies high unemployment rates and badly developed infrastructures.

The degree of implementation of a specific less-favoured-area framework and policies is highly different. In preparation of the accession some NMSs (Czech Republic, Poland, Slovakia and Slovenia) have already provided support to farming in marginal areas and in particular mountain areas, especially to grassland based farming methods. Among the three Baltic countries only Lithuania has established a similar programme to date. On the contrary, Bulgaria, Estonia, Latvia and also Romania have not yet developed less favoured area type schemes (Dax, 2001, p. 6). In all countries there is a lack of integrated approach in the mountain areas. Common aspects for all mountain regions are:

- Mountain areas are characterised by widespread poverty, with the mountain population with weak economic integration and participation in the economic and social life of the country.
- Mountain people have restricted access to public services such as hospitals, primary schools, or cultural activities.
- Mountain areas are characterised by their lack of infrastructure, such as roads, telecommunications or electricity, systems that once

functioned, such as irrigation, sewage and heating networks have fallen to ruin.

- Open and hidden unemployment reaches dramatic levels, even if the statistics are lacking.
- Mountain regions and their populations are not taken into consideration in the political, economic and social life of the State – they have no effective representation.
- Mountain areas are affected by a wave of significant out-migration – however some areas have had substantial population growth due to people coming from urban centres, family and social structures have remained more intact in the mountains, semi-subsistence holdings may offer a modest living standard.

Mountain areas and other less-favoured areas cover a large space in the accession countries. The spatial importance results not only from the actual utilised agricultural area but also from the economic point of view of spatial cohesion which might offer opportunities for a sustainable future.

## **6.6 Conclusions**

Given the timing (mid-2003 to mid-2004) and nature (no primary investigation) of this study, along with the difficulties in the definitions and concepts of territoriality (see Chapter 3), analysis of the territorial implications of current CAP/RDP reforms is problematic. Nevertheless, an effort in this direction has been made in this chapter by means of a survey of published studies of the Commission's 20032 reform proposals, and by limited quantitative analysis at NUTS3 level of the results of the CAPRI study of these proposals. Other studies have been analysed the impact of the CAP/RDP as a whole on New Member States (NMSs).

The CAP reform proposals are expected to generate a sustainable improvement in the medium-term perspectives of the agricultural sector of the EU-25. In the EU-15, these reforms would maintain most farm incomes at levels similar to those expected under continuation of the Agenda 2000 CAP, but allow farmers greater flexibility in production geared to market demands. Some of these demands focus on environmental and food-safety aspects of farm products, so that these demands may be met more easily and efficiently. Agricultural restructuring should also be easier, allowing the EU to be more competitive in an international context. The environmental impact of the Commission's CAP reform proposals seem, however, to be minimal, at least as measured by expected CO<sub>2</sub> emissions.

In the New Member States, the reformed CAP would secure income gains to be generated by enlargement. Compared with adoption of the Agenda 2000 version of the CAP, these gains could reach up to 45% when taking account of the phasing-in of direct payments and rural development measures (EC, 2003a: 4). Although a territorial differentiation of the effects of the reform are rather difficult to calculate, it is concluded that the reform proposals would have diverging impacts across regions and the various sectors, leading to declines in the milk and (food) oilseed sectors, broadly stable development in the cereal sector, and significant gains for the meat sector. There might, however, be additional spatial aspects for the internal development of agricultural production, depending on structural and region-specific factors.

## **7 Agricultural and Rural Development Policy in the Context of EU Spatial Policy**

### **7.1 Introduction**

The European Spatial Development Perspective (ESDP) and subsequent reports on Economic and Social Cohesion published by the European Commission have sought to promote a more integrated approach to policies for rural and urban areas. As noted in Chapter 2, European spatial policy is guided by three fundamental goals of the European Union:

- economic and social cohesion
- conservation of natural resources and cultural heritage
- more balanced competitiveness of the European territory.

The EU spatial development policies seek to promote sustainable development of the EU in accordance with the following policy guidelines:

- Development of a balanced and polycentric urban system and a new urban-rural relationship,
- Securing parity of access to infrastructure and knowledge, and
- Sustainable development, prudent management and protection of nature and cultural heritage (EC, 1999: 11)

The key questions to be considered in assessing the relationship between agriculture and rural development policy on the one hand, and EU spatial policy on the other, include the following:

- To what extent are the objectives and instruments of the CAP and RDP compatible with the concepts of balanced polycentric urban development and new urban rural partnerships?
- To what extent are the outcomes of CAP and RDP measures in conformity with the EU cohesion objectives?
- To what extent do the CAP and RDP instruments support sustainable development, prudent management and protection of nature and cultural heritage? and
- To what extent are EU measures to promote parity of access to infrastructure and knowledge compatible with the CAP and RDP?

These questions have been addressed in this report largely through the evidence presented in Chapters 4, 5 and 6. In the following sections, the nature of the concepts guiding EU spatial policy is further explored and the empirical findings are then related to each of these more explicitly.

In Section 7.2, the ESDP concepts of balanced competitiveness, polycentric development and new urban/rural relationships are discussed in relation to EU rural areas and the CAP/RDP. In Section 7.3,

the same is done as regards the concept of cohesion, while Sections 7.4 and 7.5 deal respectively with environmental sustainability and peripherality.

## **7.2 Balanced Competitiveness, Polycentric Urban Development and New Rural-Urban Relationships**

### **7.2.1 Conceptual Framework**

According to the ESDP the goal of balanced competitiveness is to be promoted through the adoption of strategies for polycentric urban development and new types of rural-urban relations. The concept of balanced competitiveness is potentially flawed due to inherent contradictions between the requirements for global competitiveness and the desire for an EU that is more socially and spatially cohesive. It is important to recognize the inherently political nature of the balanced competitiveness concept and that it is open to varying interpretations at different geographical scales and in different parts of the EU.

The polycentricity concept marks a paradigm shift in thinking about Europe's spatial and economic structure. It replaces the core-periphery model which tended to focus on a dichotomy in which a prosperous, economically dynamic core zone was contrasted with an underdeveloped, geographically remote periphery. At EU (and European) level, the core has been variously defined as the 'European Megalopolis', the 'Blue Banana', the 'Golden Triangle' and the 'Pentagon' (Davoudi, 2003). The core-periphery pattern has been the key influential perspective in European regional policy discourse for more than two decades, with considerable influence over mainstream policy targeting. For example, the Structural Funds Objective 1 and the Cohesion Fund as well as specific measures addressing peripheral disadvantage, such as the TENs initiative, various telematics schemes, and the Northern Periphery Programme (Article 10), have taken their prime objective from this territorial concept (Copus, 2001). However, the ESDP suggests a shift towards promoting its replacement by a more balanced polycentric system which will "help to avoid further excessive economic and demographic concentration in the core area of the EU" (EC, 1999, para 67). It also affirms that such a policy will more fully utilize the potential of all regions, and so enhance the overall competitiveness of the EU (and cohesion) within a global context. The ESDP vision is described as follows:

"The creation of several dynamic zones of global economic integration, well distributed throughout the EU territory and comprising a network of internationally accessible metropolitan regions and their linked hinterland (towns, cities and rural areas of

varying sizes), will play a key role in improving spatial balance in Europe" (EC, 1999, para 20).

With respect to a comparative analysis against earlier concepts for spatial development, Schindegger and Tatzberger (2002) stressed the following main features of the concept:

- Polycentricity is a dynamic concept considering cities not only as supplying centres (Central Places concept / "Zentrale-Orte-Konzept" in German discussion) but rather as *driving forces for the regions*,
- Polycentricity is not only a model of well-balanced settlement structure but of *functional networks*. Functional networks refer to networks of existing and developing institutions for example in the area of education, health, culture, leisure time and services which are able to coordinate and co-operate, and concentrate their efforts to produce synergetic effects. They thus achieve viable market structures and are able to maintain economic institutions and services which could not be achieved on their own,
- Polycentricity implies the activation of *endogenous regional potentials* rather than top-down measures of adjustment such as financial assistance and appropriate infrastructure. Such aid was often provided through re-direction of resources from the prosperous areas to the peripheral ones. In polycentric development, the emphasis is shifted towards encouraging regional specialisation that can help firms to compete in global markets (Davoudi, 2003:19),
- The polycentricity model should be applied at *several levels or scales*, and implies a hierarchical interrelation of functional structures between the different levels.

Several definitions may be offered for the concept of polycentrism. The classic definition of morphological polycentricity is that a region consists of more than two cities that are historically and politically independent (where hierarchical relations are either absent or weak) and that are in proximity to each other and have a functional relation and complementary role to each other. However, there are other definitions especially when polycentricity is focused on functional economic or political networks (Antikainen *et al.*, 2003). In the work of ESPON Project 1.1.1, it is emphasised that spatial proximity alone is not a sufficient condition for polycentric urban development. Therefore, beside the morphological aspect, there is also the relational aspect of polycentricity, based on networks of flows and co-operations between urban areas at different scales. Considering the opportunities and potentials of the countryside as an integral part of regional development, the structure of intra-regional flows and relations is of



increasing relevance. Within the working definition of Project 1.1.1, polycentricity results from institutional (political) processes, based on voluntary cooperation, and structural (economic, functional) processes, arising from “spontaneous” spatial development (Nordregio, 2003b, p.3).

Polycentric development should not remain restricted to Europe’s larger metropolitan areas because this would not be “in line with the tradition of maintaining the urban and rural diversity of Europe” (EC, 1999, para 71). The guiding principle is the concept of urban hierarchies that cut across the whole of the EU territory. Thus, polycentric development can be applied at different territorial scales:

- at the European scale: several metropolitan regions as global integration zones instead of only one prosperous, economically dynamic core zone;
- at the transnational/ national scale: enforcement of a polycentric system of metropolitan regions, city clusters and city networks as well as systems of cities including the *corresponding rural areas* and towns;
- and at the regional/local scale: enforcement of networking and co-operation between small and medium sized towns as *engines for economic development in rural regions*.

The regional/local scale seems to be the most appropriate one at which to explore the relationship between rural areas and the concept of polycentricity. In this connection, the ESDP states that “the small and medium-sized towns and their inter-dependencies form important hubs and links, especially for rural regions. In “problem” rural regions, only these towns are capable of offering infrastructure and services for economic activities in the region and easing access to the bigger labour markets. Towns in the countryside therefore require particular attention in the preparation of integrated rural development strategies” (EC, 1999, para 93). ESPON Project 1.1.1 underpins the central role of such towns and also emphasises the need to acknowledge the wide internal diversity in the ESPON area and implies that there must be room left for decision-making attuned to the actual local situation (Nordregio, 2003b, p.9). This would supplement the approach taken in the analysis of Functional Urban Areas (FUAs) focusing on inter-municipal cooperation (Nordregio, 2003b, p.12). A broader place-based strategic remit requires the integration of the countryside into regional strategic frameworks; otherwise there is a risk of the countryside remaining as a residual space.

While a polycentric approach to urban development at different spatial scales may offer the prospect of a more efficient and more effective way to harnessing the potentials of regions, including the potential of

rural areas though new rural-urban relations, there are many situations where the concept may not be applicable (Davoudi, 2003). The polycentric approach may not be a feasible option in low density rural areas and/or where the transport infrastructure is weak.

Additionally, the building up of institutional networks which are an essential component of the polycentric model may be a particularly difficult challenge for economically weak regions, especially in relatively more remote rural areas, which are often lagging behind precisely because of their lack of associational structures.

Spatial and functional interdependencies between urban and rural areas are not a recent phenomenon although the complexity of their linkages and relationships has often been underestimated. The physical and functional boundaries of urban and rural areas are becoming ever more blurred, while simultaneously the interdependencies are becoming more complex and dynamic, containing structural and functional urban-rural flows of people, capital, goods, information, technology and lifestyles. Waste and pollution also shape the fortunes of the cities as well as the countryside (Centre for Urban and Regional Studies, 2002, 2003).

Whilst rural communities may be facing distinct challenges, it is now increasingly acknowledged that such challenges cannot be addressed in isolation from their wider context when it comes to policy formulation and programming. The functional interrelationships of urban areas with their surrounding countryside and the need to move away from the compartmentalization of policies are particularly highlighted in the ESDP by reinforcing the notion that the linkages between urban and rural areas should be based on an integrated treatment of the city *and* countryside as functional and spatial entities with diverse relationships and interdependencies. The following types of urban-rural relationships were distinguished in the Study Programme on European Spatial Planning (SPESP, BBR, 2001):

- home-work relationships;
- central place relationships;
- relationships between metropolitan and urban centres in rural and intermediate areas;
- relationships between rural and urban enterprises;
- rural areas as consumption areas for urban dweller;
- rural areas as open spaces for urban areas;
- rural areas as carriers of urban infrastructure (including waste treatment);
- rural areas as suppliers of natural resources for urban areas.

### **7.2.2 CAP and Agenda 2000 Reform**

The Agenda 2000 reform provided a new framework for rural development policy, the Rural Development Regulation (Reg. 1257/99), including principles of multifunctionality of agriculture; multisectoral and integrated approach to the rural economy; flexible aids for rural development, based on subsidiarity and promoting decentralisation; and transparency in the drawing up and managing processes for rural development plans. Thus, the preconditions for a more endogenous development seem to be strengthened through these principles. The Regulation offers some new scope for governments to tailor measures more effectively to meet the varied local needs of rural areas, at least from the conceptual level for programming.

However the menu and mode of delivery of Pillar 1 measures, which consume the vast majority of the total EU agricultural budget relative to Pillar 2, provide little incentive for promotion of an integrated multi-sectoral endogenous approach to the development of rural areas. The mono sectoral approach is indicative of a traditional perspective on rural urban relations where farmers were supported to provide food for the expanding urban populations. From this perspective it may be argued that the Pillar 1 component of the CAP is not consistent with the goal of balanced regional and rural development.

Article 33 measures in the RDR provide countries with instruments to increase the scope of action of farmers and people in rural areas. However, on average only about 10% of funds of the RDP are foreseen for these measures in the EU. In addition, most of these measures are only eligible for the farm sectors (Dax, 2002b). Budget constraints are also expected for the overall structure of Pillar 2 measures. In most countries, the stakeholders believe and first assessments reveal (Dwyer *et al.*, 2003) that the budget is much too small to adequately deliver the programme objectives in the period 2000-2006 and that a substantial increase will be required for the next programme period, starting in 2007. This perspective was shared by the European Commission assessment in the Mid-Term Review (EC, 2002b). However, subsequent changes to the reform proposals resulted in very modest modulation effects from Pillar 1 to Pillar 2, and the results will probably be less relevant than would appear from the prominent place in the discourse of (past and) current CAP reform (Baldock, 2003: 100).

### **7.2.3 Networking and Co-operation**

Encouragement of interaction and co-operation between neighbouring cities and towns and their surrounding rural areas is essential for developing polycentrism in a region. It is therefore important to examine the extent to which the CAP and RDP promote territorial based

networking and co-operation to enhance competitiveness. But “co-operation is a delicate flower” that is not easily introduced and that can only survive over the long run if the distribution of benefits bears some perceived and acceptable relationship to the distribution of costs between partners, an outcome sometimes difficult to achieve (Parr, 2003: 15). There are at least two factors which condition the extent of co-operation. One is that some kind of identification of the citizen, the householder, the worker, the manager or the firm with the region (territory) within which the co-operation should take place, while the other is that the structure of the local government should foster co-operation.

As an integrated rural development strategy, LEADER may provide a response to the need for promoting co-operation between rural areas, and between urban and rural areas. LEADER allows experiments with local (territory-based) small-scale actions (pilot projects) using the endogenous potential of the area. The bottom-up approach allows the local community and the local players to express their views and to help define the development course for their areas in line with their own views and plans. LEADER is implemented by local action groups (LAGs) that are organised on the basis of partnerships to facilitate cooperation between different actors in order to implement integrated multi-sectoral programmes that require linkages between several sectors of activity so that rural innovation programmes can be more coherent (van Depoele, 2003:49f). This and many other positive assessments of the LEADER approach reveals the potential provided through this Community Initiative. However, most evaluations also emphasise the need for gradual and long term commitment that takes account of the limits of local actors’ participation, the difficulties of co-operation at local and regional levels, the sectoral compartmentalisation of many regional contexts, and the still limited experience on exchanges. Nevertheless, the LEADER programme has been a significant catalyst for innovative approaches in rural areas, and could serve as a model for more comprehensive rural development. This is considered further in Chapter 8.

Projects supported within LEADER may therefore support strategies using a polycentric development model by enhancing awareness of regional potentials and facilitating co-operation and networking between different actors of the agricultural sectors and beyond it. This implies close co-operation with other (European or regional) programmes which can supplement the networking of actors and increase regional effects. From the territorial perspective of rural development, many Structural Funds programmes (INTERREG, some EQUAL; Objectives 1 and 2) and environmental programmes (LIFE, NATURA 2000; Local Agenda 21) are quite relevant and provide examples of pilot actions in rural areas.

It is disappointing that only a few Rural Development Programmes (Reg. 1257/99) have taken up the option to develop integrated programmes (or to partly integrate some of their measures). The weak application of this principle seems primarily due to the institutional framework of RDP within agricultural policy and the administrative structure which favours the continuation of existing (agricultural) measures within RDP (Mantino, 2003).

Polycentric development promotes the enhancement of the accessibility of urban and rural areas through better infrastructure on the one hand, and the improved assignment of functional tasks of urban-rural relationships on the other. As most measures of CAP and the RDP are conceived horizontally and encompass all the agricultural area of the countries, there is hardly any focus on geographical differentiation or assessment of the impacts of infrastructure development on the sector. Accessibility is split into different aspects and has to be analysed on the targets to be accessed. For large parts of the programmes, there is a particular lack in coherence between RDR funds and other EU policies and funds. The dominant picture is also one of relatively weak integration between measures, and between these regulations and other national and regional rural funding. The continuing preoccupation of many RDR programmes with agriculture and the very restricted discussion of rural area problems recall the need to widen the scope of measures and address these concerns in future programmes. An integration approach would inevitably require discussions in the process of plan development of how to assign the functional tasks of urban and rural areas, and how to deal with these tasks in the proposed programme measures. It would be important to view the chances of rural areas in the framework of a re-designed spatial development policy. With about 40% of EU population living in rural regions, covering about 85% of the European Union's area, (EC, 1997, p.8) this additional perspective to the polycentricity concept is of quite considerable relevance for spatial and cohesion policy.

## **7.3 CAP and RDP Measures and EU Cohesion Objectives**

### **7.3.1 Introduction**

The adoption in July 1987 of the Single European Act which included new objectives in relation to economic and social cohesion paved the way for a more coherent EU approach to spatial development. The objectives of the Economic and Social Cohesion policies addressed via the Structural Funds have already been summarised in Section 2.3.1.

The Third Report on Economic and Social Cohesion, A New Partnership for Cohesion, (EC, 2004a) has given much prominence to the concept of territorial cohesion which goes beyond the more restrictive notion of

economic and social cohesion. In policy terms the objective of territorial cohesion is defined as helping to achieve a more balanced development by reducing existing disparities, preventing territorial imbalances and by promoting greater coherence between both sectoral policies that have spatial impacts and regional policy. Territorial cohesion also seeks to improve territorial integration and to encourage cooperation between regions. In essence territorial cohesion seeks to ensure that people should not be disadvantaged by wherever they happen to live or work in the Union. Spatial policy and spatial development strategies are critical to the promotion of territorial cohesion.

### **7.3.2 Agricultural Policy and Cohesion**

The principal instruments of the CAP prior to the 1992 reforms, namely market support and protection measures were designed to achieve multiple objectives including an expansion of agricultural output. Combined with technological advances the CAP measures contributed to increasing intensification, specialisation and concentration. The spatial distribution of the incidence of market support payments has been linked to the intensity of farming and the extent to which different farm enterprises attract support payments. Variations in the intensity and scale of farming operations are influenced by many factors which are not distributed uniformly across the regions; rather they frequently combine, resulting in some regions having distinctive sources of comparative advantage for specific types of agricultural production. The trend towards increasing specialisation when combined with regional differences in comparative advantage for particular farming types has resulted in an increased level of regional concentration of production.

In broad terms the CAP has contributed to improving the economic and social situation in rural Europe. CAP support mechanisms have helped to maintain agricultural production in some regions at levels that would not have been possible in an environment of more open competition. The specific instruments to ensure guaranteed prices and to provide protection from lower priced imports have enabled more farms to survive than might have happened in the absence of the policy. This is especially the case in some weaker rural areas where opportunities for alternative forms of economic development are more restricted. The Guidance section of the EAGGF has provided assistance for structural reform and modernisation of on-farm production and off-farm processing of farm output.

The role of the CAP in supporting the rural economy has since the late 1980s been complemented by the consolidated and enlarged structural funds. In particular assistance towards investments in physical infrastructure, water distribution systems, farmyard facilities for storing and managing sources of pollution, and also investments in targeted

training and advisory programmes have complemented the objectives of the CAP and more recently those of the rural development programmes.

The positive outcomes noted above, however, should not be allowed to disguise some serious concerns that have arisen from the application of the CAP in different parts of the EU. The empirical evidence in relation to the spatial distribution of the incidence of market price supports demonstrates that the highest levels of payments per AWU and per ha UAA tend to occur in some of the richer regions of the EU. Overall, the incidence of price supports is lowest in the poorest regions due to weaker agricultural structures, and also in regions with the highest unemployment rates. This outcome is at variance with the economic and social cohesion objectives of the EU.

Since the early 1990s there have been a number of initiatives to re-orientate the CAP towards international market conditions. The shift towards greater emphasis on supply control measures, compensation payments and more comprehensive rural development programmes has the potential to significantly alter in a positive way the relationship between the CAP and cohesion objectives.

However, the introduction of compensation via direct payments is problematic for two reasons (Buckwell, 1996): first the level of payments is not sufficiently linked to the income reductions associated with the lowering of commodity price supports which has led to over compensation of some groups of farmers especially cereal growers who are mostly located in some of the richest EU regions, and second there has not been a clearly articulated rationale to support an indefinite continuation of such payments for a once-off policy change. Extending the provision of such payments to the new member states will require significant adjustments in order to avoid further market distortions and increased levels of social inequality between the farming and non-farming populations.

The imposition of ceilings on compensation payments has ameliorated to some extent the effect of variations in the intensity and scale of farming. Thus the most recent evidence for the distribution of direct payments at NUTS3 level shows a significant degree of consistency or complementarity with the Structural Fund Objectives in relation to per capita GDP and unemployment rates and, therefore with the cohesion objectives. The contribution of direct payments to total agricultural income is particularly strong in low intensity farming regions including upland areas where cattle and sheep farming systems are the most common types of farm enterprises. They are also significant in some regions with large areas under cereals which include some relatively underdeveloped sub-regions as, for example, in Spain.

A number of issues need to be considered in relation to the role of such payments in the future, including the likely level of public support for their continuation over the longer term; the relative rate of economic return from such payments; whether they hinder or restrict diversification; and their impacts on the wider economy especially the agri-processing sector. For example, the move towards decoupled direct payments as envisaged in the Luxembourg Agreement (2003) may lead to reduced numbers of livestock that may in turn result in lower levels of purchased inputs and also less volume for processing in which case there may be further rationalisation as processors compete more for supplies. The impacts of such off-farm adjustments are most likely to be greater in rural areas and thus may make the challenge of territorial cohesion more difficult to achieve.

### **7.3.3 Rural Development Policy and Cohesion**

Progress towards establishing a comprehensive rural development policy with a stronger territorial dimension has been very slow. The introduction of the Less Favoured Areas scheme in the 1970s was the first explicit recognition of the need for special assistance in designated areas and as such was an important first step in the process of introducing a territorial dimension into a mainly sectoral policy. Despite the significant conceptual and methodological difficulties associated with measuring the impact of LFA payments it is likely that the overall outcome complements the economic and social cohesion objectives. However, any conclusion regarding the impact of LFA payments must be qualified by the following concerns:

- the small share of the EAGGF expenditure allocated to LFA payments given the severity of the problems to be overcome in these areas;
- the intra-regional distribution of LFA expenditure is linked to volume of production; thus it does not address sources of local inequalities
- the availability and scale of LFA supports, especially when coupled with other subsidies, has in some cases restricted progress in relation to restructuring of production that would lead to larger and more competitive farms.
- LFA and related supports may have also hindered efforts to promote alternative land uses, especially afforestation, thereby resulting in suboptimal resource use.

The reforms of the early 1990s included the introduction of a number of accompanying measures, of which agri-environment schemes were the most notable. Such schemes have multiple objectives. As eligibility to participate tends to be contingent on relatively low intensity farming,



though not exclusively as for example in parts of Spain, the distribution of participants and levels of payment per AWU and per UAA are expected to be highest in the weaker rural regions. Therefore, such schemes are expected to contribute to the achievement of the economic and social cohesion goals. However, the statistical analysis reported in Chapter 4 refutes this hypothesis at the level of NUTS3 regions across the EU. This result may reflect a tendency for some member states to give higher priority to agri-environment measures in response to the severity of the problems that have already arisen from their intensive production systems. Given the variation between member states in the operating rules for agri-environment supports it is necessary to interpret cautiously any EU level generalisations.

It is also necessary to qualify any conclusion about such payments by relating the level of expenditure to the total level of support provided under the CAP. The positive contribution of agri-environmental measures in weaker regions may not be sufficient to counter the effects of product supports in the stronger regions. Therefore, it is likely that for specific regions, total CAP expenditure continues to be at variance with the economic and social cohesion objectives. While it is difficult to empirically test this hypothesis across all the regions of the EU the evidence for Ireland in the late 1990s is supportive.

The desirability of a transition to a more elaborate framework for sustainable and integrated rural development was first discussed at the 1996 Cork Conference on Rural Development hosted by the European Commission. The ensuing Declaration which sought to lay the basis for 'making a new start in rural development policy' proved to be overly ambitious. The Commission proposals for Agenda 2000 introduced the notion of rural development as the Second Pillar of the CAP. However, by the conclusion of the CAP reform negotiations the commitment to a new approach to rural development was severely curtailed. The main outcome was the Rural Development Regulation RDR (1257/99) which falls far short of the objectives contained within the Cork Declaration. A further retreat from a vigorous and comprehensive rural development policy is evident in the Salzburg Declaration.

The RDR aims to provide a single, coherent package of support to all rural areas in three main ways:

- by creating a stronger agricultural and forestry sector,
- by improving the competitiveness of rural areas, and
- by maintaining the environment and preserving Europe's unique rural heritage.

These aims are to be achieved through the implementation of a broad range of measures which include as 'accompanying measures' agri-environment schemes, LFA compensations, aid for afforestation of

farmland, and early retirement aid. In addition assistance is provided for the following actions: Investment in agricultural holdings, setting up of young farmers, training, improving the processing and marketing of agricultural products, and promoting the adaptation and development of rural areas. When taken as a package these measures are a positive initial step towards the more ambitious goal of sustainable and integrated rural development and ultimately the achievement of greater territorial cohesion. However, the potential effectiveness of the RDR is limited by the fact that in many countries it amounts to little more than an amalgamation of pre-existing measures to provide support for activities close to agriculture (Dwyer *et al.*, 2002). It does not provide a coherent basis for a truly integrated approach to rural development.

The evaluation by Dwyer *et al.* (2002) of the Rural Development Programmes prepared for ten countries identifies marked differences between Member States. While agri-environment schemes are a compulsory component of each RDR Programme the relative allocation of resources to this measure is highest in some of the countries with the least severe environmental problems such as Sweden, Finland, Austria and Ireland. LFA payments are of very limited importance in intensively farmed countries such as Denmark and the Netherlands in contrast to countries with extensive upland and low intensity grazing areas as in France, Greece, Austria, Ireland and the UK. In the intensively farmed countries of Northern Europe – Denmark, Netherlands and Belgium – the emphasis has been placed on measures to improve structures and marketing.

The limited evidence available thus far in relation to the design and implementation of the RDR programmes suggests a number of significant weaknesses that need to be addressed. Fundamentally, the second Pillar is much too closely aligned with agriculture and the imbalance in the allocation of resources between Pillars 1 and 2 is so large that it is impossible to conceive of strategies aimed at achieving the objectives of sustainable and integrated rural development which are central to the pursuit of territorial cohesion. There is an urgent need to:

- place rural development as a component of comprehensive strategies for integrated regional development that explicitly recognise the extent of old and new types of rural – urban relations. Small scale localised actions are not a sufficient response to the many diverse challenges confronting rural areas. In order to achieve the territorial goals associated with the Structural and Cohesion Funds a higher level strategic approach to rural development is needed that will require closer alignment of the measures contained in RDPs with those in the Structural Fund Operational Programmes,

- ensure that the allocation of rural development assistance attaches more emphasis to medium and long-term development potential based on strategies to combine endogenous and exogenous resources and that extend the range of supports beyond the farming community (Terluin and Venema, 2003).
- Adjust the balance of support between CAP and RDP so that the outcomes from this policy area can become more supportive of economic and social cohesion goals. The traditional relationship between agriculture and rural development where the former is regarded as the driver needs to be reversed so that comprehensive RDPs can be regarded as frameworks for ensuring the long term sustainability of the European model of agriculture based on the concept of multifunctionality.
- At the level of implementation there should be more objective assessment of the relative needs for rural development and more careful targeting of resources towards the elimination of market failures that work against the achievement of rural based public goods. These include the quality of food, soil, water and atmospheric resources, biodiversity, habitats and landscape and also the development of viable and sustainable rural communities and economies. There is also a need to ensure that implementation procedures facilitate greater local participation and permit sufficient flexibility to enable local customisation of strategies. The current round of RDPs are the result of a predominantly top-down preparation process that has relied heavily on amalgamating pre-existing measures and which has maintained an approach that regards rural development as an adjunct to agriculture policy. This methodology is very much at variance with the pilot experiments involving innovative approaches to rural development promoted by the EU Commission in conjunction with local action groups with assistance from Community Initiatives such as LEADER (for a comprehensive overview of the outcomes from the LEADER approach see Moseley 2003). The intention to mainstream LEADER type programmes in the next round of Structural and Cohesion funding is a welcome move, especially if it is accompanied by an emphasis on the application of good practice principles as summarized by the Lukesch report (OIR – Managementdienste GmbH, 2004).

The challenges confronting agriculture and rural development in the new member states are very large. The analysis by Buckwell *et al.* in the 1900s pointed to many risks associated with transferring the 'western' CAP, even after the 1992 reforms, to the context that prevails throughout most of Eastern Europe. There are many instances of

dualistic production structures as for example in Hungary (Ferenczi, 2003) which require much greater emphasis on rural development programmes that can be integrated at the level of regions with other support programmes. In common with the rest of the EU there is a very strong case for shifting from a sectorally defined commodity support framework to a broader territorially defined set of integrated support measures which will support a stable and efficient food producing sector that will be embedded in sustainable rural environments populated by sustainable rural communities.

The commencement of the implementation in autumn 2002 of the SAPARD Regulation for pre-accession countries has provided an opportunity to support economic and social reforms in these countries. In general terms the measures supported by SAPARD mirror those included in the RDR programmes with the exception that assistance for early retirement, setting up young farmers and for producers in Less Favoured Areas are excluded. Furthermore the assistance towards agri-environment schemes is very much restricted to pilot actions. Dwyer *et al.* (2003) noted that the impact of SAPARD to date has been limited by the relatively small amount of resources devoted to it, start up delays and an emphasis on developing institutional capacity in the central administrations. Nevertheless, SAPARD has already had a significant indirect effect in encouraging a number of accession countries (for example Hungary) to introduce as early as 1999 alternative approaches to rural development which are similar to those elsewhere in the EU. There is an on-going need for a reallocation of further resources towards rural development which must be guided by strategies containing a more explicit territorial focus and which facilitate greater participation of a wider range of stake holders at local and regional levels. The adoption of a programme approach is a welcome initiative but this needs to be developed further with more emphasis on integration across sectors and development dimensions at regional levels, and also with more resources for local and regional capacity building. These objectives can be achieved more effectively through closer alignment of CAP & RDP policies with those for the Structural and Cohesion funds and thus ensure a more effective approach to territorial cohesion.

## **7.4 CAP and RDP Measures and Environmental Sustainability**

### **7.4.1 Introduction**

EU spatial policy has explicit goals of promoting sustainable development, prudent management and protection of nature and cultural heritage. For most of the first thirty years of the CAP the policy did not have any explicit environmental objectives. The development of EU environmental policy over the same period was very gradual and was mostly guided by a mainly reactive type approach. It is not

surprising, therefore, that the productivist orientation of the CAP until the early 1990s supported by increasing levels of intensification and specialisation contributed to a wide a variety of negative environmental impacts. These include reductions in biodiversity, degradation and erosion of soils, contamination and excessive abstraction levels of water resources, air pollution by ammonia and greenhouse gases, destruction of wildlife habitats, and significant alterations to many distinguishing features of the European rural landscape (Baldock *et al.*, 2002). The incidence of environmental damage due to late twentieth century farming practices is not confined to the EU nor indeed can they be ascribed as being even primarily due to the CAP per se.

During the socialist era in Central and Eastern Europe agriculture and food production were promoted by government plans that paid little attention to the suitability of production systems to the local environment. The pursuit of objectives related to increased production resulted in more intensive land use practices involving greater applications of inorganic fertilisers, and development of extensive drainage and irrigation schemes. While the levels of reliance on inorganic inputs remained much less than in the EU area there is evidence of considerable environmental damage.

It is important to note that in addition to the differences between the EU area and the Central and Eastern Europe regions there are also significant differences between regions in the two parts of Europe in relation to outcomes from the interaction of agricultural and environmental policies. Such differences are associated with contrasts in the levels of resilience of local environmental factors, the scale of operations and the modernisation/ productivist stage attained by agriculture in each region.

Since the early 1990s the relationship between agriculture and environmental policies has changed significantly. On the one hand the importance of promoting more environmentally friendly farming practices has been adopted as part of the CAP objectives, and indeed the elaboration of the European Model of Agriculture with the concept of multi-functionality has identified new policy relevant roles for farmers as custodians of many rural based public goods. On the other hand, EU environmental policy is now guided by sustainability principles which place more emphasis on prevention supported by a comprehensive regulatory system and there is more explicit emphasis on integration between policy areas.

In Central and Eastern Europe the reform programmes introduced following the change of political regimes in the early 1990s have resulted in a decline in the overall intensity of agriculture with fewer livestock and reduced usage of inorganic fertilisers and pesticides. The

currently widespread pattern of relatively low input and more extensive farming systems provides an opportunity for the development of more environmentally sustainable agriculture. The SAPARD programme provided an opportunity for the New Member States to include in their plans measures to support agricultural production methods designed to protect the environment and maintain the countryside. According to the EEA report on Europe's Environment (2004) many countries have included such measures in their SAPARD programmes but there have been considerable delays with implementation, and most countries have given higher priority to improving competitiveness of the agri-food sector than to agri-environmental measures.

#### **7.4.2 Integration of CAP and RDP with Environmental Policy**

The Sixth Environmental Action Programme places considerable emphasis on the integration of environmental policy with other policies. The Programme provides a binding framework for the period up to 2010. Already a significant number of Community environmental measures affect agricultural production and establish standards which farmers are required to meet. These are frequently supplemented by national and regional measures. These standards are almost entirely established outside the CAP framework. Once they are adopted the role of the CAP is to assist in their enforcement by facilitating and encouraging farmers to adjust their farming practices to the changing expectations of wider society in regard to the environment.

The Baldock *et al.* report from the Institute for European Environmental Policy (2002) has proposed a strategy for integrating agriculture and environmental policies which relies heavily on active pursuit of complementarities and synergies between the two policies. The integration of environmental concerns into the CAP requires an approach that seeks to address the broad range of agricultural production, not just individual sectors. More fundamentally agriculture policy in the future must place more emphasis on supporting a realistic alternative to the productivist model by one based on behaviours more in accordance with the principles of ecological modernisation (Hajer, 1995; Evans *et al.*, 2002). It is especially important that the levels of supports provided via agri environment measures in New Member States are large enough to encourage a high take up rate in order to avoid an orientation of the majority of producers towards 'modernisation style' productivist patterns.

Agriculture production must respect fundamental principles such as 'the Polluter Pays' and comply with international standards as laid down by Directives or Regulations relating to water, nitrates, birds and habitats, etc. Integration strategies need to be developed at national and

regional levels that will enable agriculture to comply with the requirements of the Water Framework and other directives.

The task of achieving environmentally sustainable farm management practices by means of conventional support policies is a major, if not impossible, challenge. Future patterns of agriculture production will be influenced by several factors including new technological developments, adjustments in the wider economy which will impact on the availability and cost of labour, new international trade agreements, and changes in consumer preferences with more emphasis on the quality of food and also on environmental impacts of different production systems. The reforms of the CAP can assist in achieving more environmentally sustainable production systems by restricting production aids, decoupling compensation payments from production and through greater emphasis on rural development which includes agri-environment schemes as a component of Pillar 2.

Pillar 2 provides an opportunity to significantly enhance the level of integration with environmental policy, though in order to do so effectively a significantly larger share of the CAP budget needs to be allocated to the Rural Development programmes. Baldock *et al.* (2002) have identified the following possibilities for Pillar 2 measures:

- agri-environment schemes that are designed to cater for local conditions have the potential to address a large number of environmental concerns. More attention is required in the identification of the reference levels of good farming practice, and to promoting the schemes in order to achieve higher take-up rates.
- Supports for sustainable farming in Less Favoured Areas need to be adjusted to reflect local carrying capacities,
- Greater emphasis on targeting farm investment aid towards achieving environmental standards that may become mandatory in the future,
- More support for training, marketing and processing in order to encourage more sustainable land management and food production systems.

They also propose several changes to the manner in which Pillar 1 measures are implemented including

- Amending or eliminating measures which under current circumstances provide incentives for environmentally damaging forms of production and other environmental pressures at a level which otherwise would not arise. These include aids for tobacco, cotton, sugar and also forage maize under the arable regime.
- Breaking the link in several sectors between the extent of support provided and the volume of production. A move towards

decoupling should lead to more environmentally sustainable levels of livestock production, similarly a move towards area based payments for olive production could lead to a reduction in environmental risks,

- Making more substantive use of the principle of cross-compliance,
- Incorporating environmental considerations into marketing and food labelling policies associated with the CAP market regimes.

The territorial impacts of agri-environment programmes are assessed in detail in Chapter 6. The concluding assessment is that particular agri environment measures are potentially significant in relation to their contribution to the achievement of a number of the core objectives of the ESDP and ESPON.

The horizontal measures especially in respect of organic production and training have been a feature of the programme in most Member States. However, they have been largely identified with environmentally sensitive and extensive farming areas with the notable exception of Austria where the aim is the 'ecologicalisation' of all agricultural activity.

The achievement of ESDP objectives, especially those relating to prudent management of resources, depends on effective environmental integration within the CAP. Possible mechanisms for integration include cross-compliance and a requirement of verifiable environmental standards for certain Pillar 2 measures (Baldock *et al.*, 2002).

The potential benefits of an integrated approach to EU structural and regional policy instruments are also supported by the conclusions from the Schramek *et al.* (1999) report which recommended improved integration of existing structural and regional policy and instruments such as the LFA scheme and LEADER with agri-environmental policy.

## **7.5 Peripherality and Accessibility Interactions with CAP/RDP**

### **7.5.1 Introduction**

The shift away from policies addressing core-periphery issues towards strategies to promote polycentricity (s.7.2.1) does not, of course, imply that peripherality is a spent force. During the 1990s a number of public bodies came to conclusions about the impact of new transport and communication technologies which would now (in a "post dot-com" world) be considered over-optimistic. Thus, for instance, the Committee of the Regions stated in 1998 that "Advances in communications technologies will ... bring major changes in the siting and nature of economic activity... The ESDP rightly sees ICT as a means of overcoming the adverse impact of geographical remoteness on



business start-ups" (COR, 1999). Similarly the Conference of Peripheral Maritime Regions affirmed that "The advent of information highways is one of the aspects that has raised greatest hopes in the peripheries. The entry into the century of the immaterial would at last make it possible to do away with disparities linked to geographic distance...." (CPMR, 1997). However, more recently a number of academics have voiced a more sober assessment, typified by Rietveld and Vickermann's statement that "talk of the 'death of distance'... is unmistakably premature..." (2004, p241).

There are three main reasons why "geography really does matter in determining economic growth and performance..." (McCann and Shefer, 2004 p178):

- (i) Whilst costs and journey times have followed a downward trend, both business and private users have gradually increased their demand for travel and transport (Rietveld and Vickermann, 2004 p241; McCann and Shefer, 2004 p184-6). Within the business sector this has been particularly true of high technology industries, and those which have introduced more complex logistics, associated with low inventories. Other more traditional and resource based industries, together with services offering standardised "products" have been less affected.
- (ii) The benefits of new or improved travel/transport or communications infrastructure have not been enjoyed by every region to the same extent. Congestion may neutralise the benefits in central regions. On the other hand, for remote regions the change may take the form of the reduction of a natural protection (the so-called "pump effect"), exposing local businesses to overwhelming competition from more central areas which benefit from agglomerative advantages (Rietveld and Vickerman, 2004, p245; McCann and Shefer, 2004, p186).
- (iii) The introduction of information technology has in many cases increased rather than reduced associated demands for business travel and transport (Rietveld and Vickermann, 2004, p246; McCann and Shefer, 2004, p182-184).

The principal theme of EU transport policy that is of relevance here is the Trans European Networks initiated in the 1990s. The primary objective of the TENs project is to support the Community objectives of competitiveness and cohesion. Inter-regional competitiveness is expected to be enhanced through cost reductions resulting from more efficient transport systems. The TENs project provides new links and improvements to some existing network sections, and will result in an improvement in both the quantity and quality of infrastructure. By extending the networks into peripheral regions, which are more heavily dependent on agriculture, it is anticipated that there will be greater

convergence between core and peripheral regions and, therefore, greater cohesion.

ESPON Project 2.1.1 has noted that 8 of the 14 priority projects of the TENs programme are located in peripheral regions, but that relatively large improvements in accessibility will translate into only relatively small increases in regional economic activity. In general, it is anticipated that the impact of transport investments on economic development will be larger in regions with less developed networks than in the regions with dense and better developed networks. However, Project 2.1.1 cautions that the overall impact of transport investments will depend on the competitiveness of the regional economies: a peripheral area may benefit from better access to markets but its production may also be subject to a higher level of competition from imports. These conclusions are particularly important for agriculture and rural development.

### **7.5.2 Possible Implications of CAP MTR in terms of Peripherality**

The pre-reform CAP protected EU producers from more competitively priced imports, and, through the intervention system for some products (e.g. beef), delayed restructuring towards high value added processing and thereby supported relatively inefficient sectors in some regions. It is very difficult to assess the impact of peripherality on agriculture under the CAP prior to 1992, since geographical patterns of farm-gate prices would have been very much a reflection of price support and intervention arrangements, and therefore probably more uniform than they might otherwise have been. Gross margins and incomes for certain livestock products were dominantly a reflection of direct subsidies, and this too would have had a tendency to mask the impact of peripherality. Certain aspects of the pre-reformed CAP discriminated in favour of the periphery: LFA subsidies, for instance, although intended for the hills and uplands rather than peripheral areas *per se*, naturally tended to benefit the more remote regions of the EU more than the accessible ones.

In these and other ways, the CAP has probably restrained some regions from achieving their full potential and left weaker regions more at risk from increased external competition which is enhanced by improvements to inter-regional and international transport infrastructures. Some evidence for this scenario is provided by trends in the food retail sector where technological improvements related to maintenance of food quality, accompanied by transport improvements and also by the emergence of international food retail chainstores have resulted in higher levels of competition for locally produced food products

The removal or weakening of the link between subsidy and land use under the MTR seems likely, unintentionally, to have the effect of revealing hitherto masked disparities, as peripheral areas are able to extensify production without a loss of subsidy. It is conceivable, for instance, that the Scottish Island Areas may lose a proportion of their sheep, since for some time the cost of transporting them to the mainland by ferry has exceeded the pre-subsidy profit. It has frequently been suggested (see for instance University of Aberdeen, 2001, para 3.2.12) that one of the impacts of the MTR will be to divide farm businesses into two groups, those which are large enough to enjoy scale economies, and have sufficiently productive resources, specialising in commercial production, and those which are smaller, and which have poorer land, extensifying and diversifying; subsidies allowing them to act more as countryside custodians than commercial farm businesses. It seems likely that the former group will tend to be located in the more accessible low ground areas, whilst the latter will predominate in more peripheral areas.

### **7.5.3 Peripherality and Pillar 2**

The conclusions which may be drawn from the theoretical observations presented in Section 7.5.1 above regarding the impact of the changing transport/travel cost environment upon the small business sector in peripheral regions seem unfortunately to be consistently negative. Thus it is anticipated that modern growth industries will be subject to increasingly strong agglomerative forces (due to the complexity of modern logistics, JIT and so on), whilst businesses in peripheral areas will be increasingly exposed to competition from central regions. It is within this very demanding environment that farmers (apart from the few with potential to become large scale commercial producers) will be expected to diversify and establish new non-agricultural enterprises to supplement their income. Recent research (EU Fifth Framework (Life) programme, AsPIRE, project QLK5-2000-00783) has explored the potential of peripheral regions to overcome these barriers by exploiting various local "soft" factors, such as strong human/social capital, effective governance ("institutional thickness") and balanced business networks. Given the right combination of these conditions, it is argued that even relatively remote regions may develop the characteristics of "innovative milieu" which will allow indigenous micro-businesses to compete successfully despite the centripetal forces described above (Copus, 2004). It is within this perspective that the role of the RDR in supporting the rural economy of remote rural regions needs to be considered.

Apart from the overall paucity of resources allocated to Pillar 2<sup>39</sup>, some conclusions may be drawn about current prioritisation of support to diversified micro businesses in rural and peripheral regions through an examination of the balance of budget allocations to different types of measures. In their publication "Overview of the implementation of rural development policy 2000-2006", DG Agriculture (2003) present a very useful 3-fold classification of the 22 RDR measures.

More than half the RDR budget 2000-2006 was allocated to the group of measures concerned with the environment and land management, a further 38% to a group of measures directed to "restructuring and competitiveness" (ie predominantly within agriculture and forestry), and just 10% to measures targeted on the "rural economy/rural community". A review of national plans (Williams, 2004) shows that although the balance between the first and second groups of measures varies somewhat between member states, the third group consistently receives the smallest allocation. One very straightforward implication of the likely consequences of the MTR and the impact of peripherality is that serious consideration should be given to adjusting the balance of expenditure towards the rural economy/ community measures, particularly in remoter regions where extensification and diversification is likely to be the only viable course of action for the majority of farmers. Particular attention should be paid to developing measures to strengthen local business networks (including short supply chains for locally processed quality food products) which have the potential to act as a surrogate for agglomerative advantages (Johansson and Quigley, 2004, p165).

In more accessible regions, and in those with more favourable farm structures, the likely trend towards a more market-oriented agriculture will lead to greater need for competitiveness among farm businesses. This would suggest a stronger emphasis on the second group of RDR measures in these regions. However, competitiveness will also in part be influenced by the costs of reaching markets. In this regard, it is important that domestic transport policies of member states ensure that rural-based food processing industries are facilitated to access international networks.

#### **7.5.4 Interactions between CAP and RDP with Transport Policy**

Transport and communications infrastructures have a major influence on the spatial distribution of economic activity and also on the underlying dynamics of change throughout the European territory. Project 2.1.1 is concerned with the territorial impacts of EU transport

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<sup>39</sup> The need to "adjust the balance of support" between Pillar 1 and Pillar 2 has already been stressed in Section 7.3.3.

and TEN policies. Here the concern is with the interaction between CAP & RDP on the one hand and EU transport policy on the other hand.

The principal theme of EU transport policy that is of relevance here is the Trans European Networks initiated in the 1990s. The primary objective of the TENs project is to support the Community objectives of competitiveness and cohesion. Inter-regional competitiveness is expected to be enhanced through cost reductions resulting from more efficient transport systems. The TENs project provides new links and improvements to some existing network sections. The project will result in an improvement in both the quantity and quality of infrastructure. By extending the networks into peripheral regions, which are more heavily dependent on agriculture, it is anticipated that there will be greater convergence between core and peripheral regions and, therefore, greater cohesion.

ESPON Project 211 has noted that 8 of the 14 priority projects of the TENs programme are located in peripheral regions, but that relatively large improvements in accessibility will translate into only relatively small increases in regional economic activity. In general it is anticipated that the impact of transport investments on economic development will be larger in regions with less developed networks than in the regions with dense and better developed networks. However, Project 211 cautions that the overall impact of transport investments will depend on the competitiveness of the regional economies: a peripheral area may benefit from better access to markets but its production may also be subject to a higher level of competition from imports. These conclusions are particularly important for agriculture and rural development.

The CAP support system has protected EU producers from more competitively priced imports, and also through the intervention system for some products (e.g. beef) delayed restructuring towards high value added processing and thereby supported relatively inefficient sectors in some regions. In these and other ways the CAP has probably restrained some regions from achieving their full potential and left weaker regions more at risk from increased external competition which is enhanced by improvements to inter-regional and international transport infrastructures. Some evidence for this scenario is provided by trends in the food retail sector where technological improvements related to maintenance of food quality, accompanied by transport improvements and also by the emergence of international food retail chainstores have resulted in higher levels of competition for locally produced food products.

The trend towards a more market-oriented agriculture will lead to greater emphasis on competitiveness which will in part be influenced by

the costs of reaching markets. In this regard, it is important that domestic transport policies of member states ensure that rural-based food processing industries are facilitated to access the international networks. Similarly, the marketing of products arising from farm diversification programmes will require transport systems that provide timely and cost effective access to the main centres of population.

The most likely scenario emerging for agriculture production in many regions is one where there will be a relatively small number of intensive and large-scale internationally competitive producers while the majority of farm households will become increasingly dependent on alternative sources of income. The opportunities for additional income will be influenced by trends in the non-farming economy, especially in the services sector and will need to be assisted via comprehensive rural development programmes. This inter-sectoral shift also has implications for spatial patterns of development with urban centres having a vital role. The nodal position of small towns in respect of several networks is likely to be a critical influence on their level of competitiveness as locations. In order to maximise the opportunities that may emerge from rural development programmes it will be necessary to ensure that the quality of local transport infrastructures is enhanced in order to facilitate spatial integration at the local and regional levels as well as integration with networks providing access to national and international markets. The quantity and quality of the domestically provided local and intra-regional infrastructure is probably at least as important for successful rural development as are the inter-regional and international networks which are the main focus of EU transport policy to date. Thus, in summary, there is a need for better coordination and closer integration of supranational, national, regional and local transport policies that will enhance the competitiveness of agriculture-based and other rural enterprises.

## **7.6 Conclusions**

This chapter has examined the main concepts of the European Spatial Development Perspective - namely, balanced competitiveness and polycentricity, cohesion, environmental sustainability, and peripherality - in the context of the CAP/RDP. It is noted that these concepts (except, perhaps, environmental sustainability) have an urban "bias" in the sense that they perceive urban settlements as the main focus of "development", leaving the major proportion of land (and water) as residuals to be affected or encroached upon by urban expansion and activities but not as the location of new and viable (economically or environmentally) enterprises.

From this perspective, the CAP and most of the RDP, with a focus on farming and farm-based activities, suggest an expansion of the above concepts, particularly at the local/regional scale which may have somewhat been neglected within ESDP discussions. However, the CAP's Pillar 1 cannot be expected to maintain an unchanged agricultural structure or unchanged urban-rural relationships; at best, it can - through its reform - assist in the restructuring and diversification of farm household businesses to meet the challenges of developments at local/regional, national and EU/international levels. Moreover, the so far limited establishment of Pillar 2, within which non-farm-centred instruments such as Article 33 measures and the LEADER Community Initiative play a still more restricted role, cannot be expected to deliver major returns within rural economies. However, these measures have had positive administrative and institutional effects in showing what is possible using a local and bottom-up approach, and in emphasising the need for a joint or integrated urban-rural approach. Nevertheless, there are problems of matching CAP initiatives with those in other EU policy areas, such as (non-farm) structural policy and environmental policy, which are often much more top-down and sometimes city-based, in approach.

From the point of view of cohesion, the CAP has certainly helped to support and stabilise farm household incomes, thus maintaining territorial cohesion between farm and non-farm social groups. This is particularly true in marginal areas where incomes might have fallen (or out-migration occurred) at rates inconsistent with spatial cohesion. Nevertheless, the main component of CAP support, i.e. Pillar 1, has benefited the more prosperous parts of the Community, and therefore militates against EU-wide cohesion. As regards rural development, the very broad nature and objectives of this EU policy area, and the rather different and often limited approaches taken by different EU-15 Member States in applying RDP, make it difficult to assess cohesion effects. The LFA instrument has had a general and positive effect on cohesion, but the agri-environmental aspects of RDP have been much more emphasised in the more prosperous Member States, with probably an unbalanced effect at EU level.

As regards environmental sustainability, it seems generally agreed that the unreformed CAP, through encouraging the intensification, concentration and specialisation of much of EU agriculture, has had a negative overall effect on wildlife, landscape and water quality. The reformed CAP may go some way towards reducing these effects, but is unlikely to be sufficient to encourage environmentally sustainable

“post-productivist” agriculture on a widespread basis. Further substantial moves, including more substantive use of the cross-compliance principle for CAP payment entitlement, and marketing developments which promote consumer demand for food products sourced from environmentally friendly farming systems, will be needed.

Finally, agriculture and rural development generally is affected by changes in the peripherality (or accessibility) of rural areas, e.g. via the EU’s TEN projects at macro level. In particular, communication improvements to and within more remote areas seem likely to affect farming more than those in already well-connected regions. This occurs via better access for farm inputs and outputs, or by alternative demands for rural resources such as for first or second homes and tourist enterprises.

All these conclusions apply *a fortiori* to the New Member States, where farming and rural areas generally start from a less developed base, and the CAP/RDP, along with the general effects of EU accession, is likely have profound effects. It is particularly important to try to ensure that the high environmental quality of some (though not all) rural areas in the NMSs is not damaged by the introduction of modern technologies and the introduction of strong EU-wide competition in farm input and food product markets.



## **8 Good Practice in Rural Development**

### **8.1 Key Rural Development Dimensions**

#### **8.1.1 Introduction**

This chapter attempts to inform the administration of better rural development policy through examination of the principles and application of “good practice”, i.e. the methods and organisations by which support can be brought to bear on the social and economic objectives of this policy area. Section 8.1 discusses a number of “key dimensions” of rural development, such as diversity, valuation and institutional frameworks, while Section 8.2 outlines seven “determinants” of good practice. Section 8.3 describes seven case studies in various parts of the EU-15, where success (in most cases) has been achieved in a number of different contexts.

Section 8.4 takes a more general look at Pillar 2, followed by particular consideration of the LEADER approach, and the special circumstances of adopting the EU’s rural development paradigm in the New Member States, as represented by the planned Rural Development Programmes of those countries. Section 8.5 provides an overall summary.

#### **8.1.2 The Concept of Rural Development**

Rural development as a concept comprises a wide set of notions with different priorities. Given the vulnerable and often less successful economic performance of many rural areas in comparison to urban areas the economic issues and viability is a core question in the light of future development.

It is now common understanding that a pure sectoral approach is not successful in enhancing and stabilising a regions performance; all the same, the notion that rural development goals widely overlap with agricultural policy is still immanent. Though agriculture plays a major role in shaping the rural landscape, it has been made clear that rural citizens, including most farm families, depend on employment and income generated by a complex mix of interacting economic activities. Therefore an integrated, territorial approach is needed to ensure regionally balanced development and social, economic as well as territorial cohesion.

A comprehensive definition of rural development argues that *“rural development is increasingly viewed as a territorial concept involving increases in the welfare of rural citizens, including incomes, and quality*

*of life*" (Bryden, 1999). This concept in its broad approach can also be subsumed in the concept of 'sustainable rural development'. It marks a shift from the concept of rural development concerning mainly economic growth and sectoral approaches to a more 'holistic' concept covering economic, social, environmental, and spatial dimensions.

The notion that rural and urban areas are distinct territories with distinctive relationships and cultures is challenged by a rising understanding that urban and rural areas are inter-linked in a complex and multidimensional way, a notion which is reflected in the recent discussion of urban-rural relations and partnerships approach as well as the impact of the concept of polycentricity on territorial performance. The various relationships (physical, economical, financial, informal, etc.) are currently investigated particularly by the ESPON project 1.1.2 on urban-rural relations.

### **8.1.3 Rural Diversity**

The ESDP describes rural areas as "complex economic, natural and cultural locations" (EC, 1999, para 89) which differ markedly from one another in their economic structure and activity, their natural and human resources, the peripherality of their location, their demographic and social conditions, and culture. This diversity is widely perceived as promising prospect to cope with change and develop new bases for economic and social life. A uniform development trajectory for rural areas does not reflect the actual tendencies under these circumstances. On the contrary, rural diversity is challenged by a number of divergent, place-specific trends and incidents.

Although the forces driving change may be similar across rural (and indeed urban) areas, their relative importance and their consequences will certainly differ from one region to the other. Many rural areas especially in remote and sparsely populated areas appear to be facing particular problems with economic development and adjustment processes. Agriculture as a source of rural employment and income is declining and further job opportunities, especially well-paying jobs, are often scarce. Per-capita incomes are well below national averages and levels of public services and the quality of many kinds of facilities is decreasing.

Working-age people, and especially better-educated younger people, due to the apparent difficulties in meeting their expectation on jobs, educational and leisure facilities, may move elsewhere to find better chances and opportunities. The loss, especially of younger people, along with in-migration of retirees in some places has left many rural areas as "ageing" areas and revealing the particularly strong expressed feature of the ageing European society.

This demographic change endangers the rural fabric and leaves, particularly peripheral, rural areas socially and economically neglected, losing the critical mass which is necessary for the establishment and maintenance of facilities, services, and infrastructures. A development that also concerns farm families to a great degree as they rely on a 'living countryside' as well, where they can access the services, infrastructure, and supplementary employment they need (Bryden, 1999: 8).

On the environmental side a declining population could be a relief of human pressure and an enhancement of natural assets, while on the other hand out-migration and the giving up of mostly small farms in less favoured regions reduces the variety of historically developed methods of land use and threatens the originality of cultural landscapes. Moreover non-cultivation of formerly utilised agricultural areas may lead to natural hazards such as landslides, avalanches, etc. Physical change of landscapes is also provoked by agricultural intensification processes which tend to lead to more uniform landscapes and a loss of biodiversity which might threaten the highly valued cultural landscape development.

On the other hand, the population in rural areas, particularly in reach of greater cities and agglomerations, is growing steadily reinforcing the trend towards scattered settlement development and pressures on land use on extended parts of rural areas. Overexploitation, competing demands and interests may threaten the rural diversity as a whole and especially the provision of amenities, cultural heritage features and the environmental performance.

#### **8.1.4 Differential Economic Performance in Rural Areas**

Understanding the reasons for differential economic performance and more or less competitiveness in rural areas could thus be a key element in devising practical strategies and programmes for sustainable rural development. Tangible factors such as natural and human resources, investment, infrastructure and economic structure have been analysed as the almost unique decisive factors for economic development for a long time. Transport infrastructures, inward investment and towns with additional functions to agglomerations are often mentioned as important conditions for a vibrant rural economy. In the current discussion of recent years less obvious features of an area's economy, which refer to social arrangements and their human participants which cannot be measured and assessed as easily, are gaining importance ('less tangible' or 'soft' factors). Recent literature supports the idea that various kinds of social, cultural, institutional, environmental and local knowledge constitute the basic capital for

regional development which has high significance when seeking to understand the differences in economic performance. Especially social capital has been addressed as shaping the basic preconditions for successful and lasting regional development. The EU project "Dynamics of rural areas" (DORA) has analysed these dynamics and has identified five areas of less tangible factors:

- market performance (how markets work in practice),
- institutions (how local people perceive and use the institutions which are intended to serve them),
- networks (the personal networks which link public and private sector organisations),
- community (the sense of community as basis for co-operation), and
- considerations of quality of life affecting individual choices (Bryden and Hart, 2001: 35).

It is the *relationship* between *tangible and less tangible* resources and how they interact in the local context which give rise to or condition different opportunities and constraints for local development. Although mainly tangible resources have long been in the centre of economic development in rural areas recent literature of rural development increasingly refer to the view that "it is not so much the tangible resources themselves that matter for economic performance, but the way the local people are able to exploit those available to them and sometimes to ensure a favourable flow to transfers in their direction" (Bryden and Hart, 2001: 45). In other words it is the ability to transform stocks into flows: valorise national and man-made assets, strengthen the economic environment, improve institution capacity. Thus 'less tangible' factors determine the efficiency and effectiveness with which tangible resources are used and are most important in making the difference (Pezzini, 2003: 5).

### **8.1.5 The Role of Entrepreneurs and SMEs**

While there are numerous examples of rural places where local (individual and social) enterprises work in a cooperative and flourishing way it is by far more difficult to establish such enterprises in places where they do not exist. As the analysis of the DORA-project revealed, there are quite variable conditions underpinning presence or absence of local entrepreneurial capacities. A key issue to emerge in this respect is an effective and open governance with a positive attitude to small local enterprises and entrepreneurs and local public institutions with sufficient autonomy to adapt policies and specific measures to assist with the collective needs of local enterprises. Furthermore open and inclusive 'soft' networks are positively related to the mobilisation of

entrepreneurial capacity and local initiative. Good co-operation between public, private and voluntary actors means that information on a wide range of significant matters circulates widely and freely. Nevertheless, networks have an ambiguous relationship with economic success. In those places where network appear to be exclusive and associated with a notion of an 'elite group' rigid network structures can inhibit or prevent new entrepreneurs.

It is important that social capital conditions, cultural context and the regulation framework induce a positive climate for entrepreneurship, especially in small and medium enterprises "through reducing the costs of information and transactions, reducing risk and uncertainty, creating local public goods which are adapted to support enterprises and encourage new enterprises with positive feedback to the rest of the economy" (Bryden and Hart, 2001: 28).

### **8.1.6 Valuation of Rural Amenities**

It is now commonly agreed that rural areas may contribute to the quality of life because they of their particular rich variety of amenities. Thus, when talking about the future of the countryside the cultivation and management of the use of rural amenities is getting to be a key issue.

Rural amenities range from "almost intact nature" such as native forests, desert wilderness or high mountains to amenities which develop from the interaction between nature, and man-made amenities. Most rural areas have been transformed by human activities over long periods of time and these interactions are often important sources of amenities such as farming landscapes or forestry. Man-made rural amenities are expressed furthermore in cultural traditions, historical monuments or artefacts.

In the current discussion of rural development the cultivation of rural amenities is seen as a promising resource because it offers new economic opportunities to rural areas where the economy often lags behind. Rural amenities are strongly associated with specific territorial attributes. Their value stems from the unique features of a given region which cannot be (easily) replaced or exchanged (less-mobile). Thus, it gives the same region a chance to enhance its competitiveness through 'cultivating' the place-based social, cultural, and environmental assets.

The increasing value of rural amenities is related with the improved transport links that make recreation in rural regions easily feasible as well as residential use an attractive perspective for an increasingly part of population. Above all the valorisation trend has to do with the growing demand on the part of urban dwellers who dispose to a rising

extent of the means to enjoy amenities in the countryside which they miss, on the other hand, in the densely populated environments of agglomerations.

This high valorisation from outside the regions contributes to strengthen the high value on amenities expressed by local people, which symbolises their distinctive cultural identity. The successful cultivation of rural amenities needs both, the regional identification of natural and cultural amenities with the desire to preserve it, and favourable structures of decision-making processes in the region. This includes for example local institutions with capacity to recognise the market value and who is able to organise and co-ordinate supply and promotion of the specific local amenity.

However, the relationships between amenities and rural economic development are not as simple and straightforward as it seems to be and the outcomes vary decisively. The OECD describes three types of relationships between amenities and rural development (OECD, 1999):

- *Synergy* is apparent when preserving amenities supports development. For example, sustainable tourism stimulates economic activity and the arrival of new populations in the countryside without destroying the underlying amenity.
- *Antagonism*: i.e., when preserving amenities dampens the rural economy. Sometimes, preservation reduces rather than increases human activity so that economic growth is constrained. But on the other hand an excessive use, caused e.g. by mass tourism, endangers amenities provision and the dependent economy development.
- *Interdependence* is apparent when economic stagnation negatively affects amenities. Man-made amenities require at least some economic development. When a rural area is depopulated because of economic decline, the associated cultural values and environmental resources are both threatened.

Clearly, the aim of exploiting amenities for rural development is to enable and support synergy effects. Therefore a primary objective of amenity policy should be to "first establish supply at a level that matches existing demand and assumes demand by future generations and, second, protect amenities from irreversible damage so that a range of future uses is ensured" (OECD, 1999, p. 33).

### **8.1.7 Institutional Framework for Territorial Policies (Rural Governance)**

Rurality is no longer synonymous with agriculture nor is it synonymous to decline. Given the varied nature and the multiplicity of challenges and developments that rural areas are facing, they cannot be addressed solely by agricultural policies. A key policy issue is therefore, how to get greater positive inter-relationships and synergies between sectoral policies in different spheres like economy, environment and social affairs. A multi-sectoral approach which includes the territorial dimension is thus crucial to respond to rural demands.

In recent years the appropriate level of decision-making with regard to rural development became a matter of discussion. The diversity among rural places and its characteristics makes it very difficult and inappropriate to design policies at a central level (EU or national), which can take into account locally specific needs as well as geographically balanced economic development for a nation (and for the EU). To enable the use of knowledge dispersed in the various rural areas, to secure the necessary consensus for policy implementation and to strengthen effective participation in decision making the implementation of an active role for different levels of governments (local, regional, national, supra-national) seems to be necessary. Thus, countries increasingly pursue decentralisation and devolution of policy making towards regions and localities in order to better meet diverse needs and conditions found in rural areas and tap local knowledge and other resources. The demands on rural policies are that they should be both locally and participatory comply with bottom up principles and be appropriately linked to top-down structures of support. The EU-LEADER programme for example among other innovative local pilot programmes seems to be a successful approach to stimulate such an integrated development using the endogenous potential of the area.

In relation to institutional needs it has to be taken into account that the development of rural areas is based more and more on interactions between different adjacent areas and inter-regional exchange across greater distances. Co-operation between communities and the putting in place of horizontal partnerships between public and private actors reflect a place-based approach to development and cut across traditional administrative boundaries. Within these new forms of territorial development, municipalities constitute micro-regions, territorial pacts, and different sort of consortia that tend to become the interface through which policies will be implemented. These most flexible forms of governance permit governments to exploit better local complementarities and, to ensure continuity in infrastructural development through sharing of public investments.

In this context, it is important to analyse the exact role of administrative units (municipalities, districts, regions, etc.) and to propose a framework for maximising their contribution to rural development. Pezzini (2003: 12) focuses on the following principal issues which should illuminate the interplay of different levels of policies and sectors as well as the process of involvement of local people:

- “Structures and rules that governments put in place in order to promote or support local initiatives.
- Inter-sectoral co-ordination and coherence.
- Finance and incentives (own tax revenues, contributions, subsidies, etc.).
- Contracts and the process of negotiation .
- Learning processes to strengthen their role in the design and implementation of development policy, which raises the issue of the human resources available and capacity building.
- Actors involved (including civil society participation and role).”

From the perspective of the national governments, rural policy design and implementation in the recent past has to do with the fact that local and regional governments have been brought more strongly into the picture. This recognition of the crucial role of local levels decisions is shared both by local and national governments. However, also at the level of central government, there is an intensified need for acknowledgement of rural issues in shaping national territorial strategies and very often there remains considerable room for improvement in co-ordination of various ministries and departments responsible for policies affecting rural development. Some key elements of these adjustments and policy reform strands seem to be (Bryden, 1999; Pezzini, 2003): policy-proofing by a senior inter-departmental or inter-ministerial group to ensure that all policies (for example in addition to classical regional support schemes, and agriculture and rural development policies, policies for housing, transport, telecommunications, health, etc.) consider the rural dimension; the allocation of rural co-ordination responsibilities to one senior ministry or department which must chair the inter-departmental or inter-ministerial group; and the establishment of national or supra-national networks of local partnerships (as for example in the European LEADER Observatory) which exchange information, run training seminars, and provide documentation on “good practice”.



## 8.2 Determinants of Good Practice

The assessment of policy application requires a framework to relate experiences from case studies. In general the type of place-specific action makes it rather difficult to compare implementation impediments, and factors of success or failure. Nevertheless a series of principles and general considerations was established prior to case study execution to guide these. The following items highlight the approach and key elements of an integrated concept to rural development. According to the nature of the instruments some elements are more appropriate for specific measures than others.

1. "Good Practice" includes "Good Structures", i.e. the shape, size, etc. of the organisations and agencies that promote rural development. Together, these might be termed "good institutions", where "good" means "appropriate, given policy goals and available resources", and (in accordance with social science generally) "institutions" means both organisations (e.g. agencies, firms) and rules (e.g. the state of contract law, corruption, behavioural norms, etc.).
2. "Good Practice/Structures" might well include organisations in the private (and voluntary) sector, i.e. entrepreneur groups, and businesses. However, the prime focus of the project is on CAP impact and thus we did not concentrate on non-organised individuals (e.g. consumers, maybe also individual entrepreneurs) in our investigations of "good practice".
3. Depending on the nature of the instrument assessed and the information available within each case study, it may be possible that only some of the following items are addressed (or parts of them):
  - eligibility for policy support, i.e. private "structure" should match policy measure
  - willingness and ability (e.g. education, time/distance) to participate in policy administration (public-private partnerships, representation on policy committees)
  - willingness and ability (e.g. financial) to take up policy measures
  - appropriate (i.e. "good") business ownership and structure, e.g. (possibly) local ownership rather than distant or (inter)national ownership; single rather than multiple sites/plants; competition rather than quasi-monopoly
  - supportive structures for policy-induced diversification products
  - appropriate organisations to reflect increased valuation and demand for preserved and improved environmental conditions, e.g. cultural landscapes.
4. "Good Practice/Structures" in rural development policy can be defined more or less independently from the goals of any particular rural development measure. The elements of good

practice/structures are experienced across rural regions and case studies are oriented towards revealing interesting cases of good practice in the respective fields.

5. The known/assumed elements of good practice/structures include:
  - adequate eligibility (enough potential take-up)
  - efficient administration (public) and business management (private)
  - adequate consultation (before policy implementation is finalised)
  - adequate advice (while policy is implemented)
  - adequate support structures
  - appropriate co-funding requirements.
6. The selection of case studies (areas) was not restricted to “good” practice, but was intended to focus on a selection of “representative” examples of the diversity of regional application and relevance of the various instruments:
  - availability of relevant evidence from existing studies, personal contacts, possible primary fieldwork
  - linkage to NUTS3 areas and ESPON indicators.
7. Our focus was placed on Pillar 2 measures, in particular the core of the “accompanying measures” in 1992. However, the exact focus and balance of case study work had to be reviewed with partners according to availability of cases. Moreover some additional information from LEADER Community Initiative has been included, as the discussion of mainstreaming has turned out to become a major issue for future policy development.

### **8.3 A Selection of Good Practices in Rural Development**

The application of rural development programmes throughout Europe has been described as very diverse. The aim of this chapter is to highlight some examples that present either innovative approaches or representative use of the framework provided by RDR. As Dwyer *et al.* (2002) have found, innovation in RDP across Europe has occurred both at the level of programme design and resourcing, as well as at the level of individual project and initiatives. Many examples would demonstrate notable flexibility and tailoring of measures to meet local circumstances and potential. In this respect it is notable that the strongest examples relate to developments which precede Agenda 2000, either coming from previous experience with Structural Funds or from essentially separate national or more local initiatives. This finding has been underlined by various research on local initiatives and relevant factors of success, which particularly pointed to the social capital base (see RESTRIM project) and the institutional development within the local

area (see ISDEMA project). Thus the examples of innovative approaches cannot be detached from support mechanisms and structures, at all administrative levels, impacting on the actual performance of rural development.

Examples have been selected so as to address the different instruments analysed and reflect the on-going policy discussion on future reform. As they are examples, of course there would be a lot of additional, more detailed information. Analysis of "Good Practice" include analysis of the institutional context and behaviour for Pillar 2 and the selected case studies highlight particularly programmes and initiatives with a more decentralised organisation trying to support endogenous development of rural areas and with high participation in less favoured areas. The cases presented in the next sub-section include:

- (1) Differentiation of compensatory allowances for LFA in Austria
- (2) Ireland Rural Environment Protection Scheme (REPS)
- (3) CTE (contrat territorial d'exploitation), France
- (4) "Cheese Route Bregenzerwald", LEADER, Austria
- (5) Rural Tourism in Italy
- (6) PRODER Andalucia, Spain
- (7) POMO and POMO+, Finland

### **8.3.1 Differentiation of compensatory allowances in Austria**

The landscape of Austria is characterised by the high proportion of mountain areas (70%). Together with other less-favoured areas and areas of specific handicaps almost 80% of the total land area, and 70% of the utilised agricultural area (UAA) are classified as LFA. This situation has led already in the 1970s to the first support measures for mountain farming, and at the same period to the start of comprehensive mountain regional programmes. From the beginning, linkage of the different policy strands has been esteemed to be crucial in mountain development, as mountain farming was assessed to bear a particular role in safeguarding the sensitive eco-system and thereby the multifunctional landscape and working and living space.

Although Austria has a particularly big rural development programme (with 9.5% of EU funds for RDP spent for the Austrian programme), the budget for the measures relating to LFAs reaches approximately 29% of total Austrian RDP costs. This underpins the long-standing commitment for this type of support in Austria and contributes, together with the agri-environmental programme (ÖPUL), to meet the objectives of compensation for special services provided by LFA farmers, preservation of assets, and improving competitiveness of agriculture in these large regions (Hovorka, 2003).

The gradual extension of the compensatory allowances scheme to farms outside the mountain area increased the interest on the differentiation of compensatory payments. In general, it has been implemented through a base category and higher support levels for mountain farmers. The base category which is relevant for farmers in other less-favoured areas, in areas with specific handicaps and those farmers in mountain areas with limited production difficulties (particularly on flat areas in the valleys) is set at about 40% of the maximum level of support. Compensatory allowances for mountain farmers are differentiated through a complex system of measuring the agricultural production difficulties and regional situation of affected mountain farmers.

Since the early 1970s a differentiated classification system (of 4 groups) has been the core element for defining the support payments for mountain farmers. The main criteria for the classification were the climatic conditions and the "internal transport situation", i.e. the proportion of agricultural area of the holding that had a gradient of at least 25%, or of at least 50% for the farms with highest difficulties (group 4). This differentiation of mountain farms operated until 2001.

The change to a more differentiated payment structure was planned and prepared during the 1990s and a revised classification system (Tamme *et al.*, 2002) has been applied since 2001. In addition to the most relevant aspect of "internal production handicaps" (already used in the former classification system), further indicators of external transport situation (accessibility of farm, regional situation with regard to public transport and general service, factors of isolation and overall regional economic performance) and soil and climate indicators are included. The application of the new system has been made possible through data gathering on farm plot specific information for all mountain areas. Moreover this information is updated and changes in farm management are included in the yearly calculation of compensatory payments. By summing up the relevance of 15 separate indicators a composite degree of production difficulty for mountain farms is achieved. This can have values between 0 and 570 points and thus provides a classification of individual farms which avoids adverse effects at the limits of groups.

The transparent system makes it possible for each individual farmer to check his classification and the particular profile of production difficulty. With the application of the system the long work on the establishing of the system should pay off, as the yearly up-date and the more accurate system receive greater acceptance among farmers than previous crude classification of groups.

### **8.3.2 Ireland: Rural Environment Protection Scheme (REPS)**

#### **Context**

Post 1973 modernisation of agriculture (Ireland's accession to EEC) – economic and social benefits but negative environmental impacts:

- Pollution from silage effluent and animal slurry
- Excessive fertiliser applications- eutrophication of lakes and rivers
- Contamination of ground water
- Land reclamation and drainage- destruction of wildlife habitats
- Loss of sites of historical and scientific interest
- Visual intrusion of farm buildings on landscape
- Increased livestock numbers – increased levels of methane gas – breaching Kyoto targets

Very little agri-environment support prior to 1992

REPS devised by Department of Agriculture and Food and launched in June 1994

#### **Objectives**

- To establish farming practices and production methods which reflect increasing concern for conservation, landscape protection and wider environmental problems/issues.
- To protect wildlife habitats and endangered species of flora and fauna
- To produce quality food in an extensive and environmentally friendly manner.

Eligible farmers entitled to payment of €151/ha to max of €6040 (1994)

#### **Application**

- 11 horizontal measures
- 6 supplementary zonal measures

Characteristics: universal availability, voluntary, restriction of payments to <40 ha, inclusion of training element

#### **Adoption of REPS**

Initial target approx 45,000 farmers (25% of total), 1.3 million ha  
2003 (Oct) 37,000 participants (29% of total farmers); 1,312,200 ha  
Highest participation rates principally in areas with small farms and extensive farming systems; low rates in most intensive farming (and most damaging) areas

#### **Conclusions**

- REPS of greatest benefit to low income small farms in more marginal farming regions
- Compensation payments not sufficient to encourage intensive farmers to adopt

- Evidence of improvements in farming practices leading to reduced environmental impact (reduced application of inorganic nitrates and phosphates); very little evidence of environmental enhancement (especially in relation to habitats and biodiversity).
- There are particular concerns about lack of monitoring and the absence of specified targets.

### **8.3.3 CTE (contrats territorial d'exploitation), France**

The most prominent innovation in the French RDP was the CTE. They were developed from the French agri-environment measures introduced after 1992. It comprised a combination of national measures, available over the entire national territory and 'local operations', drawn up by the regions in response to local circumstances. These local operations which eventually numbered over 300, were largely considered a success both in terms of their acceptance by the farming community and in terms of their environmental and agronomic impact. The innovation of the CTEs was to group these local operations into a series of generic component 'measures', and to link them into a wider multifunctional and rural development framework. The result was a national catalogue of around 80 generic agri-environment measures and over 150 generic contract types, tailored to particular agricultural or environmental circumstances. Appropriate measures from this catalogue are then combined with other measures available for farm development (notably farm investments, setting up young farmers, and early retirement measures to produce generic contracts at the Département (county) level, comprising both voluntary and obligatory components.

The CTEs have the following characteristics:

- they are contractual, between the farmer and the state
- they explicitly link farm development to environmental management
- they address the multifunctional role of farming in that they offer a package of measures designed to respond to the economic, environmental, territorial and social role of farming
- they are based on a 'bottom-up' approach in that individual contracts are constructed to fit local circumstances
- they encourage collective local action – CTE can be drawn up and piloted by groups of farmers in response to specific local demands and concerns.

Inherent in the CTE approach is the decentralised implementation. The counties prefects determine the measures to be employed in the CTE available in the county. Local Chambers of Agriculture have a key role in establishing local contracts and encouraging farmers to apply for collective CTE projects. Finally a regional commission must approve both the model CTE measures available and the individual CTEs within

the county. These new bodies include local political leaders, farmers and representatives of the local agri-food sector, territorial development agencies and local environmental organisations.

Too high expectations and restrictive evaluation lead to the transformation of the scheme into CAD, *contrat d'agriculture durable*, in 2003. However, CTEs signed until July 2003, have amounted to almost 50,000 farm holdings, representing 12% of French professional farmers (Vindel, 2004). The rate of contracting is reported to be higher in the east and south of France, and even higher in less-favoured areas, which is assessed as meeting one of its objectives. With all its difficulties in implementation, due to the administrative and technical complexity, it has favoured environmental friendly practices and raised the awareness of the environmental issues among farmers and their organisations.

#### **8.3.4 "Cheese Route Bregenzerwald": LEADER, Good practice in territorial rural development in Austria**

The "Cheese Route Bregenzerwald" was the strategic lead project of the LEADER II programme in the most western province of Austria, Vorarlberg. The main objective was to emphasise the uniqueness of the region's products (especially cheese) and to increase the region's value added of cheese production by about one third (from 4.3 million Euro to 5.8 million Euro), thereby contributing to assure the livelihood of the rural population, reduce the quantity of commuters and help to create new jobs in tourism and trade. 191 members from the fields of agriculture tourism, alpine dairies, alpine pasture management, accommodation services, trade and commerce formed the largest sales consortium in a rural region in Europe. The association established an organisation where all the ideas to be implemented in the project were brought together, providing a service point for its members. Responsibility for the activities was with the "Regional Development Bregenzerwald plc".

Right from the beginning (and even already before the "project" started) the importance of co-operation has been emphasised by representatives of different sectors, particularly from the agriculture and tourism sector, and therefore the preconditions for a multisectoral co-operation can be assessed as substantially favourable. Specific requirements and needs of the region have been discussed in numerous meetings of (key) actors and also in lectures with inhabitants of the region, leading to increased consideration of these aspects in the concept.

The strong personal involvement and inter-linkages of the diverse organisations participating in the process contributed to the high

degree of stability and willingness to co-operate. Thus, although the public sector held the overall responsibility and initiative for the projects, the private sector came up with essential ideas and, as they work for their own livelihood, also financed a significant share of the implementation costs. There was also a strong commitment between the members of the co-operation towards further developments of the "Cheese Routes". The pilot project induced the realisation of a remarkable number of related projects, which positively influenced and supported each other, like collective investments in facilities for the preparation and presentation of cheese and in innovative products (e.g. the projects "Käsezwickel", "Käseträger", "Käse&Design"). The association "cheese route" is still in charge for public relations and concerned to improve product presentation, e.g. via its web page. Members are primarily dairy farmers, alpine dairies, restaurants, retail shops and stores, but extend to other actors as well.

Main factors contributing to the performance achieved through the measure were the holistic concept, inclusion of multiple beneficiaries, participation as a guiding principal for regional governance which is based on a long tradition of citizen's action, an innovative multi-stakeholder partnership, as well as the integrated marketing concept which was able to establish a new high quality brand enhancing positive development for regional and supra-regional sale of products.

The consequences of the project are highly favourable. The regional economic performance could be improved as well as the livelihood of the participants. The long tradition of co-operation could be even strengthened through the large number of participants and different professional backgrounds in the project. Traditional agricultural exploitation of the landscape which is not only without risks but a precondition for the cultural landscape quality, could be widely maintained. The region Bregenzerwald is currently applying for the admission as UNESCO world heritage region (within the LEADER+ programme).

### **8.3.5 Rural tourism in Italy**

Since long agri-tourism activities are widespread in some European regions. With increasing diversification a rising number of farm households has engaged in tourist activities and gradually expanded the offer, reflecting the shifts in demand trends. Particularly the efforts of local development programmes, like LEADER, have enhanced the activities and brought about a variety of new activities. Italy is one of the countries where both a highly intensive mass tourism and agro-tourism activities can be found. A manual on agro-tourism within LEADER II reveals the wide range of regional regulations and activities possible under the scheme (Hausmann, 1996).



*Agriturismo* (farm tourism) offers significant advantages for the province from a sustainability point of view. It broadens the types of tourist attractions and activities offered by the province. It appeals to tourists eager to learn more about local cultural patterns and economic activities, providing a stimulus for forestry and environmentally friendly activities. And because the benefits are more evenly shared throughout the province, it plays a revitalising role in the most deprived areas, generating additional income for farm household and local communities with few other substantial economic activities. A territorial review of the *province Siena* carried out by OECD has underpinned the strategic role of agri-tourism in this highly advanced tourist region (OECD, 2002c). Based on a series of qualitative trends in tourism more sustainable types of tourism are looked for. Agri-tourism has developed over the last decade as a particular highly demanded type of tourism with constantly high increase rates. The province of Siena is the second most important area in Italy of *agriturismo*. Bolzano, Siena, Perugia, Florence and Grosseto are, in decreasing order, those with the highest concentration of *agriturismo* units, together accounting for 41% of the national total (ISTAT, 1998). In Siena the increase has led to a situation where *agriturismo* offered already 32% of the areas tourist beds (in 1998). In nearby *province of Perugia* a similar positive trend for agri-tourism can be seen (Ventura *et al.*, 2001).

The vitality of agritourism can be explained by several factors. On the offer side, the need to diversify agricultural activities and the direct and indirect incentives deriving from the Rural Development Plans and LEADER programmes, have played a significant role. The opportunities offered by Tuscany's regional *agriturismo* law have also strongly supported farm accommodation, giving specific status to farms where tourism activities do not account for more than half of the invoicing (similar farm specific rules are relevant in other countries, like Austria). This entitles them to a preferential tax treatment, a 4% rate compared with an average rate of 27% for other types of accommodation. It is important to underline that agritourismo provides an additional income, both through room and board sales and through direct-to-consumer sales of agro-food products (cheese, wine, olive oil, fruit products, vegetables, meat and poultry). Increasingly organic farms are involved in agri-tourism activities. All over Italy, 63% of agri-tourist units offer some kind of gastronomic service which explains the particular attraction of this type of tourism.

On the demand side, the growing popularity of countryside tourism has inspired the farm operators to engage in these activities. A great part of Siena's landscape is agricultural, highly aesthetic, with a variety of hills, plains and woods, and many ancient farmhouses. It is however important to mention that in order to provide an adequate range of

tourism services in a region, coordination and networking must be integrated into local and regional promotion networks. This includes also use of internet information and reservation facilities.

An other case on agri-tourism development in *Calabria* shows the situation of a region where this type of tourism has only achieved minor importance up to now (Privitera 2004). A sample carried out within farm households having applied for Community aid with regard to agro-tourist activities reveal similar trends as in other regions, and a wide range of services offered by these farm households. There are however considerable weaknesses in relation to make use of the good development potential. It is the regional strategy to improve the regional tourist offer by increasing the variety and quality of different types of tourism, including agri-tourism.

### **8.3.6 PRODER: Andalucia, Spain**

The PRODER scheme provides a good example of where a Member State has decided to use an established local delivery mechanism to implement various RDP measures in a flexible way, utilizing a bottom-up approach. The programme consists of a set of implementing measures for endogenous development of rural areas and is the main case of mainstreaming the LEADER method up to now.

PRODER (Programa Operativo de Desarrollo y Diversificación Económica de Zonas Rurales) is the Operational Programme for the Development and Diversification of Rural Areas was introduced as part of the 1994-1999 programming of Structural Funds for Objective 1 regions in Spain, as a horizontal programme run by the central Ministry of Agriculture. The idea was to replicate the LEADER approach, and extend it to more areas. For the 2000-2007 period, the programme was extended to non-Objective 1 regions, where each region has included a PRODER-type scheme in its regional programmes, sometimes under joint management with the Ministry of Agriculture. Many of the PRODER areas overlap with LEADER regions, but not all. The number of local development programmes increased from 101 PRODER1 programmes (1996-1999) to 162 PRODER2 programmes (2000-2007) in 12 regions of Spain. Overall public funding for the current PRODER programmes amounts to €828m, of which the greatest share is allocated for Andalucia (€212m).

In Andalucia (Objective 1), the equivalent scheme is called the Global Grant for Endogenous Development of Rural Areas. It takes the form of global grant under Article 27 of the Structural Funds Reg. 1260/99. The scheme operates throughout Andalucia, although budget is allocated preferentially to districts with significant economic, environmental and equal-opportunity problems (Dwyer *et al.*, 2002). Funding for the local

action groups comes from both EAGGF Guidance and ERDF. Actions eligible for funding from ERDF are:

- operational costs of the local groups
- support services for crafts, commerce and hostelry
- small industrial estates and fairs
- improvement of towns and village centres
- construction of cultural centres
- support for small businesses
- studies and advice on rural development

Actions eligible for funding from EAGGF are:

- actions related to farm diversification and/or in predominantly agricultural territories
- basic services and information provision to the population
- co-operation projects
- conservation of cultural heritage (buildings, villages)
- productive activities compatible with environmental conservation and/or aiming at the protection, restoration and valorisation of natural resources and landscapes
- development and improvement of infrastructure related to farm production (e.g. farm roads, livestock units, electricity supply)
- promotion, improvement and diversification of the rural economy, in the agricultural, craft and tourist sectors

The importance given to PRODER in regional programmes varies considerably. Thus Castilla y León, Andalucía and Asturias dedicate relatively significant budgets to the scheme while others, like Castilla-La Mancha allocate a relatively modest amount and exclude agricultural actions from the support.

In the case of Andalucía it is important to point out the special interest from the regional authorities to develop PRODER as a similar approach to the LEADER method. The learning process has been more successful than elsewhere, in the sense that PRODER2 is conceived in a different way than in the rest of the country, as a complement to LEADER+ measures. Andalucía is also applying another important innovation, the "homologated groups", which are LAGs officially established to undertake the implementation of a set of policies in their areas. "This is a clear example of the success of the territorial approach, which means more participation of the local actors in the design and implementation of different policies in rural areas. At this moment, PRODER2 and LEADER+ in Andalucía, with their "homologated" LAGS, are an interesting experiment which have to be followed in the near future, as a real projection of the LEADER method" (Esparcia and Noguera, 2004).

### **8.3.7 POMO and POMO+, Finland**

The Finish abbreviation 'POMO' stands for Rural Programme Based on Local Initiative. The first phase of POMO (1997-1999) was introduced as the national extension to the LEADER II programme. Like LEADER II evolved into LEADER+ for the new programming period (2000-2006), POMO became POMO+ respectively, although it was not originally envisaged that there would be a national follow-up.

Both POMO and POMO+ would have an integrated, multi-sectoral nature to finance a wide range of measures and activities as per the development plans of the respective LAGs. However, POMO did not allow funding for individual business enterprises while there is, in principle, no such limitation in POMO+. But most LAGs operate mainly through collective projects and indirect business development by building capacities and improving the operating environment. While there were differences in the implementation model between POMO and LEADER II, the new programmes are managed along the same lines: the Ministry of Agriculture and Forestry as the managing authority and the Rural Departments of the Employment and Economic Development Centres as paying authorities in relation to individual projects.

The evolution of POMO is viewed as a particular milestone within the LEADER mainstreaming process in Finland. With the introduction of the programme in 1997 an additional 26 LAGs were selected which corresponded to the effective demand for a wider intervention than LEADER II. This brought the number of LAGs in 1997-1999 up to 48. The second milestone was mainstreaming of LAGs into the Structural Funds and launch of POMO+ as a complementary national programme to LEADER+. POMO+ allowed funding for 7 LAGs bringing the total number of LAGs in the period 2000-2006 up to 58 which cover practically all rural Finland. The differences between the two programmes (e.g. lower funding level in POMO) have been harmonised along the lines of LEADER+ and there appears to be a fair deal of synergies between the programmes.

POMO has achieved its objectives to create or safeguard 800-850 jobs, contribute to the creation of 200-250 micro enterprises, and proved particularly effective in diversification (mainly rural tourism). The established network of committed actors at all levels of rural development work have constituted a major internal success factor for mainstreaming. It was primarily a question of communicative interaction between administration and the civil society to carry through the bottom-up approach of the LEADER method.

Although the success is highly related to context specific operationalisation two critical areas are highlighted for the Finish case: First, the most challenging aspect of the LEADER method is that LAGs

remain autonomous and empowered, second, despite well started networking there seems to be a lot of unrealised potential in transfer of good practices and innovation in both national and trans-national contexts. Hence, more attention should be drawn directly to upgrading learning processes which could be considered as one of the key features of the LEADER method.

## **8.4 Shifting Resources to Rural Development**

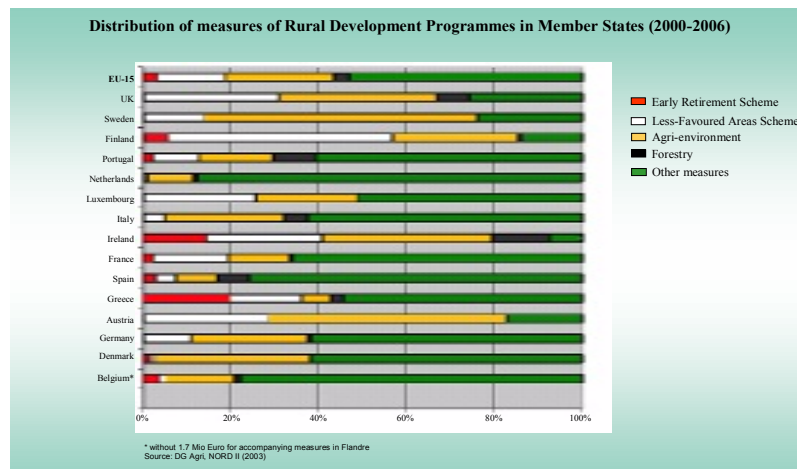
### **8.4.1 Good Practice Experiences of Pillar 2**

The shifting of policy priorities towards pillar 2 of CAP, as addressed above, is an on-going process with major differences between Member States and regions. The Rural Development Regulation has thus become an increasingly important component of the CAP. The differences between countries are due both to the resource base and the experiences with the development of respective measures and programmes. The regulation is therefore sometimes seen as a tool to promote environmental land management, whereas others focus more strongly on the modernisation of agriculture. It is the aim to build here on these experiences and to highlight aspects and cases which include a higher degree of integration and constitute an advanced stage of innovation in programme design. As the distribution of measures within the regulation is firmly based on past experiences with domestic and EU funding programmes it is important to take account of the framework of application of the regulation.

The planned expenditure on Pillar 2 has been analysed and presented in the study by Dwyer *et al.* (2002) indicating differences in the allocation of RDR spending between Member States, as shown in

Figure 8.1. Member States had to draw up RDP at the appropriate geographical level, which was broadly interpreted as either national or regional. The regional option was taken up by the UK, Italy, Spain, Germany and Belgium.

**Figure 8.1: Distribution of Measures of RDP in Member States 2000-06.**



Source: Dwyer *et al.* 2002, p.19.

The differences in the regional priorities of rural development measures are particularly articulated in Germany where the variation of allocation between measures in the German Länder shows similarities to the picture at EU level, with poorer Länder prioritising Art. 33 measures (notably village renewal schemes) while wealthier ones emphasise agri-environment and LFAs (Dwyer *et al.*, 2002, p.22).

A similar calculation on preliminary data for application of the Rural Development Regulation in the New Member States (2004-2006) reveals also variation in policy implementation. Moreover a slightly divergent priority pattern can be discerned.

It should be noted that these experiences are the basis for the consideration of the next generation of rural development programmes (2007-2013) which aims at an advanced step of integration, even though there is still only a very limited shift of resources towards Pillar 2 proposed (EC, 2004).

#### 8.4.2 Mainstreaming the LEADER Approach (Good Practice)

The LEADER Community Initiative is one of the four remaining EU CI for the period 2000-2006, but has a very limited budget (2,020 mio.), compared to overall Structural Funds and CAP. Nevertheless it is the programme which is particularly related to the concept of integrated rural development, and provides a multitude of good/bad examples of rural development under different contexts. Moreover this has a crucial impact on the political discourse and effects also on the discussion of regional development of peripheral areas. As such regions are very content to dispose of an instrument with a highly experimental

character where innovative approaches could be started, too. In particular:

- Beyond the economic sphere the programme is important for other spheres of rural life and policy, as the regional strategy development touches upon a much wider field of sectors than just the prime sectors usually addressed by Rural Development programmes.
- The development of a regional strategy is an important aim and achievement in itself. This can be used by the regions for further activities and spreads out to other sectors activities (see for example case study Spain, Annex).
- It provides a flexible programme structure which has to be adapted to the context of the rural regions, and has achieved interesting results for small scale regional development. Numerous case study descriptions (beyond those carried out under the ESPON programme) elaborate on the starting period, the difficulties and outcome of initiatives. Some of them also underline the requirements for the successful application and institutional prerequisites, including the following characteristics of action-centred networks: flat, flexible organisational structures involving teamwork and partnership; equality of relationships among relevant stakeholders; vision and value-driven leadership, and emphasis on participation and organisational learning.
- The core of the programme is the emphasis on the multi-sector approach which requires a high commitment by participants to overcome institutional and deeply-entrenched personal difficulties with regard to cooperative activities and new ways of organisation at the local level. This discussion has turned out to become very important for the discussion of "regional governances".
- During the LEADER period – as it is analysed in the Case of Northern Ireland – there is evidence of a increasing level of rural development know-how and an improved capacity of partnerships to deliver programmes for rural development. LAGs no longer see themselves mainly as provider of local funding on a project-to-project basis, which often resulted in a 'scatter-gun' approach to development. This change to a programme driven approach allowed LAGs to manage and target resources in a more effective manner rather than simply react to various project ideas (Scott 2004).
- The inclusion of social, cultural and environmental concerns is regarded nowadays as part of good practice in regional policy; part of it can be attributed to LEADER experiences and the concern for



harnessing natural and cultural assets in rural areas as a prime development potential for many rural areas.

- Participation is not everywhere satisfying. In particular, different groups of society are underrepresented and strategies are the expression of the discussion process and power relations of decisive stakeholders in the areas. An enlargement of the groups addressed and integrated in the process is one of the actual objectives of the current period (e.g. stronger participation of women, young people etc.) and would also increase the effectiveness of the approach.

The future integration of LEADER+ into the rural development programming (*mainstreaming*) as outlined in the Third Cohesion Report might have again severe implications on the administration and contents of the LEADER activities. The specific features of the Community initiative should be maintained (and elaborated) in order to use the potential. LEADER is very effective in creating new links between local actors and stakeholders (re)building trust across contemporary social divides and sectoral points of view. However, the cooperating and the development of a common strategic planning needs time and LEADER issues like multi-sectoral integration, networking and trans-national co-operation between rural areas were often too ambitious for the LAGs (trans-nation cooperation) or were achieved only by the more advanced groups. E.g. the successful implementation of multi-sectoral integration was rather an effect of certain preconditions and external influences than of LEADER activities, like a favourable administrative context; a thriving and diversified local economy; a viable, dynamic, representative mixed partnership and a strong strategic orientation in the local action plan (ÖIR, 2003, p. 26).

Within the mainstream programming there should be an opportunity for (newly) defined regions to get together, recall their endogenous potentials and explore new ways of development according to the respective situation in the rural area. Especially possibly new founded LAGs in the New Member States will need a space and time for experimenting authentic ways of development. A LEADER-type mainstream programme will require considerable resources for capacity building, negotiation and organisational development and thus, a period of reduced economic cost –effectiveness is to be taken into account. An increase in efficiency in programme implementation and especially in disbursement of funds is to be expected in later stages (ÖIR, 2004).

On the other hand, more experienced LAGs should be supported to maintain and improve their development structures. The focus could be to support their efforts in the direction of multi-sectoral integration, networking and trans-national co-operation between rural areas, all features which need already existing and functioning internal networks.

The report "Method for and Success of Mainstreaming Leader Innovations and Approach into Rural Development Programmes" (ÖIR, 2004) aimed exactly at analysing the issues if and how (far) individual LEADER features or the method as a whole are applied in the "classical" rural development measures. The overall conclusion was that the LEADER method is applicable to the whole range of rural development measures though incidence of LEADER type measures vary considerably between RD measures and Member States. There are positive outcomes in respect to (i) regional added value (including for example the development of soft factors like participation of different groups of actors or an efficient decentralized management and financing though this depends on the concerted interplay of authorities and institutions at various levels), (ii) production of synergies with other regional development measures particularly in Objective 1 areas, (iii) and feasibility of the different features of the LEADER method.

Among the 22 RDR measures, the most frequent mainstreaming has taken place within the scope of Article 33 of the Rural Development Regulation 1257/99: adaptation and development of rural areas. But in general strong mainstreaming includes farm investments (Art. 4 to 7), setting up of young farmers (Art. 8), and investments in marketing and processing (Art. 25 to 27). Less frequent, but successful mainstreaming is recorded from agri-environmental measures (Art. 22 to 24) and forestry (Art. 29 to 32).

There is also quite a considerable difference in degree of intensity of mainstreaming within the Member States as well. Strong and full mainstreaming appears on the one hand as a pan-territorial approach, by which the administration seeks to offer a LEADER type programme to all rural areas and actors (ES, IE) and/or on the other hand as a process of structural transformation (FI, IT). The case-studies of the PRODER programme in Spain and the POMO programme in Finland refer to the strong (resp. full) mainstreaming of LEADER. Weak and light mainstreaming can be observed either where the LEADER approach is used for niche programmes with specific measures (e.g. for remote areas, for rural tourism) or where the method is infiltrating on a broad basis, but slowly and incrementally (e.g. DE, DK, FR, SE).

Important difficulties of mainstreaming the LEADER approach, (which should be considered in the future concept of mainstreaming LEADER) arise particularly with regard to following areas:

- Problems related to programming rules and regulation. E.g. the EAGGF-Guarantee implementation rules limit the eligibility of non-agricultural activities; the annuality principle is not appropriate for project oriented funding.

- Political and institutional hindrance in Member States where in some cases decentralised management and financing through local groups is not backed up.
- Administrative barriers related to routines of a sectoral perspective and of large-scale payment operations
- Problems related to local social capital as local actors need time to build up the strategic and operational capacities necessary to design and implement local development strategies.

The report concludes that there is a strong case for mainstreaming the LEADER method or some of its features into all rural development measures. But especially with regard to a favourable governance context certain amendments should be considered and the introduction of three types of interventions is recommended (ÖIR, 2004, p. 91):

- “In programme design: removing the administrative, structural and capacity related barriers to mainstreaming the LEADER method at Community level and to take into account the vast differences between rural areas in the EU-25;
- in programme implementation: offering strong incentives for mainstreaming the LEADER method in national rural development programmes;
- in programme support: setting up a European networking device (to support trans-national networking).”

It seems that the discussions at the Salzburg Conference on Rural Development in November 2003 and the recommendations on mainstreaming the LEADER method were taken into account, at least partially, in the proposal of the Commission for the future rural development policy, adopted on 14<sup>th</sup> July 2004 (EC, 2004). It includes the activities previously financed under the LEADER initiative in the new rural development policy as a fourth implementation axis. The requirement to set up a LEADER element for the implementation of local development strategies of local action groups for each programme implies a particular concentration on these measures and increases the attention for spatial considerations of the rural development programmes. As a minimum of 7% of program funding is reserved for the LEADER axis the current level of LEADER activities may even be extended and will be applied to all rural regions across the EU-25. The proposed framework provides the basis that the LEADER model can be applied on a wider scale by those Member States wishing to do so and can be used for region specific strategies, while for the EU as a whole continuation and consolidation of the LEADER approach will be

safeguarded. This might allow Member States to address more directly spatial aspects of future rural development policy.

#### **8.4.3 Adoption of Rural Development Paradigm in New Member States**

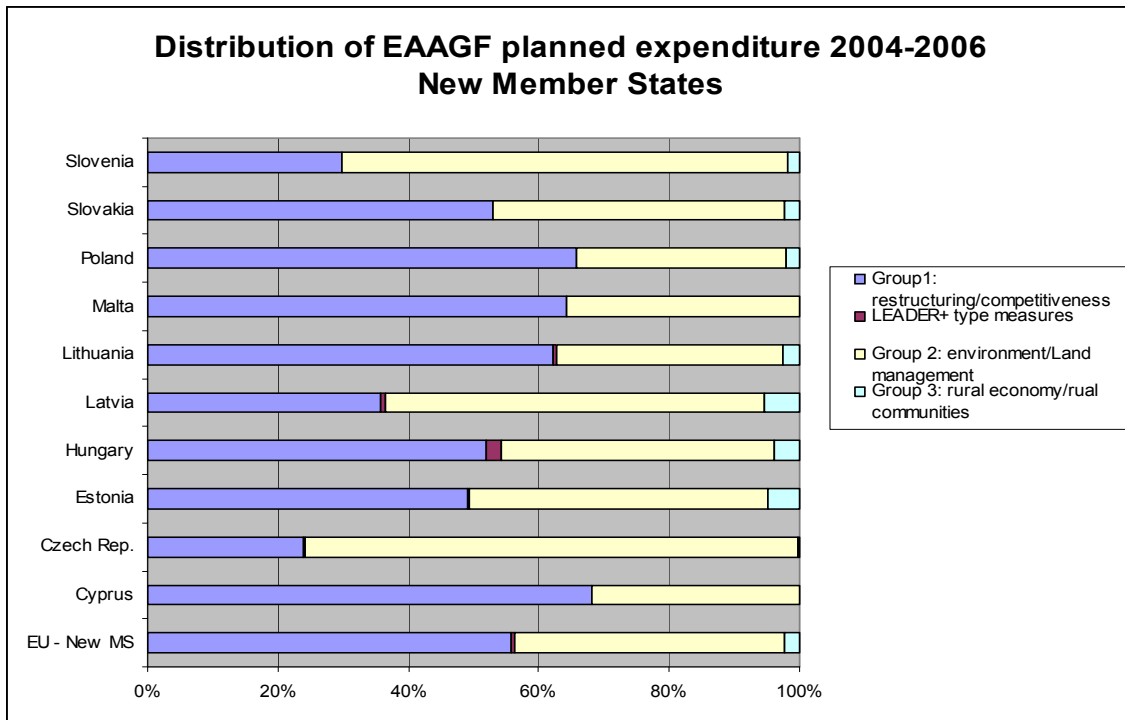
As for the EU-15, the development of the rural population and economy of a specific region in the new Member States is strongly linked with overall employment opportunities in these regions. Quite diverse situations and trends between regions occur in these countries, and there is rising concern about an increase in regional differential between agglomeration and marginal areas which is even more expressed than in the EU-15. With regard to cohesion objectives, this poses considerable challenges for application of EU policies.

Despite the awareness of the increasing problems of rural areas in these countries the main focus of national policies has been laid in the transformation period on economic growth indicators, the adaptation of structures, the improvement of administrative capacities and processes and compliance with EU standards. This has resulted in an on-going trend towards differentiation of growth regions and many rural, more peripheral regions lagging behind in regional development. Some recent regional classification studies have confirmed this experience and pointed to the increasing spatial divergence of new Member States (Baum *et al.*, 2004; ESPON project 2.2.2, Bika, 2004).

The need for a stronger commitment to the problems of rural regions was realised as a major factor for the preparation of the countries to EU accession. Preparation for membership of the EU required substantial changes to industrial and public infrastructure, administrative institutions and procedures, as well as training and capacity building programmes. To support these often costly and time consuming measures the EU has established PHARE, which has become a familiar source of funding. Two further funds (SAPARD and ISPA) were agreed at the European Council meeting in Berlin as part of the Agenda 2000 proposals. In addition a Special Preparatory Programme (SPP) in the framework of PHARE has been established, which among other things financed capacity building, training and technical assistance for the preparation of a national Rural Development Plan in each applicant country. This plan served as a basis for measures under the SAPARD programme. These programmes were meant to have a great influence on the spatial development policies of the new Member States. However delays in the negotiation process of the respective programmes and the focus on improving market structures resulted in a limited impact on rural economy. As no minimum requirements were set for the use of more innovative measures these were only applied to a rather restricted extent.

The current Rural Development Plans (2004-2006) provide the opportunity to implement the whole range of rural development measures. There is, however, a continued concentration on restructuring and competitiveness measures, with a rising concern for environment and land management measures. One has to acknowledge that for many countries the competitiveness of the agricultural sector is still the major concern, and rural development issues are gaining in importance only gradually. The rural economy measures (mainly for diversification activities, and renovation and development of villages) are of minor concern in these programmes, and LEADER+ type measures are only foreseen in some of the countries. Relevant activities are taken there were the preparation process for such long-term, bottom-up processes has started already some years ago (e.g. Hungary, Czech Republic).

**Figure 8.2: Distribution of Planned Pillar 2 Expenditure in NMS, 2004-06.**



The considerable potential of rural amenities in the new Member States has been addressed by research projects and country studies reflecting the concern to preserve the natural resource base and regional economy of rural regions. These include strategies for the preservation of high nature value farming systems and areas of high environmental value in great parts of the rural regions. From a long-term perspective it seems of particular relevance to address these features as a major potential of the rural regions. Spatial considerations will thus be of primary importance for the development of the next Rural Development Programmes for the period 2007-2013. These will have to refer to the actual Commission's proposals on the future rural development policy. As these set requirements for minimum shares of the national envelope to be spent on each of the three rural development axis (and also for the LEADER element) more balanced strategies will have to be found, and a further shift towards a stronger commitment for rural economy measures is needed.

### 8.5 Summary

There is marked trade-off between the main objectives of CAP and spatial policies. However, this relationship is not stable and has changed substantially over the recent decade. A more thorough inclusion of spatial aspects in considerations for agricultural policies has

led to the extension towards a Rural Development Policy encompassing both the preservation of agricultural land use through a competitive farm sector and the sustainable development of rural regions, which includes the whole rural economy far beyond the agricultural sector. The inter-linkage between the different sector activities, actors and institutions has been increasingly addressed in some of the innovative applications of rural development schemes. This chapter on good practice therefore tried to highlight some of the cases and experiences instructive for the future development of a balanced strategy for CAP and rural development.

It is widely accepted that this process requires a multi-dimensional approach, which reflects the particular regional (local) contextual situations. The instrument which has been discussed under these circumstances most intensively is the LEADER Community Initiative. Despite its limitations, it was therefore also argued to mainstream the LEADER approach into the rural development policy and adopt its basic principles as guiding elements for future rural development measures. Much of the criticism on the limited impact of rural development measures is about its marginal role in financial terms within the overall CAP (van der Ploeg, 2003). Mainstreaming of LEADER and further shifts of the EU framework of rural development measures, as proposed by the Commission in July 2004, might address more directly and effectively the diversification potential of farmers and rural regions in Europe.

It is, however, important to extend the spatial aspects to all CAP measures in order to achieve an analysis of the spatial relevance of the components and the whole package of measures. Examples presented here refer to the most widely used and relevant measures of Pillar 2: the less-favoured areas scheme and the agri-environmental measures. Moreover, horizontal and vertical integration of measures in an innovative way includes to a high degree the spatial aspects of farm management and related activities. The particular case of diversification is presented through the case of rural tourism which is by far the most popular non-agricultural activity taken up by farm households.

Good practice experience confirms the findings from earlier scoping studies on the future of rural development, the needs for policy changes and the role of institutions and mobilising local actors in this process (Baldock *et al.*, 2001; Dwyer *et al.*, 2002; Bennett, 2003; Buller, 2003; Saraceno, 2004). These can be summarised with following items:

- The analysis of different cases reveals that application of RDR comprises a wide set of different strategies. These partly reflect the specific regional contexts, partly are influenced by historic

experience and national priorities and understanding of rural development. In this regard they achieve to make use of the innovative element of the RDR to varying degrees, and although there are some good examples, the potential is generally not yet being fully realised.

- All measures are applied according to the regional context. This spatial feature is to be included in the formulation and implementation of the measures. From this it results that differentiation of measures which reflect the regional situation and/or the farm type and production difficulty are important for the acceptance and the effectiveness of programmes.
- Effective rural development policy implies an integral approach which takes account of its own broad set of objectives. The focus of such examples is less on agriculture, but makes use of the wide range of measures available.
- A limitation/and (gradual) decrease of Pillar 1 support might increase the effectiveness of Pillar 2 measures, in particular agri-environmental measures in more favourable areas. On the other hand, the impact of measures is not only a matter of support levels but is increasingly affected by regulations (c.f. good farming practice) which have a regionally and locally varying influence on farming practices.
- Pluriactivity as a main characteristic of farm households has to be taken into consideration when designing rural development programmes. Innovative ways to address the diversification potential and to respond to emerging societal demand on landscape development have to be improved.
- The concept of multifunctionality is increasingly used as a reference for policy reform. It draws heavily on the rural development paradigm and has clear spatial implications. In designing instruments to the varying needs of regional farming and rural development situations, the place-specific provision of public goods has to be carefully addressed.
- Institutional processes require a long-term involvement and the commitment of all relevant administrative levels. The inclusion of local actors in the bottom-up approach is particularly crucial to the success of rural development initiatives. This involves the need to prioritise facilitation, technical support and capacity building in the RDP to ensure the effective and sustainable use of RDR funds. This process takes time and regional management associations might play a key role in facilitating an advanced understanding of innovative approaches for rural development.
- It seems appropriate to anticipate the future policy approach (for the period 2007-2013) in the policies available to the new Member States. This is particularly important to avoid the development of funding structures heavily relying on 'phasing out' schemes. However, the current RDP only assigns a limited



role to the territorial function and low engagement in rural development measures. The discussion of the general philosophy of policy reform is not only of great influence to the policy shaping in the new Member States, but particularly relevant also for the EU-15 to make sure that they are committed to substantial change.

- The spatial distribution of funds underpins the different national and regional priorities for specific instruments. Although these differences partly reflect the regional situations and needs, in many cases they are due to historical allocations of funds to similar measures in the past and a limited range of experience. An exchange of good practice and experiences of RDP implementation between countries would be a key means to learn lessons and support the Member States to improve their use of the wide range of RDR measures. Such networking experiences might also help to redress the balance of funding between regions to more fully match the relative levels of economic, environmental and social needs across the varied territory of rural regions in Europe.

The current reform discussion is heavily led by the issue of shifting resources from Pillar 1 to Pillar 2. Although this implies a reduction of funds allocated to market support, the funds available for the second pillar largely are used for accompanying agricultural instruments and generally only available for farmers. Thus it seems hardly an integrated rural development approach. However, the examples provided by regional integrated programmes (like objective 5b programmes in the 1990s) and local action groups within the LEADER initiative include a host of interesting examples where a particular territorial perspective is taken and strengths and weaknesses of regions are assessed. The instruments of such a policy have a development rationale, proactive rather than compensatory. It is referred increasingly to the LEADER method when future rural development policy is discussed. The mainstreaming of its approach and key elements is therefore regarded as a decisive challenge to substantially change the contents of RDP and increase the spatial dimension. Nevertheless it will be important to take particular care to maintain the innovative character of LEADER-like measures and allow continuation of such activities in future programmes and also participation for non-farming actors.

Analyses of policy application have two more key aspects: The integration of environmental aspects into CAP and rural development policy and the integration of spatial aspects into CAP. As outlined above, there is a clear trade-off between the respective objectives of different policy fields. However, it has been made clear over the recent decade that a more integrative approach is required. This implies both the extension of the regulation framework to these issues as well as the

programming processes and requirements. Although some of the key principles have been adopted in EU regulations and a series of strategic documents issued there is still a lack in the implementation process to reflect these concerns. The existing application and good practice experience needs an in-depth evaluation which goes far beyond the actual programme evaluation practices, but extends to the more integrative impact analysis on environmental performance and regional outcome. Cross-national discussion and networking would incite to take these concerns more serious in policy formulation.

## **9 Conclusions and Policy Proposals**

### **9.1 Research Conclusions**

#### **9.1.1 Territorial Distribution and Impacts of the CAP/RDP**

In this study, empirical analysis has been conducted at NUTS3 level using data from a variety of sources, some directly recorded at this level but most requiring derivation from sample and/or higher-level values. The quality of the data is discussed further below, but it is believed that this is the best data available and that our results are robust and reliable, except where caveats are made explicit.

So far, the design and implementation of the CAP has been little touched by the territorial concepts of balanced competitiveness, economic and social cohesion, and polycentricity set out in the ESDP and in the Third Cohesion Report, although it has begun to address the goal of environmental sustainability. Neither have the Agenda 2000 or MTR reforms of the CAP, into Pillar 1 (comprised of market support, mostly non-budgetary, and direct payments), and Pillar 2 (agri-environmental and other 'rural development' expenditures), been based on cohesion or other territorial criteria. Even in the implementation of Pillar 2 through the rural development programmes of Member States almost all measures have been horizontal across the whole nation or region, except for areas designated for agri-environmental programmes. The CAP thus remains focused on its own historic objectives, set out in the Treaty of Rome, and its subsequent evolution has reflected other internal and external objectives and pressures.

Simple two-variable correlation analysis suggests that total CAP Pillar 1 support does not support territorial cohesion, with higher levels of CAP expenditure per hectare UAA being associated with more prosperous regions. Direct income payments appear to more strongly support cohesion objectives but are dwarfed by the market price support element of Pillar 1. This may not be surprising, since Pillar 1 has never been claimed to be a cohesion measure. The Rural Development Regulation is a cohesion measure, however, and while our evidence on Pillar 2 is more mixed, expenditure under the RDR does not appear to support cohesion objectives.

The level of total Pillar 1 support was found to be generally higher in more accessible regions, lower in more peripheral regions at all spatial scales (local, meso and EU-level). Multiple regression analysis shows that total Pillar 1 support is strongly associated with a region's average farm business size and land cover indicators. In contrast, Pillar 2 support was found to be higher in more peripheral regions of the

community. In this case, multiple regression analysis found higher levels of support tended towards regions with smaller farm sizes while land cover variables were found to be less important explanatory factors. For both types of support, after allowing for these other factors, no statistically significant relationships are observed with GDP per head in NUTS3 regions. In other words, the strong tendency for Pillar 1 support to go to richer regions of the EU-15 may be attributed to their larger farms, their location in the core of Europe, and their farm type.

From the numerical analysis presented in Chapter 5, then, it appears that the CAP has uneven territorial effects across the EU-15 which do not support cohesion objectives, particularly in terms of its Pillar 1. The "rural development" Pillar 2 may in some cases be more consistent with cohesion within countries, but runs counter to EU-wide cohesion in the way it is currently structured.

Our study considered in more detail these impacts both through a number of case studies of the use of measures in different countries and regions and through the CAPRI model of the impact of the MTR proposals. A case study of Irish agricultural and rural development illustrates the kinds of adaptations made by farming households. First, the territorial impacts of agricultural and rural development policies vary with the aims of such policies but are also differentiated according to the resource and structural characteristics of regional economies. Secondly, there is a longer-term, underlying process of agricultural restructuring onto which policies are layered. Policies may cushion the more deleterious impacts of this on farm households (eg. by supporting incomes), thus slowing the rate of structural change, or 'go with the flow' while facilitating desirable adjustments (eg. by promoting alternative forms of land use). Thirdly, policies may have inconsistent outcomes – as for example when farm price policies have territorial impacts that run counter to cohesion objectives. Finally, it is clear from the Irish case study that in the more commercial farming regions a comprehensive range of agricultural policies and/or agriculture-centred rural development policies will not provide a guarantee of rural demographic viability. In 'strong agricultural areas adjusting to restrictions in farm output' without a strong non-farm based economy, population trends were weaker even than those of marginal agricultural areas. There is a need for greater complementarity between agricultural policy measures and policies for broader regional development focused on the specific conditions of the different regions. In the New Member States too this is crucial.

Turning to agri-environment measures, these were found to contribute to prudent management of and protection of nature and cultural heritage through encouraging a reduction in inputs of inorganic

fertilisers, conservation of habitats, and preservation of the cultural landscape. Agri-environment schemes are particularly suited to the encouragement of appropriate land management. The provision of support for organic production, given a high priority in several countries, has the potential to contribute to balanced competitiveness through high quality food production targeted at niche markets. Agri-environment programmes can also make an important indirect contribution to economic and social cohesion through the provision of income support in marginal areas, thus contributing to the retention of rural population.

Even though these measures are usually horizontal, especially in respect of organic production and training, such programmes have been largely identified with environmentally sensitive and extensive farming areas, with the notable exception of Austria where the aim is the 'ecologicalisation' of all agricultural activity. It appears that in lowland areas of more intensive farming, regulation through cross-compliance is more effective than agri-environmental measures. Incentives are generally not adequate to encourage participation among more intensive and commercially-oriented farmers whilst eligibility criteria are also a barrier to participation. Moreover, the effectiveness of the programme has also been compromised by poor targeting and the continuation of production-linked support policies associated with environmental problems (i.e. support for intensive farming with potentially negative environmental impacts). Finally, and as noted above, agri-environmental measures are used more in the more prosperous regions of northern and western Europe.

A second measure considered was early retirement schemes (ERS), which have been used to achieve both social and structural objectives. Their design (and uptake) has varied by country and depends largely on national objectives. It was concluded that they have been more successful in ensuring the continuation of family farming and population stabilisation than enhancing competitiveness and structural adjustment. However, in the countries with the highest rates of participation (France, Greece and Ireland), the structural effect was little different from that which would have occurred anyway, albeit over a slightly longer time scale. These time gains offered by the ERS are important only in relation to the depopulation problems and the demographic scarcity of farm successors prevailing in LFAs. Within France, Ireland, Norway, Finland and Spain, a distinct spatial pattern of adoption of the ERS exists: the highest levels of adoption were reported in areas of least need (i.e. prosperous farming regions) and where there are higher numbers of young farmers. Population density emerges as an indicator of the regional propensity to early retirement. On this basis, early retirement schemes did not appear to offer benefits either in terms of balanced competitiveness, territorial cohesion or

sustainable development, except in a very few Less Favoured Areas (LFAs).

LFA compensatory payments were the next measure considered. The spatial differences of European agriculture are reflected in the application of this scheme. In contrast to what one would expect from a 'compensation' measure the application of the scheme is largely correlated to the degree of farm net value added, i.e. higher CAs are applied in more prosperous countries, and in "poorer" countries only a low level of CAs is achieved. The lower commitment of southern Member States is partly due to the prevalence of arable land and permanent cropping in the LFAs of the South (whereas the scheme is largely oriented towards livestock farming) and the focus on modernisation schemes and the improvement of processing and marketing structures (TIR, Map 4.8,p.94). A major reason for this spatial distribution of funds is that the reference level is set at the national level, and not at the European level, such that differences between Member States remain unchanged.

The steady extension of the LFA area since its initiation in the 1970s reflects the political process of defining the border of LFAs, and gives rise to further discussion on the criteria of delimitation and internal differentiation. The review of the intermediate zones proposed by the Commission in July 2004 will address this issue. As the extension has been partly accompanied by an increase of overall grants, at least in some countries, the support level per unit did not fall. The recent changes in the LFA scheme (to an area basis) did not only have an impact on farm management itself but also on farm incomes. In several countries the changes were cushioned by an increase of CA funds and/or a transition period. Finally, LFA payments often underpin high nature value (HNV) farming systems. The existence of HNV farming systems in these areas points to the beneficial role of LFA payments for nature conservation and biodiversity, especially now that these payments are decoupled from livestock numbers. However, these farming patterns are highly threatened by impending marginalisation processes which are particularly relevant for peripheral situations, including regions of the new Member States.

The final measure considered in these case studies was Article 33 and LEADER-type measures. The evaluation studies (of LEADER II and the mid term evaluation of LEADER+) suggest that such initiatives have a considerable impact on the development of rural regions, although their *budget* is small compared to mainstream programme instruments.

The ex-post evaluation of LEADER II found the programme both efficient and effective. It proved to be *adaptable* to the different socio-economic and governance *contexts* and applicable to the small scale,

area based activities of rural areas. It could therefore also reach lagging regions and vulnerable rural territories. LEADER activities induced and conveyed responsibility to local partnerships, linking public and private institutions as well as different interests of various local actors to a common strategy. A profound change from a passive to an active attitude could be achieved among many local actors. In countries with a long-standing tradition of pluriactivity, agricultural diversification served as a basic pattern for multi-sectorial strategies, often in combination with rural tourism. A good example for the multi-sectorial approach based on agricultural products and rural tourism is analysed in the Austrian LEADER case study. In some other countries, LEADER projects focused mainly on environmental measures trying to protect and further develop existing natural capital.

LEADER is not an instrument to change local economic structures or revalorise the local economy in a direct way, but rather an instrument to stimulate processes in the local economy so leading to indirect but enduring benefits. Many core projects do preliminary work in activating rural actors, and this is then a stimulus to further economic activities. The potential of LEADER lies especially in the improvement of intangible factors, in raising awareness, in strengthening strategy and cooperation within the region. This often builds the basis for the provision of better services and more competitive products in the longer term.

Following the case studies of these specific Pillar 2 measures, the impacts of the MTR proposals were analysed using output from the CAPRI modelling system developed at the University of Bonn. The modelling system involves physical consistency balances, economic accounting, considerable regional specification (e.g. set-aside rates, direct payment rates, etc.; for non-EU regions, OECD PSE/CSE data are used), and standard micro-economic assumptions. Given the objectives of our study, analysis was restricted to considering the estimated impact of MTR on farm incomes in 2009 relative to their level in the absence of reform. The principal conclusions of this analysis are that farm incomes in the EU-15 (including CAP premiums) are expected to be only marginally affected by the MTR proposals, with changes of more than 5% apparent only in a small number of NUTS3 regions in France (mainly in the south) and in Austria (both show falling incomes) and in some or all of Northern Ireland, Belgium, northern Italy, Denmark and Sweden (all show rising incomes). Analysis found no statistically significant relationship between MTR impacts and cohesion indicators (GDP per head, unemployment rate and population change). Importantly, this suggests that the latest reforms of the CAP will do nothing to remove the existing inconsistencies between the CAP and cohesion policy unless they are accompanied by specific national priorities aimed at regional specific programme implementation.

### 9.1.2 Good Practice in Rural Development

Rural development is a broad concept covering many different perspectives and priorities. Given the vulnerable and often less successful economic performance of rural areas in comparison to urban areas, economic development and viability are core issues for the future. It is now generally understood that a purely sectoral approach is less successful in enhancing and stabilizing a regions performance, but despite this the notion that rural development goals widely overlap with agricultural policy is still characteristic of the CAP. An integrated, territorial approach, sensitive to the diversity of rural circumstances, is needed to ensure regionally balanced development and territorial cohesion.

While tangible factors such as natural and human resources, investment, infrastructure and economic structure have traditionally been seen as the main determinants of differential economic performance, more recent research has highlighted the important role of 'less tangible' or 'soft' factors, including various kinds of social, cultural, institutional, environmental and local knowledge which constitute the basic capital for regional development. Social capital, especially, has been identified as crucial (Putnam, 1993). A recent EU project on the Dynamics of Rural Areas (DORA) (Bryden and Hart, 2004) has suggested that it is the relationship between the tangible and less tangible resources, and how these interact in the local context, which conditions opportunities and constraints for local development. "It is not so much the tangible resources themselves that matter for economic performance, but the way the local people are able to exploit those available to them" (Bryden and Hart, 2001, 45). Thus 'less tangible' factors determine the efficiency and effectiveness with which tangible resources are used and are most important in making the difference (Pezzini, 2003: 5).

A conclusion emerging consistently from many recent studies, then, is that *social* processes are fundamental to rural development. In this sense, social capital has a vital role in rural development, along with appropriate structures of governance. The role of public policy and development agencies is seen increasingly as to trust, foster and enable local action. This has a number of implications for policy.

The EU RESTRIM project (Arnason *et al.*, 2004) concluded that public policy should therefore support the social processes which are as essential to rural development as 'hard' economic intervention (in the same sense that software is as necessary as hardware to computing). In practice this means supporting *rural community development* – understood as an approach to working with and to building the capacity of individuals and groups within their communities. This approach seeks to strengthen communities through enhancing people's confidence,



knowledge and skills, and their ability to work together. In the EU, this type of approach has been piloted successfully under the community initiative, LEADER, as noted above, and the Commission has proposed that this is continued and encouraged after 2007 within the single rural development fund.

A number of studies have also suggested that supporting the development of *vertical and horizontal networks* in community action can transcend the dichotomy of endogenous/exogenous development ('bottom-up/top-down'). Issues will arise of where power and control lie in these networks, and of whose problems they are addressing and who benefits, and public bodies and development agencies should be alert to these aspects when offering support and when working with voluntary and community bodies. *Training* of local and regional officials, and others, in the social processes surrounding local development is crucial.

Thirdly, in offering grants and other support, development agencies should prioritise *collective action which is both inclusive and reflexive*, and should support new arenas for interaction. Good networks are inclusive, facilitating collective learning, allowing sharing of success and generating wider social acceptance. In this context, it is notable that most expenditure under the EU Rural Development Regulation has hitherto been targeted largely at individuals rather than collective activities. The RESTRIM research noted the scope for the RDR to be more effective through promoting collective action.

All recent studies have concurred that appropriate *structures of governance* are also essential to facilitate local leadership and innovation. Rural areas and people require strong support from national government and the EU, as well as from regional agencies and the private sector, and it is essential that these set a coherent framework within which participative local development initiatives can flourish. Within such a framework, rural development can be pursued which is locally embedded, socially inclusive and linking social scales. Successful development of this type frees rural areas from stereotypes of backwardness, remoteness and parochialism, and yet allows them to retain control of distinctive and valued cultural and environmental features, with long-term beneficial results. Thus, both the DORA and RESTRIM projects emphasised the importance of effective and open governance, with a positive attitude to small local enterprises and entrepreneurs, and local public institutions with sufficient autonomy to adapt policies and specific measures to assist with the collective needs of local enterprises. Furthermore, open and inclusive 'soft' networks are positively related to the mobilisation of entrepreneurial capacity and local initiative.

In the current discussion of rural development, the cultivation of *rural amenities* is often seen as a means of generating new economic opportunities. Rural amenities are strongly associated with specific territorial attributes. Their value stems from the unique features of a given region which cannot be (easily) replaced or exchanged (less-mobile). Thus, it gives the same region a chance to enhance its competitiveness through 'cultivating' the place-based social, cultural, and environmental assets. Ideally, this high valorisation from outside the region contributes to strengthening the high value placed on these amenities by local people, which symbolises their distinctive cultural identity. The successful cultivation of rural amenities needs both the regional identification of natural and cultural amenities and favourable structures of decision-making processes in the region. This includes for example local institutions with capacity to recognise the market value and who are able to organize and co-ordinate supply and promotion of the specific local amenity. The main conclusion from the RESTRIM project, however, is that this is a highly tensioned process that cannot be simply controlled by key development actors: it is important to reflect a plurality of cultural identities and to link this to cultures of everyday life through a broad participative process. Newly constructed regional identities will only succeed in mobilising common efforts towards shared objectives where these supplement and build on multiple local identities.

Some examples of either innovative approaches or representative use of the RDR framework are considered in Chapter 8. Innovations in RDP across Europe have occurred both at the level of programme design and resourcing, and at the level of individual projects and initiatives. Many examples demonstrated flexibility and tailoring of measures to meet local circumstances and potential. These included:

- Differentiation of compensatory allowances for LFA in Austria
- Ireland Rural Environment Protection Scheme (REPS)
- CTE (contrat territorial d'exploitation), France
- "Cheese Route Bregenzerwald", LEADER, Austria
- Rural Tourism in Italy
- PRODER Andalucia, Spain
- POMO and POMO+, Finland

The achievement of ESDP objectives relating to prudent management of resources depends on effective integration of environmental measures within the CAP. Possible mechanisms for integration include cross-compliance and the verifiable environmental standards required for certain measures under Pillar 2 as well as a significant expansion of Pillar 2 measures. In order to raise effectiveness, Member States should define measures with specific environmental objectives rather than focussing on agricultural practices. The potential benefits of an

integrated approach to EU structural and regional policy instruments are also supported by the conclusions from the Schramek *et al.* (1999) report which recommended improved integration of existing structural and regional policy and instruments such as the LFA scheme and LEADER with agri-environmental policy.

In terms of LFAs, Member States have developed nationally shaped instruments which are particularly adapted to their specific situations and priorities. We can discern, therefore, a great variety in the application of this instrument across the EU. Only in some countries has a detailed differentiation of production difficulties within the areas been implemented (e.g. Austria). Elsewhere, the level of support fails to reflect production difficulties. As a result the measure is criticised, in particular with regard to under-/over compensation, local/regional equity, and lack of international consistency of support levels/income levels. The instrument should address more directly these objectives by differentiating payments according to, and including criteria for the measurement of, production difficulties. Administration costs of such systems are less high than might be expected since new technologies (e.g. aerial photogrammetry and remote sensing, GIS applications) allow for a highly advanced (automatically updated) control framework which may be used in conjunction with requirements for other CAP payments. More difficult policy choices have to be made as regards social as well as environmental questions, e.g. the desirability of maintaining traditional or at least local farm management (instead of incomers or "remote" management), and the "problems" of dealing with micro holdings maintained privately for seasonal and/or recreational use.

Finally, the LEADER Community Initiative is one of the four remaining EU CIs for the period 2000-2006, but has a very limited budget (€2.02m), compared to the overall Structural Funds and CAP budgets. Nevertheless it is the programme which is most closely related to the concept of integrated rural development, and provides a multitude of good/bad examples of rural development under different contexts. Moreover this pilot programme has had a crucial impact on the political discourse and on the discussion of regional development in peripheral areas. Beyond the economic sphere the programme is important for other spheres of rural life and policy, due to its multi-sectoral and integrative character.

LEADER provides a flexible programme structure which has to be adapted to the context of the rural regions, and has achieved interesting results for small scale regional development. Numerous case studies (beyond those carried out under the ESPON programme) elaborate on the starting period, the difficulties and outcome of initiatives. Some of them also underline the requirements for the

successful application and institutional prerequisites, including the following characteristics of action-centred networks: flat, flexible organisational structures involving teamwork and partnership; equality of relationships among relevant stakeholders; vision and value-driven leadership, and emphasis on participation and organisational learning. The core of the programme is the emphasis on the multi-sector approach which requires a high commitment by participants to overcome institutional and deeply-entrenched personal difficulties with regard to cooperative activities and new ways of organisation at the local level. This discussion has turned out to become very important for the discussion of regional governances.

During the LEADER programme period evidence has emerged of an increasing level of rural development 'know-how' and an improved capacity of partnerships to deliver programmes for rural development. LAGs no longer see themselves mainly as a provider of local funding on a project-to-project basis, which often resulted in a 'scatter-gun' approach to development. This change to a programme-driven approach has enabled LAGs to manage and target resources in a more effective and pro-active manner. Nevertheless, in some respects participation remains unsatisfactory. In particular, different groups of society are underrepresented and LAG strategies reflect local power relations in the LEADER areas. An enlargement of the groups addressed and integrated in the process is one of the objectives of the LEADER+ (e.g. stronger participation of women, young people etc.) and would further enhance the effectiveness of this approach.

### **9.1.3 Synthesis**

The principal conclusion from this ESPON project is that in aggregate the CAP works against the ESDP objectives of balanced territorial development, and does not support the objectives of economic and social cohesion. Moreover, in terms of polycentricity at the EU level, Pillar 1 of the CAP appears to favour core areas more than it assists the periphery of Europe, and at a local level CAP favours the more accessible areas. In recent years the CAP has undergone a series of reforms. Some of these have begun to ameliorate these conflicts of objectives. For example, direct income payments tend to be distributed in a manner more consistent with cohesion than market price support. Similarly, higher levels of Pillar 2 payments are associated with more peripheral regions of the EU than is the case with Pillar 1 support. Nevertheless, there is considerable scope for both Member States and the Commission to make the CAP more consistent with the objectives of the ESDP. It is encouraging that senior officials of DG Agriculture have placed importance on "the difficult question of how we can centre our policy more around the territorial instead of the sectoral, ie. agricultural, dimension of rural development" (Ahner,

2004, 12). This is reflected to some limited extent in the announcement that 7% of the RDR will be devoted to LEADER-type measures from 2007.

The scientific evidence suggests that there is scope to amend Pillar 2 to favour cohesion, and that this holds out the best potential for amending agricultural and rural development policy and policy instruments to support territorial cohesion and the ESDP. We concur with the conclusions of Dwyer *et al.* (2002) that "the RDR is an innovative tool with considerable potential to support sustainable rural development throughout Europe, particularly in promoting a more integrated and multifunctional approach to rural land management, environmental integration and economic and community development," but that this potential is not currently being realised. "Planning and implementation of the RDR and SAPARD do not reflect the ambitions of the Commission's objectives" for the Second Pillar, because of: "lack of time for planning; complex administrative procedures; inadequate funding; and limited incentives for countries to re-think and re-design existing policies to reflect fully the scope of this new instrument and its requirements." Moreover, the Second Pillar is still focused mainly on agricultural producers rather than on territorial rural development, and this will remain so under the revised RDR for 2007-2013.

## **9.2 Policy Proposals**

### **9.2.1 Introduction**

It may be helpful to begin by summarising the main conclusions of the Salzburg Conference organised by the European Commission in November 2003. There was consensus around three broad objectives (see <http://europe.eu.int/comm/agriculture/ecrd2003/>):

4. *a competitive farming sector*: Sustainable economic growth in farming must come increasingly through diversification, innovation and value added products;
5. *managing the land for future generations*: managing the farmed environment and forests should serve to preserve and enhance the natural landscape and Europe's cultural heritage; and
6. *a living countryside*: investment in the broader rural economy is vital to increase the attractiveness of rural areas, promote sustainable growth and create new employment opportunities through diversification.

It should be noted that the first of these objectives is inherently non-spatial, except insofar as the agri-food sector (rather than policymakers, who can only reinforce commercial trends) can find and add value to local and regional farm output. There is no obvious reason why all EU regions should be able to operate effectively in an

increasingly competitive and widespread market, and it should not be expected that agriculture, even if diversified or innovated, can in future support previous levels of farm occupiers and incomes. In regions which “lag behind” despite best efforts, policy attention directed at territorial cohesion must shift even further towards alternative sources of economic activity and income. Objectives 2 and 3 above are more capable of direct territorial interpretation in policy terms, but, as demonstrated in a previous section, experience shows that national and other factors are unlikely to promote EU-wide cohesion effectively unless careful account is taken of relative territorial capacities and resources.

The Salzburg conference also concluded that rural development policy should apply in all rural areas of the enlarged EU; and that rural development policy must serve the needs of broader society in rural areas and contribute to cohesion. In other words, rural development should be more than just a sectoral approach linked to agriculture. It clearly has an important territorial dimension.

The EU Commission has taken these conclusions, along with a number of evaluation studies, as a main point of departure in reviewing its rural development policy. In particular, it has proposed grouping the different measures in the RDR around the three core priorities suggested by the Salzburg conference, along with a fourth axis of LEADER-type measures. Such an approach envisages substantial flexibility for member states and regions in the implementation of these measures, while at the same time promoting EU strategy by prescribing a minimum proportion of the budget to be devoted to each heading. Thus, at least 15% of each country’s national envelope has to be spent on Axis 1 (Improving competitiveness of farming and forestry), at least 25% on Axis 2 (Environment and land management); and at least 15% on Axis 3 (Improving quality of life and diversification), and in addition at least 7% on a new Axis 4 (LEADER). Moreover, the RDR budget would be increased substantially to €13bn per annum (EU Commission 2004).

Earlier a senior official had suggested that as much as 30% might be earmarked for mainstreaming LEADER (Courades, 2004), with permanent support structures for capacity-building, networking and vertical and horizontal coordination. On the basis of our scientific conclusions, we would also recommend larger spending on such a LEADER-type approach if territorial cohesion is to be pursued. Nevertheless, the more gradualist proposals will allow the LEADER model to be applied on a wider scale by the Member States who wish to do so, “while for the EU as a whole continuation and consolidation of the LEADER approach will be safeguarded” (EU Commission, 2004). The Commission argues that its proposals “will ensure better focus on EU

priorities, and will improve complementarity with other EU policies (e.g. cohesion and environment).” Our findings support this claim.

### **9.2.2 Specific Proposals**

*We would propose, first of all, that the Pillar 2 budget should be increased progressively, as anticipated in the Agenda 2000 and MTR agreements and in the Commission’s proposals for the RDR 2007-13. This might be achieved either through continuing increases in the rate of compulsory modulation (which would attract/require match funding) or preferably through the more substantial realignment of EAGGF towards Pillar 2. This is desirable because the RDR incorporates cohesion objectives, in contrast to Pillar 1. This proposal follows directly from our conclusion that Pillar 2 offers the best potential for amending agricultural and rural development policy to support territorial cohesion and other ESDP objectives. The proposals for the RDR 2007-13 represent a significant step in this direction, and the more quickly support is transferred from Pillar 1 to Pillar 2 the more consistent the CAP will become with cohesion objectives. Moreover, as the Buckwell Report argued, the expenditure of funds under the CAP will be more defensible if they are directed towards ‘public goods’ such as the cultural and natural heritage, environmental benefits and sustainable rural communities.*

*We recommend that the new Rural Development Regulation 2007-2013 should contain a broader range of permitted measures under the four proposed axes, building on the lessons from LEADER and Objective 5b by including more measures which address sustainable rural development beyond the agriculture sector and which have a territorial dimension. Encouragement should be given to innovation. The revised RDR 2007-13 strikes a balance between pursuing an overall EU strategy for rural development and greater subsidiarity, allowing RDP to be tailored more appropriately to the diversity of territorial needs across rural Europe, but most measures are still to be sectoral rather than territorial. More measures should be open to non-farmers and build on the lessons of LEADER, Objective 5b and DORA, as implied by ‘Mainstreaming LEADER’ and the Salzburg conclusions.*

*It is important these territorial measures include supporting rural community development – understood as an approach to working with and to building the capacity of individuals and groups within their communities. To this end, in offering grants and other support, local development agencies should prioritise collective action which is both inclusive and reflexive, and should support new arenas for interaction and collective learning.*

*We recommend that the Commission keeps under review the rates of co-financing in the convergence countries, as there is evidence that the difficulties of match funding may have led both to lower levels of RDR expenditure and to a distorted composition of RDR spending in the poorer countries and regions. The Commission's proposals to allow significantly higher rates of EU co-financing in the convergence countries from 2007-13 are welcomed.*

*We also point out that consistency with cohesion objectives would be improved through allocation of the RDR budget to Member States according to criteria of relative needs for rural development and environmental management, as proposed by the Commission<sup>40</sup> in 2002. A recent paper by Mantino (2003) has illustrated a variety of ways in which this might be achieved at a regional level, using weighted criteria suggested by the Commission in the first draft of the MTR proposal (UAA, agricultural employment, GDP/head) and already used for SAPARD allocations in the then Candidate Countries, as well as various environmental criteria (Natura 2000 sites, protected areas, organically farmed area).*

Turning to Pillar 1, it is likely that there will be further revisions of the Market Price Support arrangements as a result of the currently ongoing WTO negotiations. The 31<sup>st</sup> July 2004 agreement covers reductions in export subsidies, border protection and trade-distorting domestic support to agriculture, and, once actual modalities (formulas) and numerical values have been agreed in future talks, should lead to further lowering of EU market prices, especially in products (e.g. sugar, beef) which have retained high border protection. *The more that WTO negotiations result in reductions in Pillar 1 Market Price Support, through reductions in border protection and a convergence of EU prices with world prices, the greater the resulting consistency of the CAP with cohesion objectives.* As our scientific results have shown conclusively, the Market Price Support element dominates the CAP and benefits overwhelmingly the richer, core regions at the expense of the poorer, declining and more peripheral parts of the EU. The gradual reduction of this element of CAP support is fundamental to any reorientation of the CAP towards cohesion objectives.

*In relation to direct Single Farm Payments, it is suggested that the Commission explore models through which these might be modulated more progressively in richer regions of the EU, for example through relating rates of modulation to farm business size. Voluntary modulation could previously be applied in this way (as was done briefly in France) with a positive territorial impact, and this would be worthy of further investigation.*

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<sup>40</sup> EU Commission (2002) Mid-Term Review of the CAP, Brussels, COM (2002) 394 Final, page 23.



This approach will require greater harmonisation with regional policy, and will also require attention to be paid to appropriate institutional structures for multi-level governance (see below).

### **9.3 Institutional Proposals**

The ESDP challenges us to move towards a holistic and integrated approach to both the understanding and the implementation of sustainable development. The need for such an approach appears to be greatest in the poorest regions of the Community, eligible for Objective 1, where a "very high degree of sectorialisation" prevails (Robert *et al.*, 2001), but is also required elsewhere. Local development strategies, as proposed by the Commission in Axes 3 and 4 of RDR 2007-13, offer a means of integrating the approach to policy delivery and combining various instruments and funding streams for maximum effectiveness. Such strategies should seek horizontally integrated solutions combining actions in different sectors (economic, social, environmental). It is also imperative, however, that they should achieve vertical integration between local, regional, national and international funding and actors

Those operating at EU, national or regional level must play an important role in setting a coherent framework within which local development initiatives can best add value to top down approaches. In particular, they should secure co-ordination at the highest levels where mainstream policies and strategies are formulated, so that top-down policies can effectively be integrated at local level by local development agencies and so that vertical integration can be achieved between local, regional and national policies. In addition, there must be a suitable mechanism for effective co-ordination of local development programmes, to avoid duplication or conflict. It will also be helpful to encourage a horizontal learning process between regions and between local actors in different territories.

The issue of appropriate institutional structures of multi-level governance is therefore of considerable importance, and we offer the following recommendations:

- The integrated development of land use, linkage to other local sectors and the creative development of region-specific programmes (as outlined in Chapter 8) are necessary to enhance the cohesion aspects of the CAP. Such an approach would require stronger regional programming for specific rural development measures, and the opening of 'Rural Development Programmes' to all the rural population, rather than only or mainly to farmers.
- We echo the conclusions and recommendations of Robert *et al.* (2001) who argued for institutional readjustments at Community,

national and regional levels to allow the establishment of a correct balance between the various administrative levels associated with the sectoral and territorial policies affecting rural areas; and for greater flexibility of operational programmes and Community Initiatives, and even certain aspects of the CAP, to take account of the differentiated countryside; input into strategic objectives and visioning from local communities; and partnership arrangements at the operational level which provide the mechanisms for integration.

- Institutional processes require a long-term involvement and the commitment of all relevant administrative levels and Directorates.
- The inclusion of local actors in a bottom-up approach is particularly crucial to the success of rural development initiatives. This involves the need to prioritise facilitation, technical support and capacity building in the RDP to ensure the effective and sustainable use of RDR funds. Again, this process takes time and regional management associations might play a key role in facilitating an advanced understanding of innovative approaches for rural development.
- An exchange of good practice and experiences of RDP implementation between countries would be a key means to learn lessons and support the New Member States in their use of the wide range of RDR measures. Such networking experiences might also help to redress the balance of funding between regions to more fully reflect levels of economic, environmental and social needs across the varied territory of rural regions in Europe.

These suggestions regarding institutional issues are made in most studies and command a broad support in the literature. A fundamental question then is why so little progress has been made and what might be done to promote change. Our final recommendation, then, is that both the Commission and Member States start reviews of their institutional arrangements for rural development and agriculture, encompassing broad consultation and debate, and leading to firm proposals.

## **10 Further Data Requirements and Research**

### **10.1 Further Data Requirements**

#### **10.1.1 The Inadequacy of Current Data Availability**

The availability of detailed territorial data on agriculture across Europe is surprisingly poor, given the huge extent of agricultural data collection and the bureaucratic burden on farmers. Very little data relating to agriculture are available at NUTS3 level from Eurostat, DG Regio or DG Agriculture, and where they do exist up to 91% of data are missing. DG Agriculture reported that they have no information on CAP expenditure below national level other than Farm Accountancy Data Network sample data, which shows support received rather than expenditure.

We have therefore encountered persistent difficulties in capturing territorial specific information on CAP performance in general, and on separation of different CAP instruments, despite the huge routine surveillance of farmers. It is especially surprising that DG Agriculture apparently has no systematic information on the regional pattern of CAP expenditure. The only indicator from the REGIO dataset widely available at NUTS3 level relating to agriculture is employment in agriculture, forestry and fishing (derived from the Regional Accounts), and missing data is a problem for this and many other variables. Similarly the FADN dataset only provides data at NUTS2 or NUTS1 level, and sometimes in non-standard areas. We have made the best of the available data, using reliable national and OECD data to supplement EU sources and to derive robust NUTS3 estimates from sample and/or higher-level values. Nevertheless, data should be provided to the Commission and published at NUTS3 or even NUTS5 level.

*One conclusion is that information on CAP expenditure and implementation at regional level is poorly developed, and support to overcome this information gap is limited. As the territorial dimension becomes integrated into rural policy, it will be very important to support policy-making in future through improving the database so as to enable Europe-wide territorial analysis. This will require administration of the CAP instruments to take into account the regional and territorial dimension.*

At the same time the lack of useful regional information also reveals a lack of understanding of, or commitment to, the territorial relevance of the CAP amongst officials. Instead, it appears that most tend to think predominantly or only of linkages as upstream and downstream (i.e. within the farm-supply and food chains), rather than as existing in

space. A cultural change amongst officials (reinforced by revised policy objectives and criteria) is needed if they are to address the territorial dimension of agricultural and rural development policy in future.

### **10.1.2 Specific data deficiencies for EU27.**

Specific data requirements to permit future monitoring and analysis include:

- CAP expenditure by policy measure at NUTS3 level;
- Outputs of principal commodities, annually, at NUTS3 level;
- CORINE land cover change estimates at NUTS3 level;
- Farm numbers, farm workforce, and subsidy receipts at NUTS3 level;
- Level and composition of farm household incomes at NUTS3 level;
- Proportion of each NUTS3 area designated under environmental legislation;
- Proportion of each NUTS3 area designated under Structural Funds and LFA;
- Proportion of each NUTS3 area covered by LEADER programmes.

Additionally, much basic data available for the EU-15 is lacking for the NMS (e.g. population change for NMS at NUTS3 level).

In Section 3.3, the absence of a number of important indicators was noted. In particular, an inventory of sites designated under community/ national environmental legislation was requested (DAEUINPT/ DAEUINPTV2) so as to derive a simple indicator of environmental quality for each NUTS3 region but this has not been forthcoming. Similarly, a dataset showing LEADER LAG areas (LDEC1MV1) or Structural Fund designations (SFEC3MV1/ SFEC1MV2-5) would

## **10.2 Further Research**

### **10.2.1 Continuations and Updating**

Within the time constraints of this project we have been unable to work with estimates of the impacts of the MTR as agreed in June 2003 and as implemented by Member States. Indeed, many MS are still deciding how to implement the MTR. Instead we have made use of the CAPRI model estimates of the impacts of the Commission's MTR proposals, as explained in Section 6.4. However, in the week before the submission of this report we received details of further outputs from the CAPRI team which model the impacts of MS' anticipated implementation of the MTR, and the CAPRI team will continue to revise their modelling as this proceeds. The CAPRI team are also currently extending their model to cover the NMS.

There would be considerable value in the ESPON Monitoring Committee providing a small amount of further funding to TPG 2.1.3 to update and extend to the NMS our analysis of the impacts of the MTR at NUTS3 level, as Member States agree how precisely they will implement the MTR (e.g. on what basis Single Farm Payments will be made) and as further outputs from the CAPRI model become available. Variation in the basis of SFPs may lead to much greater territorial differentiation in the impact of the MTR reforms on environment, farm incomes and practices.

Similarly, within the next few months it will be possible to use the latest CORINE data to incorporate the analysis of changes in land cover at NUTS3 level.

### **10.2.2 Suggestions for Further Studies**

In this report we have necessarily focused on policy instruments and their impact, while recognising that many other factors also give rise to territorial divergence and issues of spatial development in rural areas. The case study of household adjustment strategies and trends in Ireland was particularly useful in examining this broader picture, and it is suggested that this might usefully be supplemented by similar, additional country studies drawn especially from the Mediterranean countries and from the New Member States.

Two particular issues may also be noted as important for future research. The first of these concerns territorial implications of changes in the food supply chain. Major changes are continuing in the dominant agro-industrial food system, with increasing concentration of power amongst global food corporations and retailers, and these changes might be expected to have significant territorial implications. At the same time, there are counter-movements towards the 'relocalisation' of food, through short supply chains and alternative food networks (e.g. 'slow food'). Very little work has been undertaken to examine the implications of these tendencies for spatial development. The second issue we wish to highlight concerns local labour market problems and particularly the growing reliance of the agricultural industry on casual labour, often provided by immigrants. It may be worthwhile to explore the spatial aspects of this tendency, and of a growing vulnerability of certain rural economies and territories to changes in migration patterns and regulations.

Finally, we recommend a Futures Study specifically attempting a foresight analysis of the rural areas of the EU27. Under conditions of rapid change, scenario analysis, horizon scanning and foresight exercises have become a common tool in the visioning of rural futures

(Newby, 2004), allowing recognition of strategic choices and pinpointing crucial data requirements. In the context of multi-level governance, differentiated tendencies of rural territories and divergent policy traditions, such a study could play an important role in promoting a more coherent and integrated policy response from the EU, Member States and regional and local actors.

## **Part II Appendices/Annexes**

### **A 1 LFA Boundary and Percent of Area within LFA at NUTS3**

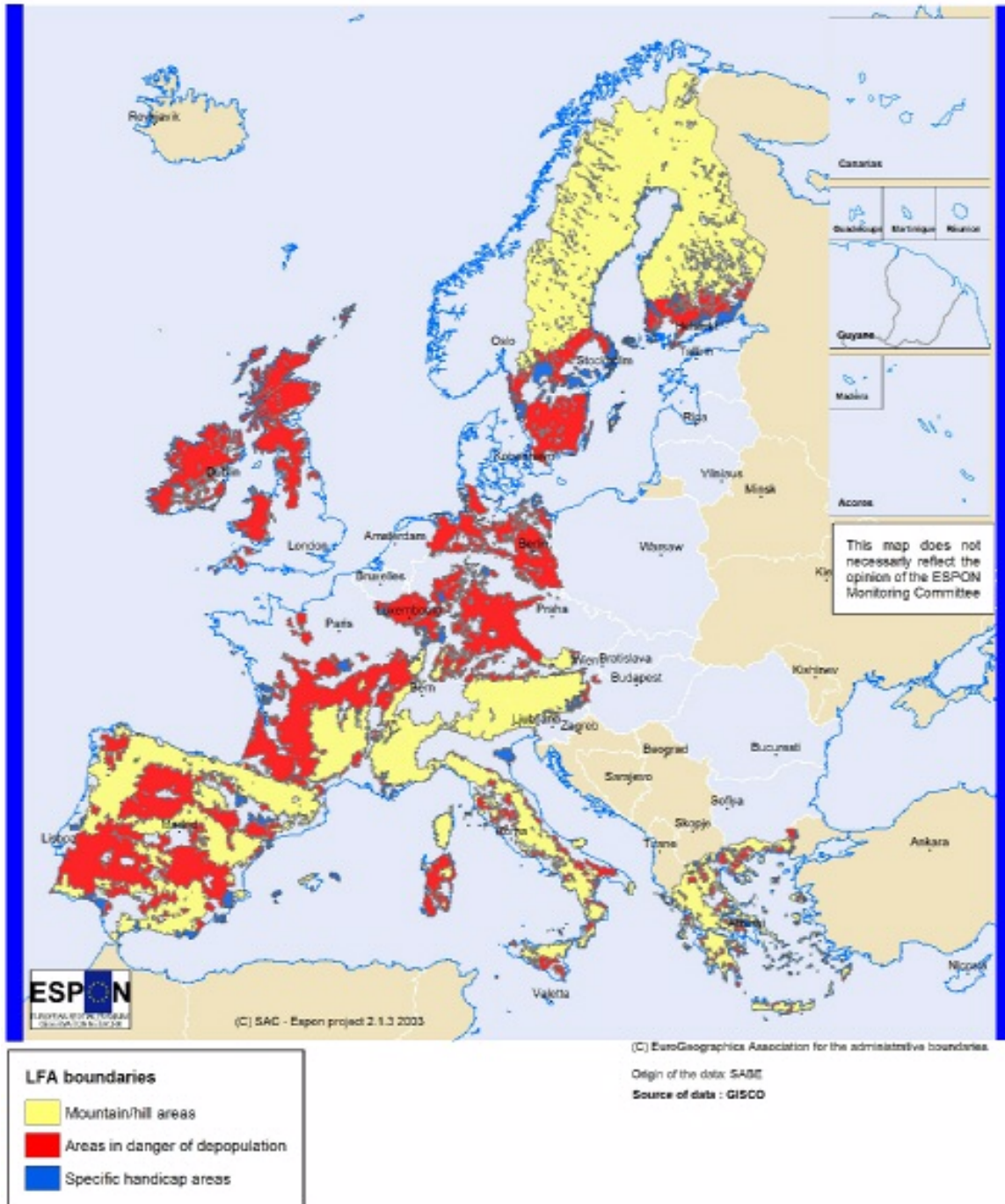
The original data (from Nordregio's EU Mountain Project, 2004) contains a large number of digitised "polygonal" boundaries for each type of LFA, together with the area in square metres for each polygon. The first step was to aggregate the contiguous polygons for each type, summing the areas at the same time. The aggregate boundary for each of the three types of LFA was then split using the NUTS3 boundaries as a "cookie cutter". This gave up to three polygons for each NUTS3 region, one for each type of LFA. The area data for each LFA type was also split into the NUTS3 regions.

Although not evident in the map below, there is a degree of inaccuracy in the digitisation, so that some LFA is in the sea, and some is across borders into NMS or EFTA countries. When calculating the area of LFA for each NUTS3 region, these discrepancies, which amount to about 1% of the total LFA area, have been ignored.

Map 0.1 shows the boundaries of EU-15 Less Favoured Areas superimposed on the NUTS3 boundaries within "ESPON space". The different colours signify LFA designations under different Articles of the Regulation (no. 2328/91): yellow denotes mountain/hill areas (Article 3.3), red areas in danger of depopulation (Article 3.4), and blue areas with specific handicaps (Article 3.5). The original file also contained polygons for non-LFA areas, "lakes" (non-LFA areas surrounded by LFA), and non-EU areas. All these have been excluded from the analysis below (for convenience, non-LFA area is simply defined as total area-LFA).

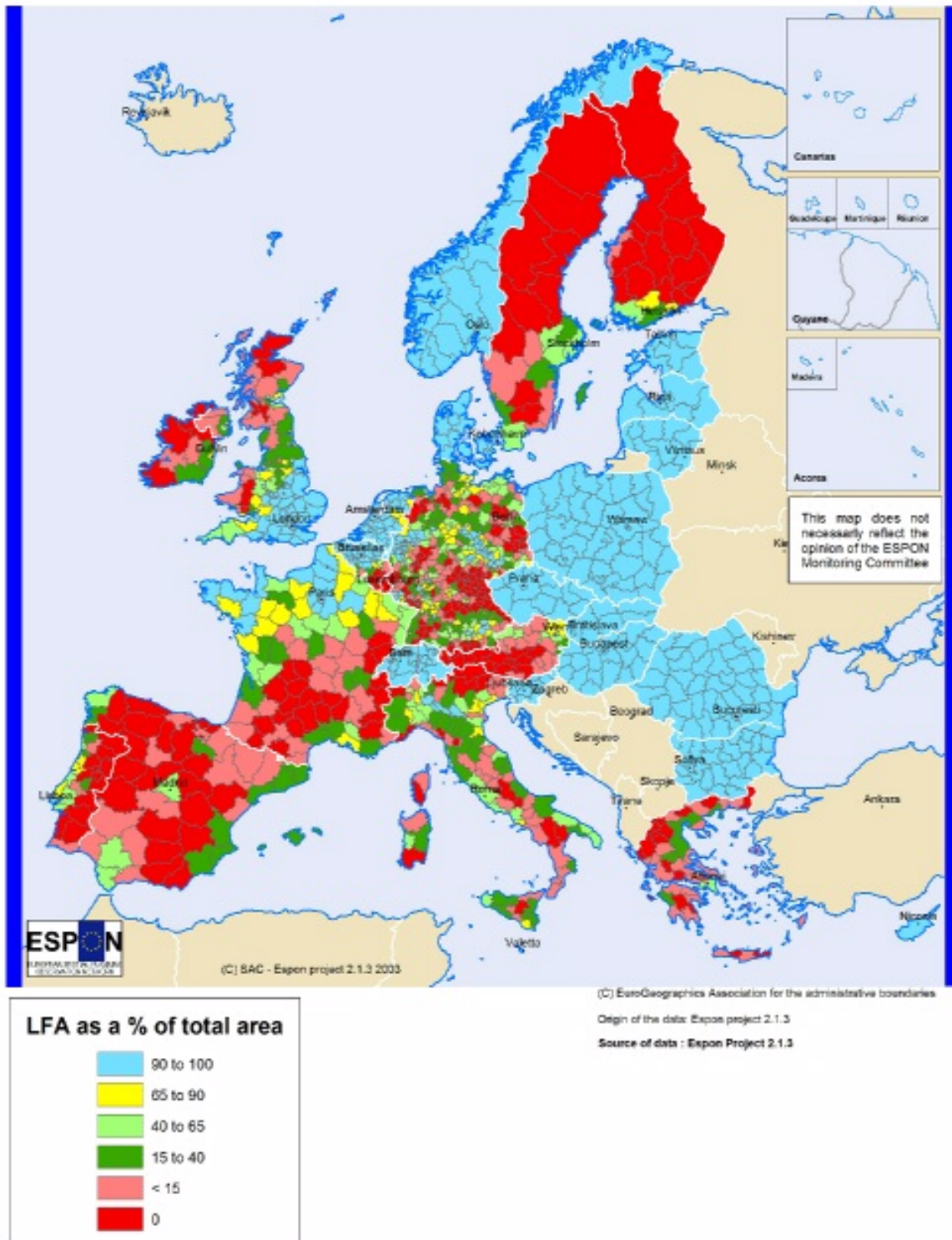
The area data was transferred to an Excel file (LFA Area by NUTS3 Region.xls), a "total LFA" area for each region calculated, and then expressed as a percentage of the total land area derived from the REGIO Database. The results are shown in Map 0.2 below.

**Map 0.1: The LFA Boundary and NUTS3 Boundaries**





**Map 0.2: LFA Area as a Percentage of Total Area by NUTS3 Region**



## A 2 Clustering Methods

### A 2.1 General

For the EU-15, cluster analysis enabled us to depict the development trajectories of NUTS3 regions in relation to their geography, structural change, labour market and land use after decades of policy intervention in farming and farming-related activities. For the N12, the historical specificity of their land use patterns (land abandonment, semi-subsistence farming, soil degradation, land legislation etc.) during both the socialist era and the transition period since 1989, their different agricultural structures (surplus labour, dualism, infrastructure etc.), their inadequate local/regional development institutions and the absence of a 'CAP/RDP scenario', elevated them into a totally distinctive group of countries which demand statistical inference in its own right. Also, as stated in Chapter 3 above, only a limited number of indicators was available for the N12: this cluster analysis allowed regions to be grouped around the triad of accessibility-unemployment-productivity.

### A 2.2 Clustering variables

Table 0.1 lists the variables and data used in the clustering exercise for both the EU-15 and the N12. Core economic indicators such as GDP and employment alongside agricultural land use indicators were used. Analysis resulted in a ten-cluster solution for the EU-15 and a seven-cluster solution for the N12, as outlined in Chapter 3.

**Table 0.1: NUTS3 Regions Clustering Variables used in Clustering**

Clustering Variables	Source, with Source Variable Name(s) for:	Units	EU-15	N12
Total population (1999)	Eurostat REGIO Tables D3POP TOTAL	1000 persons	Not used	4
% Population change (1989-99)	As above, and 1989: $[(1999-1989) * 100 / 1989]$	1000 persons	4	Not available
Population density (1999)	Eurostat REGIO Tables D3DENSIT	number of inhabitants per km <sup>2</sup>	4	4
GDP/head (2000)	Eurostat – REGIO, GDP00PH, Calculation algorithm: GDP in MIO PPS / inhabitants *1000000 (P_3_1_GDP_95_00_N3) (Espon Database Version 2_3)	GDP 2000 Purchasing Power Standards per inhabitant	4	4
% Change in GDP /head (1995-2000)	As above, and 1995; GDP95PH and GDP00PH: $[(2000-1995) * 100 / 1995]$	As above	4	4
Unemployment rate (2001)	Eurostat - REGIO, Unemployment rate total 2001, UNRT01: P_3_1_Unemployment_by_age_and_sex_1998_2001_N3) (Espon Database Version 2_3)	Percentage	4	4
Change in unemployment (1998-2001)	As above, and 1998; UNRT01 and UNRT98: $[(2001-1998)*100/1998]$	Percentage	4	4

Clustering Variables	Source, with Source Variable Name(s) for:	Units	EU-15	N12
Accessibility Time to Market <sup>41</sup> (1997): Macro Meso	Accessibility time to market by rail and road, half-life, weighted by GDP (1997) macroscale (1000 minutes), <sup>42</sup> GDP1000TTM mesoscale (25 minutes), <sup>43</sup> TTMGDP25TT (P_2_1_1_Timetomarket_Accessibility_by_rail_road_N3) (Espon Database Version 2_3)	ESPON Project 2.1.1 Indicator	4	4
Tourism (2000)	Eurostat-REGIO (Regio Database Variables); estab-hotels and sim estab 2000: (Espon Database Version 1)	Number of Hotels	4	Not available
% in Tourism (1995-2000)	As above, and 1995: [(2000-1995)*100/1995]	As above	4	Not available
Percentage employed in agriculture, forestry and fishing (1995)	Eurostat REGIO Table E3EMPL79 / XE2EMPL; PCEMPAFF95: (P_2_1_3_Employed_in_agricultur_forestry_fishing_77_97_N3)(Espon Database Version 2_3)	Percentage	4	Not available
% Change in perc. employed in agriculture, fishing, forestry (1995-88)	As above, and 1988; PCEMPAFF95 and PCEMPAFF88: [(1995-1988)*100/1988]	Percentage	4	Not available
Average farm size (1999)	Derived by the project 2.1.3 from FADN Database	Economic Size Units (ESUs)	4	Not available
Age of farmers (% over 65) (1997)	Eurostat REGIO Tables A2EFARM, Calculation algorithm: A2EFARM L116 / L126 * 100 (allocated to NUTS3 by project 2.1.3)	Percentage of total number	4	Not available
% Change in age of farmers (over 65) (1995-97)	As above, and 1995: [(1997-1995)*100/1995]	As above	4	Not available
% Land Cover:	% of total agricultural area under: <sup>44</sup> (Corine NUTS3 Level 3) ( Espon Database Version 1) non-irrigated arable: <sup>45</sup> irrigation: <sup>46</sup> PCIRI rice: <sup>47</sup> PCRICE viticulture: <sup>48</sup> PCVIN: fruit and berries: <sup>49</sup> PCFRUIT olives: <sup>50</sup> PCOLIVE pasture: <sup>51</sup> PCPASTURE annual/permanent crops: <sup>52</sup> CANNPERM complex cultivation patterns: <sup>53</sup> PCCMPLEX agric with natural vegetation: <sup>54</sup> PCAGNAT	Percentage of total agricultural area (defined as the sum of the agricultural land use variables)	4	4

<sup>41</sup> The *accessibility* variable is an indicator developed by the ESPON project 2.1.1 ('Territorial Impact of EU Transport and TEN Policies'). Within the latter project (TIR, p. 33), "the average time to market of a region is used in order to measure disparities in accessibility beyond the market potential". More specifically, "*time to market measures the expected average time a firm or household in region r would need in order to reach the market*". It takes into account that larger markets must be visited more often, and that firms or households try to bias their interactions with the market in favour of those regions that are near by in order to save travel time. The indicator is standardized, such that the reference is a hypothetical region that can reach all markets with zero travel time. That means an indicator equal to 100 minutes for a certain region *r*, say, means that from that region one would need 100 minutes on average to reach the market partners for buying a good, signing a contract, or making use of other opportunities offered in a destination and measured by GDP".

<sup>42</sup> In the case of accessibility indicator on *macro* scale, the intensity of spatial interaction is halved every 1000 minutes of travel time to market (ESPON project 2.1.1).

<sup>43</sup> In the case of accessibility indicator on *meso* scale, the intensity of spatial interaction is halved every 25 minutes of travel time to market (ESPON project 2.1.1).

<sup>44</sup> This is the data from the ESPON Database version 1 (an MS access file available from our project web site). This is what the meta data says about the method of estimation: "Calculation of km2 value by area tabulation of Corine Land use values and NUTS3 GISCO 1 Mio set and redistribution on REGIO land area value". The source is the Corine land cover database, consisting of 250x250m grid squares.

<sup>45</sup> *Non Irrigated Arable Land*: Cereals legumes, fodder crops, root crops and fallow land. Includes flower and tree (nurseries) cultivation and vegetables, whether open field, under plastic or glass (includes market gardening). Includes aromatic, medicinal and culinary plants. Excludes permanent pastures

<sup>46</sup> *Permanently irrigated arable land*: Crops irrigated permanently and periodically, using a permanent infrastructure (irrigation channels, drainage network). Most of these crops could not be cultivated without an artificial water supply. Does not include sporadically irrigated land

Cluster analysis is a statistical method which requires well-informed choices throughout its application (missing values, variance etc.). More specifically, the clustering variables have very different variances, so they have first to be standardised before clustering. However, before proceeding with standardisation, there are two other distinct steps in the process of analysing the NUTS3 region data set. The first is to describe the variables, taken singly, by using the mean (average), the range and other standard statistical characteristics of the distribution of variable values. In the light of the significant number of missing values in the data set, the second step is to judge the likelihood that the results can be generalised with a significant degree of confidence to the different regions.

Descriptive statistics were used to summarise different aspects of the variables. Table 0.2 presents the minimum, maximum, mean and standard deviation (square root of variance) of the NUTS3 values for each variable. As one can observe, there are a large number of missing values and the great heterogeneity of NUTS3 regions (as shown by the Minimum and Maximum columns) occasionally distorts the statistical results. For example, the case of NUTS3 region FR101 'Paris' with population density 20161.30 affects the mean population density for the EU27 as a whole (467.51).

The descriptive statistics for the raw data were used to create standardised variables in terms of Standard Deviation units across the EU27. This provided comparability between the two clustering subsets (EU-15 and N12). In other words, standard scores or z-scores were given as so many SDs above or below the mean. This is done by first determining how far above or below the mean the raw score is and then dividing that number by the SD:  $z$  (standard score) =  $(x - \text{mean}) / \text{standard deviation}$ . The  $z$  score variables have mean 0 and standard deviation 1.

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<sup>47</sup> *Rice fields*: Land developed for rice cultivation. Flat surfaces with Irrigation channels. Surfaces regularly flooded

<sup>48</sup> *Vineyards*: Areas planted with vines

<sup>49</sup> *Fruit trees and berry plantations*: Parcels planted with fruit trees or shrubs: single or mixed fruit trees associated with permanently grassed surfaces. Includes chestnut and walnut groves

<sup>50</sup> *Olive groves*: Areas planted with olive trees, including mixed occurrence of olive trees and vines on the same parcel

<sup>51</sup> *Pastures*: Dense, predominantly graminoid grass cover, of floral composition, not under a rotation system. Mainly used for grazing, but the fodder may be harvested mechanically. Includes areas with hedges (bocage)

<sup>52</sup> *Annual crops associated with permanent crops*: Non-permanent crops (arable land or pasture) associated with permanent crops on the same parcel

<sup>53</sup> *Complex cultivation patterns*: Juxtaposition of small parcels of diverse annual crops, pasture and/or permanent crops

<sup>54</sup> *Land principally occupied by agriculture, with significant areas of natural vegetation*: Areas principally occupied by agriculture, interspersed with significant natural areas

**Table 0.2: NUTS3 Region Clustering Variable Descriptives for EU27**

<b>Clustering Variables</b>	<b>No. of observations available</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
Population density	1281	1.90	20161.30	467.51	1057.48
Accessibility (meso)	1321	150.58	505.21	300.07	55.24
Accessibility (macro)	1321	1011.29	4372.82	1605.07	588.30
Population 1999	1281	19.60	5087.30	376.31	427.87
Population change	911	-21.14	50.56	4.65	7.60
Unemployment 2001	1214	.41	43.00	8.44	6.14
Unemployment change	1148	-72.73	388.24	-15.06	32.94
GDP/head 2000	1329	2674.40	99363.30	19163.33	8854.51
GDP Change	1329	-23.33	104.50	26.43	11.63
Employment in agriculture etc. 1995	1022	.00	48.63	6.25	6.26
Change in employment in agriculture etc.	905	-100.00	78.62	-23.92	14.41
Average farm size 1999	1069	.88	179.89	42.10	38.80
% non-irrigated arable	1247	.00	100.00	50.04	30.01
% irrigation	1247	.00	77.38	1.08	4.95
% rice	1247	.00	65.45	.21	2.55
% viticulture	1247	.00	75.13	1.63	5.90
% fruit	1247	.00	29.96	1.24	3.39
% olives	1247	.00	63.80	1.55	6.49
% pastures	1247	.00	99.87	21.10	26.18
% annual/permanent crops	1247	.00	67.81	.75	4.50
% complex cultivation	1247	.00	100.00	13.62	15.08
% natural vegetation	1247	.00	92.11	8.77	11.45
% Age of farmers over 65 (1997)	1093	3.62	49.68	17.90	10.79
Change in age of farmer over 65	1093	-47.68	77.46	5.77	18.95
No. of Hotels (2000)	1080	3.00	4507.00	185.22	300.07
Change in Hotels	931	-40.00	300.00	8.71	29.89
Valid N (listwise)	637				

### **A 2.3 Missing Values**

The usual way of handling missing values in cluster analysis is to drop any case with missing values from the analysis, using the default

selection (achieved within SPSS as) 'exclude cases list-wise'. However, if there are many missing values, as was the case here, one can calculate the distances of cases from cluster centres using valid values *only* by selecting the option 'exclude cases pair-wise'. Table 0.3 lists the percentages of missing data for the two datasets (EU-15 and N12) plus the variable labels, that is the abbreviation used to describe each clustering variable. For the EU-15, the availability of variables in change was more limited than in level because movements in administrative boundaries restricted the NUTS3 region data availability for previous years. It should be noted that missing values affect different countries unequally. For Greece, no NUTS3 data was available regarding employment in agriculture, fishing and forestry or unemployment rate. Unemployment data availability is also minimal for Portugal. Tourism data availability is very limited for the Netherlands. Land cover data is non-existent for Sweden. For the Accession Countries, total lack of population and land cover data availability is reported for Malta and Cyprus.

**Table 0.3: Clustering Variables, Labels, and Missing Values**

Clustering Variables (from Table 0.1)	<i>Variable Labels</i>	<i>% Missing for the EU-15</i>	<i>% Missing for the N12</i>
Total population (1999)	POP99	0.0	1.6
% Population change (1989-1999)	POPCHANG	16.7	100.0
Population density (1999)	POPDENSI	0.0	1.6
GDP/head (2000)	GDPPS00H	0.0	0.0
% Change in GDP/head (1995-2000)	GDPCHNG	0.0	0.0
Unemployment rate (2001)	UNMPL01	10.3	1.0
Change in unemployment rate (1998-2001)	UNMPLCHG	10.3	17.3
Accessibility (1997): • Macro • Meso	ACCEMACR AND ACCEMESO	0.7	0.0
Tourism (2000)	HOTELS00	3.4	100.0
% Change in Tourism (1995-2000)	HOTELSCH	17.0	100.0
Percentage employed in agriculture, fishing and forestry (1995)	EMPAFF95	6.5	100.0
% Change in perc. employed in agriculture, fishing and forestry (1995-1998)	EMPAFFCH	16.7	100.0
Average farm size 1999 (ESUs)	AVFAZ99	2.5	100.0
Age of farmers (% over 65) (1997)	AGE65Y97	0.0	100.0
% Change in age of farmers (% over 65)	PCAGECHG	0.0	100.0
% non-irrigated arable (agricultural land use)	PCNONIRR	3.1	1.6
% irrigation (agricultural land use)	PCPERIRR	3.1	1.6
% rice (agricultural land use)	PCRICE	3.1	1.6
% viticulture (agricultural land use)	PCVIN	3.1	1.6
% fruit and berries (agricultural land use)	PCFRUIT	3.1	1.6

Clustering Variables (from Table 0.1)	<i>Variable Labels</i>	<i>% Missing for the EU-15</i>	<i>% Missing for the NI2</i>
% olives (agricultural land use)	PCOLIVES	3.1	1.6
% pasture (agricultural land use)	PCPASTURE	3.1	1.6
% annual/permanent crops (agricultural land use)	PCCANNPER	3.1	1.6
% complex cultivation patterns (agricult. land use)	PCCOMCUL	3.1	1.6
% agric. with natural vegetation (agricult. land use)	PCAGNVEG	3.1	1.6

## **A 2.4 Factor analysis**

When many different variables are available for the same NUTS3 region, it is possible to determine if some of these variables are largely reflections of a smaller number of underlying factors. Factor analysis explores the interrelationships among the variables to discover these factors by attempting to identify underlying variables, or factors, that explain the pattern of correlation within a set of observed variables. The factors explain most of the variance observed in the much larger number of original variables. In the present study, principal component analysis was initially used to transform a set of correlated variables to a set of uncorrelated variables, which are subsequently used as the clustering variables. However, the use of principal components was found to be unable<sup>55</sup> to enhance the reliability of our cluster analysis, suggesting no need to reduce the number of variables in the analysis.

## **A 2.5 Hierarchical clustering**

In contrast to factor analysis that tries to determine whether different variables can be grouped together, cluster analysis examines whether regions can be grouped on the basis of their similarities. Cluster analysis consists of systematic but essentially exploratory techniques to search for hidden groups in multivariate data. There are two different clustering methods: hierarchical and K-means clustering.

In hierarchical clustering, the distance between each pair of cases (observations, NUTS3 regions in this case) is calculated and stored, and thus generates a nested solution by successively grouping the two closest cases or clusters of cases in a sequential process. The method is highly memory-intensive and inappropriate for samples of more than 200 cases. Thus hierarchical clustering was discarded as a possible option on the grounds of its inapplicability for large samples such as the NUTS3 region dataset where 1329 cases exist.

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<sup>55</sup> Since an increase rather than decrease has been reported in the occurrence of missing values when clustering is attempted in this way (valid: 637, missing: 456)

## **A 2.6 K-means clustering**

K-means clustering assigns cases to the closest cluster centre and successively re-allocates cases between established clusters until a stable solution is reached. Cluster centres are formed by assigning each case in turn to the cluster with the closest center and then updating the centre. An iterative process is used to find the final cluster centres. At each step, cases are grouped into the cluster with the closest center, and the cluster centers are recomputed. This process continues until no further changes occur in the centres, or until a pre-determined maximum number of iterations is reached. Once a larger group is divided, it ceases to exist as an entity in its own right (Norman and Streiner, 1999: 163). K-means clustering assumes that the number of clusters,  $k$ , is known, and thus is usually run for different values of  $K$ . The K-means clustering technique can be used for larger samples, and is less affected by outliers, inappropriate variables or similarity measures (Hair *et al.*, 1995). Thus K-means clustering was chosen as the most appropriate method to analyse the NUTS3 regions. The choice of the K-means approach reflected an implicit belief that each cluster is unique from all of the others, and that there is no hierarchy in the clustering of NUTS3 regions. In this study context, between 5 and 10 clusters were expected for each set of cases (EU-15 and the N12).

## **A 2.7 Clustering Methods for the EU-15**

Table 0.1(above) listed the variables and data used in the clustering exercise for the EU-15 (a total of 1093 NUTS3 regions). Because of the exploratory nature of analysis, a repeated approach was used, using runs with different values of  $K$  of 4 to 10. This resulted in a consistent and meaningful 10-cluster solution, described in more detail below. Among the 10 clusters found to be consistently present in the data, there were two large, three medium-sized and five small clusters. The means of Cluster 4 is furthest from the others, whilst those of Clusters 2 and 10 are closest together.

Analysis of variance (ANOVA) is a statistical procedure applied to multivariate groups that differ significantly, providing information about each variable's contribution to the separation of the groups in terms of mean-square values (Table 0.4). The between-cluster mean square is displayed in the column labelled Cluster, and the within-cluster mean square is displayed in the column labelled Error. The ratio of these two mean squares is the F-statistic. In other words, the F-statistic compares the between and within cluster mean square values. To summarise, the clusters are formed to characterise differences. The ANOVA shows that the between-cluster mean squares of some of the Corine Land Cover variables differ the most across the ten clusters for the EU-15 (Table 0.4). The mean squares of variables accessibility macro ( $F=152.989$ ), number of hotels ( $F=129.147$ ), average farm size



(F=105.114) and age of farmers more than 65 years old (F=104.623) across the ten clusters also differ significantly. The change variables differ the least across the different clusters, and thus the mean squares of population change, GDP change and unemployment change are (F=8.820), (F=9.158) and (F=1.227) respectively.

**Table 0.4: Analysis of Variance in the clustering variable values for the EU-15**

ANOVA	Cluster (Between Cluster)		Error (Within Cluster)		F- statistic	Statistical Significance
Clustering Variables	Mean Square	D.F.	Mean Square	D.F.		
Zscore(POPDENSI)	41.61	9	0.73	1083	57.30	0.000
Zscore(ACCEMESO)	25.97	9	0.39	1075	66.16	0.000
Zscore(ACCEMACR)	54.61	9	0.36	1075	152.99	0.000
Zscore(POPCHANG)	8.82	9	0.92	901	9.57	0.000
Zscore(UNMPL01)	33.52	9	0.36	970	93.93	0.000
Zscore(UNMPLCHG)	1.23	9	0.15	935	8.29	0.000
Zscore(GDPPS00H)	44.32	9	0.47	1083	95.13	0.000
Zscore(GDPCHNG)	9.16	9	0.54	1083	16.95	0.000
Zscore(EMPAFF95)	43.16	9	0.62	1012	69.05	0.000
Zscore(EMPAFFCH)	21.13	9	0.80	895	26.45	0.000
Zscore(AVFARZ99)	55.99	9	0.53	1059	105.11	0.000
Zscore(PCNONIRR)	74.75	9	0.42	1049	177.28	0.000
Zscore(PCPERIRR)	45.81	9	0.67	1049	68.50	0.000
Zscore(PCRICE)	120.64	9	0.15	1049	827.69	0.000
Zscore(PCVIN)	102.78	9	0.28	1049	364.55	0.000
Zscore(PCFRUIT)	14.64	9	0.95	1049	15.43	0.000
Zscore(PCOLIVES)	101.82	9	0.30	1049	336.95	0.000
Zscore(PCPASTUR)	102.77	9	0.25	1049	405.02	0.000
Zscore(PCANNPER)	114.07	9	0.20	1049	562.98	0.000
Zscore(PCCOMCUL)	46.14	9	0.68	1049	67.88	0.000
Zscore(PCAGNVEG)	24.57	9	0.66	1049	37.13	0.000
Zscore(AGE65Y97)	56.43	9	0.54	1083	104.62	0.000
Zscore(PCAGECHG)	27.21	9	0.78	1083	34.79	0.000
Zscore(HOTELS00)	62.57	9	0.48	1046	129.15	0.000
Zscore(HOTELSCH)	26.78	9	0.76	897	35.15	0.000

The significance levels cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Table 0.5 reports the means of the standardised variables for each cluster. For example, the average employment in agriculture, forestry and fishing [EMPAFF95] for Cluster 8 NUTS3 regions is 1.67 standard deviations above the mean for all NUTS3 regions, whilst the average meso accessibility time to market for Cluster 6 is -1.32 standard deviations below the overall mean. This is one of the methods used to interpret cluster profiles. In order to understand the meaning of the

cluster, it is also helpful to identify the cluster membership. Cross-tabulation is used to analyse a breakdown of country, LFA type<sup>56</sup> and OECD type (Table 0.6) by cluster membership. Cluster membership can be visualised in Map 0.3

Table 0.7 provides an overview of the emerging cluster profiles and their distinguishing variables in level and/or change (cluster labels can be found in Table 0.3).

**Table 0.5: Final Cluster Centres for the EU-15**

Final Cluster Centres	1	2	3	4	5	6	7	8	9	10
Zscore(POPDENSI)	- 0.30	0.16	- 0.26	- 0.40	- 0.21	2.11	- 0.11	- 0.30	0.15	- 0.18
Zscore(ACCEMESO)	0.63	- 0.41	- 0.28	0.71	0.37	- 1.32	- 0.24	0.43	- 0.55	- 0.41
Zscore(ACCEMACR)	1.13	- 0.20	- 0.33	0.81	1.86	- 0.73	- 0.40	1.40	- 0.47	- 0.63
Zscore(POPCHANG)	- 0.43	0.07	0.88	- 0.45	- 0.22	- 0.26	- 0.24	- 0.05	0.08	0.27
Zscore(UNMPL01)	0.94	- 0.51	1.41	- 0.49	- 0.13	- 0.20	0.37	1.06	- 0.86	- 0.52
Zscore(UNMPLCHG)	- 0.26	- 0.24	- 0.13	- 0.63	- 0.59	- 0.17	- 0.15	- 0.10	- 0.56	- 0.27
Zscore(GDPPS00H)	- 0.42	0.24	- 0.23	0.22	- 0.50	2.16	- 0.15	- 0.40	0.44	0.28
Zscore(GDPCHNG)	0.39	0.22	- 0.14	- 0.54	0.67	0.07	- 0.24	0.59	0.42	- 0.14
Zscore(EMPAFF95)	1.55	- 0.23	0.45	- 0.14	1.58	- 0.91	- 0.24	1.67	0.00	- 0.09
Zscore(EMPAFFCH)	- 0.19	0.44	- 0.35	0.87	- 0.16	1.03	- 0.14	0.03	0.54	- 0.39
Zscore(AVFARZ99)	- 0.89	- 0.18	- 0.38	- 0.27	- 0.97	- 0.19	1.10	- 0.93	0.78	- 0.29
Zscore(PCNONIRR)	- 0.40	- 1.03	- 0.87	- 0.83	- 1.10	0.37	1.16	- 1.09	- 1.12	- 0.16
Zscore(PCPERIRR)	1.83	- 0.22	- 0.20	- 0.22	- 0.06	- 0.22	- 0.22	0.08	- 0.22	- 0.21
Zscore(PCRICE)	0.02	- 0.08	- 0.07	18.9 8	0.29	- 0.02	- 0.08	0.02	- 0.08	- 0.05
Zscore(PCVIN)	0.19	- 0.27	7.41	0.10	0.46	- 0.16	- 0.24	0.40	- 0.24	- 0.07
Zscore(PCFRUIT)	0.63	- 0.35	0.46	- 0.26	0.71	0.58	- 0.22	0.59	- 0.12	- 0.14

<sup>56</sup> Variable [lfapctyp] (% LFA Area by NUTS3 Region)[Source: *Espon 2.1.3. Website: [www.sac.ac.uk/espon](http://www.sac.ac.uk/espon)*] Group 1: lowest through 25%, Group 2: 25% through 50%, Group 3: 50% through 75%, Group 4: 75% through highest

<b>Final Cluster Centres</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Zscore(PCOLIVES)	0.31	- 0.24	- 0.15	- 0.24	0.62	- 0.24	- 0.24	4.48	- 0.24	- 0.17
Zscore(PCPASTUR)	- 0.72	1.94	- 0.62	- 0.79	- 0.80	- 0.28	- 0.48	- 0.74	1.97	- 0.12
Zscore(PCANNPER)	0.22	- 0.16	- 0.10	- 0.15	9.46	- 0.17	- 0.17	0.63	- 0.10	- 0.14
Zscore(PCCOMCUL)	0.43	- 0.47	0.12	- 0.20	- 0.34	0.12	- 0.74	0.24	- 0.54	0.77
Zscore(PCAGNVEG)	0.78	- 0.54	- 0.20	0.33	0.60	- 0.29	- 0.46	1.03	- 0.42	0.01
Zscore(AGE65Y97)	1.35	- 0.10	0.03	0.37	1.80	- 0.60	- 0.51	1.73	0.22	- 0.24
Zscore(PCAGECHG)	- 0.06	- 0.44	0.05	- 0.37	0.03	- 0.29	0.83	- 0.22	0.00	- 0.27
Zscore(HOTELS00)	- 0.02	0.39	- 0.10	- 0.35	0.28	- 0.24	- 0.36	0.01	5.38	- 0.11
Zscore(HOTELSCH)	1.23	- 0.42	- 0.03	- 0.26	- 0.16	- 0.09	0.22	- 0.05	- 0.58	- 0.37

**Table 0.6: Crosstabulation of cluster membership by OECD type**

<b>Cluster Number</b>	<b>OECD TYPE</b>	<b>PR+ Leading</b>	<b>PR+ Lagging</b>	<b>I+ Leading</b>	<b>I+ Lagging</b>	<b>PU+ Leading</b>	<b>PU+ Lagging</b>	<b>Total</b>
<b>1</b>	Count	16	37	11	27	7	2	100
	% within Clusters	16.0%	37.0%	11.0%	27.0%	7.0%	2.0%	100%
<b>2</b>	Count	39	26	22	11	40	26	164
	% within Clusters	23.8%	15.9%	13.4%	6.7%	24.4%	15.9%	100%
<b>3</b>	Count	0	3	1	5	6	0	15
	% within Clusters	0.0%	20.0%	6.7%	33.3%	40.0%	0.0%	100%
<b>4</b>	Count	2	12	4	4	0	0	22
	% within Clusters	9.1%	54.5%	18.2%	18.2%	0.0%	0.0%	100%
<b>5</b>	Count	0	5	2	0	0	1	8
	% within Clusters	0.0%	62.5%	25.0%	0.0%	0.0%	12.5%	100%
<b>6</b>	Count	2	4	11	5	29	21	72
	% within Clusters	2.8%	5.6%	15.3%	6.9%	40.3%	29.2%	100%
<b>7</b>	Count	16	47	35	54	40	61	253
	% within Clusters	6.3%	18.6%	13.8%	21.3%	15.8%	24.1%	100%
<b>8</b>	Count	4	7	0	18	7	1	37
	% within Clusters	10.8%	18.9%	.0%	48.6%	18.9%	2.7%	100%
<b>9</b>	Count	4	6	8	0	6	17	41
	% within Clusters	9.8%	14.6%	19.5%	.0%	14.6%	41.5%	100%
<b>10</b>	Count	60	49	63	54	80	34	340
	% within Clusters	17.6%	14.4%	18.5%	15.9%	23.5%	10.0%	100%
<b>Total</b>	Count	143	196	157	178	215	163	1052
	% within Clusters	13.6%	18.6%	14.9%	16.9%	20.4%	15.5%	100%

**Table 0.7: Cluster Names and Profiles for the EU-15**

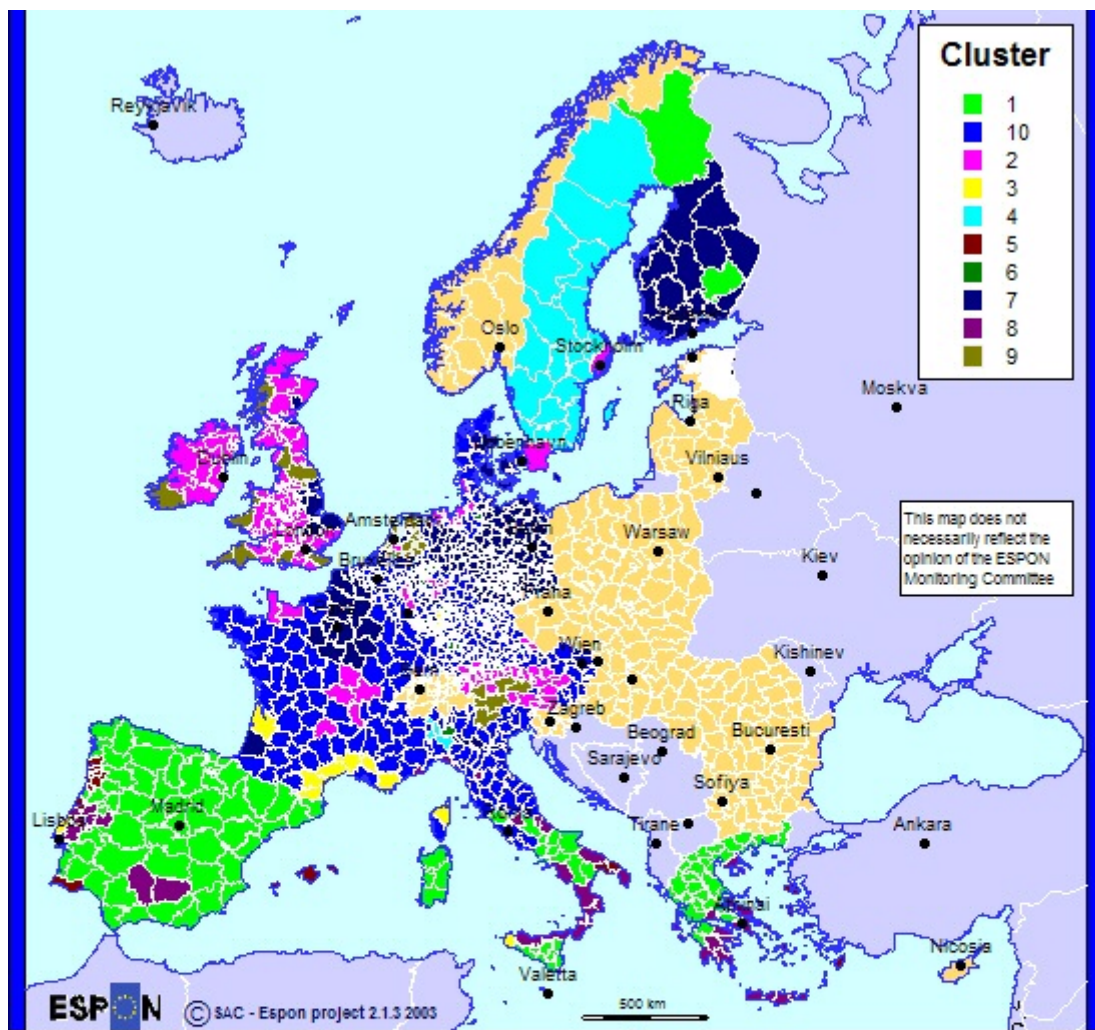
No.	No of NUTS3 Regions (1093)	Cluster Names	Countries (and Number of regions)	LFA and OECD type	High Cluster Labels (NB: high “acce” <sup>57</sup> means <i>less</i> accessible)	Low Cluster Labels (NB: low “acce” means <i>more</i> accessible)
1	111	<b>Agricultural Peripheral Regions</b>	ES (48), GR (29), IT (21), PT (11), FI (2)	PR+ Leading, or PR+ Lagging, LFA	land use: [piperirr, pcfuit, pcolives, pccomcul, pcagnveg], accemeso, accemacr, unmpl01, empaff95, age65y97, hotelschg	land use: [pcpastur], popchng, gdpps00h, avfarz99, popdensi
2	164	<b>Northern Mixed-Economy Regions</b>	UK (91), DE (41), AT (14), FR (7), IE (7), SE (2), NL (1), BE (1)	Miscellaneous	land use: [pcpastur], hotels00	land use: [pcnonirr, pcvin, pprice, pcfuit, pccomcul, pcagnveg], pcagechg, hotelschg, accemeso
3	20	<b>Vinecultural Regions</b>	FR (12), DE (6), IT (1), PT (1)	Miscellaneous	land use: [pcvin], popchng, unmpl01	land use: [pcnonirr], empafch
4	22	<b>Sweden!</b>	SE (19), IT (3)	PR+ Lagging, LFA	land use: [pprice], accemeso, accemacr empaffch	land use: [pcnonirr], popdensi, popchng, unmplchng, gdpchng, pcagechg, hotels00
5	18	<b>Agricultural Tourism (Coastal) Regions</b>	PT (10), GR (5), IT (2), ES (1)	PR+ Lagging	land use: [pcannper, pcvin, pcfuit, pcolives, pcagnveg], accemacr, gdpchng, empaff95, age65y97, hotels00	land use: [pcnonirr], gdpps00h, avfarz99
6	76	<b>Macro-City Regions</b>	DE (56), UK (11), DK (2), FR (4), IT (1), AT (1), BE (1)	PU+ Leading or PU+ Lagging, NonLFA	land use: [pcnonirr], popdensi, gdpps00h, empaffch	accemeso, accemacr, empaff95, age65y97
7	253	<b>Core Farming Regions</b>	DE (182), FI (17), FR (15), UK (16), NL (7), IT (4), ES (1), DK (6), BE (4), AT (1)	Non-LFA	land use: [pcnonirr], avfarz99, pcagechg	land use: [pprice, pccomcul, pcagnveg], age65y97, hotels00
8	43	<b>Southern Lagging Regions</b>	IT (18), GR (17), ES (2), PT (6)	Inter-mediate Lagging, LFA	LAND USE: [pcolives, pcvin, pcfuit, pcannper, pcagnveg], accemacr, unmpl01, gdpchng, empaff95, age65y97	Land use: [pcnonirr], gdpps00h, avfarz99, popdensi

<sup>57</sup> In Tables 7 and 9, the higher the index of ACCEMESO and ACCEMACR, the less accessible the NUTS3 region. The lower the index of ACCEMESO and ACCEMACR, the more accessible the region.

No.	No of NUTS3 Regions (1093)	Cluster Names	Countries (and Number of regions)	LFA and OECD type	High Cluster Labels (NB: high “acce” <sup>58</sup> means <i>less</i> accessible)	Low Cluster Labels (NB: low “acce” means <i>more</i> accessible)
9	41	<b>Diversified Farming Regions</b>	NL (24), UK (10), IT (3), IE (1), AT (3)	PU+ Lagging, Non-LFA	land use: [pcpastur], gdpps00h, avfarz99, hotels00	land use: [penonirr, pprice, pccomcul, pcagnveg], accemeso, accemacro, unmpl01, hotelschg
10	345	<b>Meso-Accessible Regions</b>	DE (156), FI (1), AT (16), FR(62) IT (50), BE (37), NL(8), LU, DK (7), PT(2),UK(5)	Miscellaneous	land use: [pccomcul], popchng, gdpps00h	accemeso, accemacr, unmpl01, empaffch, hotelschg

<sup>58</sup> In Tables 7 and 9, the higher the index of ACCEMESO and ACCEMACR, the less accessible the NUTS3 region. The lower the index of ACCEMESO and ACCEMACR, the more accessible the region.

**Map 0.3: Cluster membership of the EU-15**



© EuroGeographics Association for the administrative boundaries  
Regional Level: NUTS 3

Source of data: Estimated by Espon Project 2.1.3

Origin of Data: Estimated by Espon Project 2.1.3

## A 2.8 Clustering Methods for the N12

For the N12, a K-means clustering exercise was undertaken similar to that reported above for the EU-15, but with fewer variables since data was not available to the same extent. The reasoning behind the application of the k-means technique to this much smaller sample of NUTS3 regions (191, in total) lies in the necessity of obtaining comparability with the EU-15. Moreover, the unavailability of agricultural data for the N12 prevents their analytical examination here other than as the EU-15's counterpart to-be. Since the z-scores used in this clustering exercise have been calculated across the EU27, this helps to assess the relation between the cluster profiles for the N12 and those already described for the EU-15

The clustering exercise for the N12 resulted in a balanced allocation of NUTS3 regions between 7 clusters. Attempts to increase or decrease the number of clusters resulted either in very big clusters or numerous tiny clusters with analysis of variance being minimally helpful in making sense of the different solutions. Amongst these 7 clusters, there are two large clusters, three medium-sized clusters, and two small clusters. Clusters 2 and 4 are closest together, while the means of Cluster 6 are furthest from the others. In K-means clustering, there is no assumption that two 'daughter' groups are subsets of a larger group.

**Table 0.8: Analysis of Variance in the clustering variable values for the N12**

ANOVA	Cluster (Between Cluster)		Error (Within Cluster)		F- statistic	Statistical Significance
Clustering Variables	Mean Square	D.F.	Mean Square	D.F.		
Zscore(POPDENSI)	12.83	6	0.18	181	70.43	0.000
Zscore(ACCEMESO)	7.76	6	0.41	184	19.039	0.000
Zscore(ACCEMACR)	14.51	6	0.26	184	54.90	0.000
Zscore(UNMPL01)	31.86	6	0.95	182	33.51	0.000
Zscore(UNMPLCHG)	69.34	6	0.95	151	72.85	0.000
Zscore(GDPPS00H)	2.85	6	0.12	184	23.07	0.000
Zscore(GDPCHNG)	64.53	6	1.15	184	56.02	0.000
Zscore(PCNONIRR)	2.27	6	0.49	181	4.61	0.000
Zscore(PCPERIRR)	2.13	6	0.65	181	3.25	0.005
Zscore(PCRICE)	0.10	6	0.03	181	2.79	0.013
Zscore(PCVIN)	0.48	6	0.12	181	4.06	0.001
Zscore(PCFRUIT)	6.70	6	0.43	181	15.60	0.000
Zscore(PCOLIVES)	0.00	6	0.00	181	.	.
Zscore(PCPASTUR)	0.42	6	0.07	181	5.73	0.000
Zscore(PCANNPER)	0.11	6	0.02	181	5.47	0.000

<b>ANOVA</b>	Cluster (Between Cluster)		Error (Within Cluster)		F- statistic	Statistical Significance
Zscore(PCCOMCUL)	2.56	6	0.50	181	5.11	0.000
Zscore(PCAGNVEG)	17.75	6	0.86	181	20.51	0.000
Zscore(POP99)	8.55	6	0.51	181	16.76	0.000

The significance levels cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Analysis of variance (ANOVA) (Table 0.8) shows that, in contrast to the EU-15 clustering, change variables (in GDP and unemployment) differ the most across the different clusters of the N12 NUTS3 regions, whilst the variables in level differ the least. Thus, the between-cluster mean square of unemployment change and GDP change are 69.34 and 64.53 respectively. For the N12, macro-level accessibility is another significant indicator of their differences, with the between-cluster mean square being 14.51.

The final cluster centres (Table 0.9) remain the most illuminating output where one can read for example that the 'GDP change' mean for Cluster 5 is -1.48 standard deviation units below the overall mean, whilst the mean of population density for Cluster 6 is 7.76 standard deviation units above the overall mean. Table 0.10<sup>59</sup> shows the names given to each cluster on the basis of three different K-means clustering outputs for the N12 (a total of 191 NUTS3 regions): i. Final Cluster Centres for the N12 (Table 0.9); ii. Crosstabulation analysis of the N12 by cluster membership (Table 0.10); and iii. Mapping (Map 0.4). In this way, cluster profiles slowly build up which mostly reflect national situations and larger geographical divisions (Balkans, Baltic states, North/South, cities etc).

**Table 0.9: Final Cluster Centres for the N12**

<b>Final Cluster Centres</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Zscore(POPDENSI)	1.10690	-	-	-	-	7.76422	-0.24356
		0.03585	0.33589	0.34084	0.37561		
Zscore(ACCEMESO)	0.63645	1.57336	1.81077	1.81234	1.88937	0.20606	0.84355
Zscore(ACCEMACR)	0.23578	1.27874	1.51496	0.35477	1.73006	2.29479	0.25873
Zscore(UNMPL01)	0.88212	0.87911	0.11667	2.12367	1.77988	-	-0.35465
						0.71451	
Zscore(UNMPLCHG)	8.04812	1.72011	0.85922	2.80320	1.18323	1.43652	0.15744
Zscore(GDPPS00H)	-	-	-	-	-	-	-0.94068
	0.48947	1.16981	1.55370	1.26108	1.56792	0.73000	
Zscore(GDPCHNG)	2.49369	2.34238	-	1.14474	-	0.00087	0.23689
			1.80575		1.47555		

<sup>59</sup> Cluster labels can be found in Table 0.3.



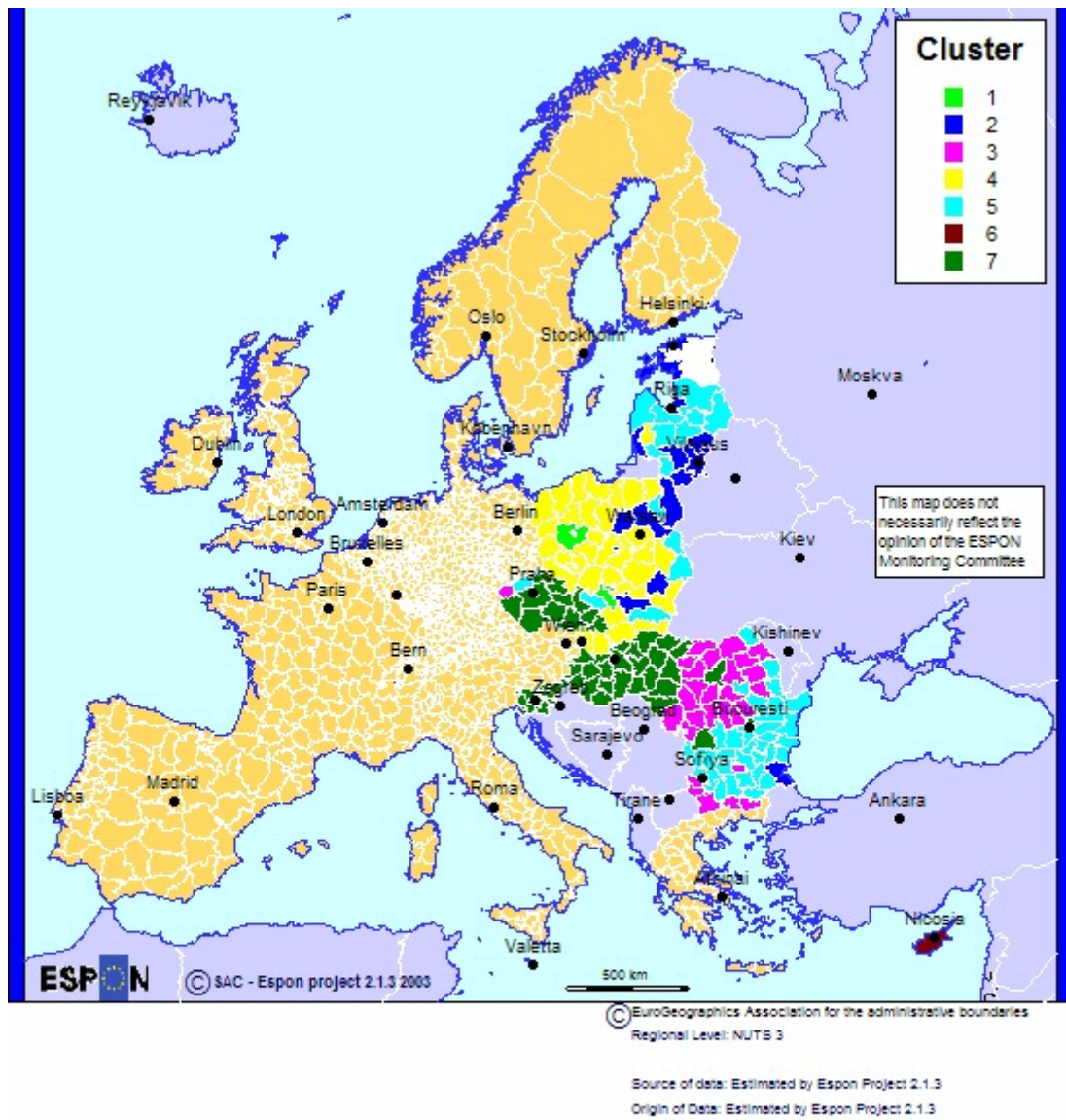
<b>Final Cluster Centres</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Zscore(PCNONIRR)	0.37521	0.01522	- 0.10271	0.70249	0.47460	1.08253	0.38507
Zscore(PCPERIRR)	- 0.21815	- 0.19896	- 0.19617	- 0.21812	0.38750	- 0.21815	-0.21684
Zscore(PCRICE)	- 0.08094	- 0.07985	- 0.07749	- 0.08092	0.05479	- 0.08094	-0.06114
Zscore(PCVIN)	- 0.27618	- 0.22837	0.04195	- 0.22014	0.07180	0.20346	-0.03891
Zscore(PCFRUIT)	- 0.26562	- 0.26780	1.10067	- 0.21242	- 0.03393	1.21707	-0.12999
Zscore(PCOLIVES)	- 0.23869	- 0.23869	- 0.23869	- 0.23869	- 0.23869	- 0.23869	-0.23869
Zscore(PCPASTUR)	- 0.36947	- 0.24663	- 0.62600	- 0.32456	- 0.47785	- 0.80590	-0.37386
<b>Final Cluster Centres</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Zscore(PCANNPER)	- 0.16663	- 0.16575	0.00245	- 0.16663	- 0.06600	- 0.16663	-0.13043
Zscore(PCCOMCUL)	0.35548	0.40923	- 0.50913	- 0.41463	- 0.39448	- 0.31458	-0.10513
Zscore(PCAGNVEG)	- 0.07324	0.48582	2.26013	- 0.06393	0.32274	- 0.73251	0.33617
Zscore(POP99)	2.14791	0.59217	0.22758	0.96747	- 0.00696	3.74809	0.23473

**Table 0.10: Cluster Names and Profiles for the N12**

No	No. of NUTS3 regions (191)	Cluster Names	Countries (and No. of regions)	High Cluster Labels (NB: high “acce” means less accessible)	Low Cluster Labels (NB: low “acce” means more accessible)
1	6	<b>Polish Cities</b>	PL (6)	land use: [pccomcul], popdensi, unmplchg, gdp00h, gdpchg, pop99	land use: [pcvin, pcfuit], accemeso, accemacr
2	19	<b>Dynamic Remote Regions</b>	PL (8), LT(5), EE (4), BG (1), LV (1)	land use: [pccomcul] accemeso, accemacr, gdpchg,	land use: [pcfruit, pcpastur], gdp00h
3	29	<b>Static Remote Regions</b>	RO (21), BG (7), CZ (1)	land use: [pcfruit, pcannper, pcagnveg], accemeso, accemacr	land use: [pcnonirr, pccomcul], popdensi, gdp00h, gdpchg, unmplchg,
4	34	<b>Dynamic Macro-Accessible Regions</b>	PL (27), SK (6), LT (1)	land use: [pcnonirr], accemeso, unmpl01, unmplchg, gdpchg,	popdensi, gdp00h, accemacr

No	No. of NUTS3 regions (191)	Cluster Names	Countries (and No. of regions)	High Cluster Labels (NB: high “acce” means <i>less</i> accessible)	Low Cluster Labels (NB: low “acce” means <i>more</i> accessible)
5	48	<b>Lagging Remote Regions</b>	BG (20), RO (13), PL (3), LT(4), LV(4), CZ (2), EE (1), SK (1)	land use: [pcperirr, pcrice], accemeso, accemacr, unmpl01	popdensi, gdp00h, gdpchng, pop99
6	4	<b>Meso-Accessible Regions (Medit. Islands plus Bucharest )</b>	CY, MT(2), RO (1)	land use: [pcnonirr, pcvin, pcfuit, pcpastur], popdensi, accemacr, pop99	land use: [pcagnveg], accemeso, unmpl01
7	51	<b>Stable Accessible Regions</b>	HU(20), CZ (11), SI (12), RO (7), SK (1)		accemeso, accemacr, unmpl01, unmplchg

**Map 0.4: Cluster membership of the N12**



### **A 3 Apportionment Methods**

Since much agricultural data was available only at levels higher than NUTS3 (in some cases only at country or EU-15 level), it was necessary to devise standard ways of estimating values at the NUTS3 level.

#### **A 3.1 Market Price Support (MPS)**

##### **A 3.1.1 Market Price Support in the EU-15**

Market price support (MPS) measures are collected annually by the OECD and reported at the EU-15 level, the only one at which (for example) border measures can be objectively defined. For the present study, MPS data was extracted for the following products<sup>60</sup>:

Wheat  
Maize  
Other grains  
Rice  
Oilseeds  
Refined sugar  
Milk  
Beef and Veal  
Sheep meat  
Pig meat  
Poultry meat  
Eggs  
Potatoes

In order to reduce the number of products, wheat, maize, other grains and rice were grouped under the category "cereals."

The following steps were then applied to MPS OECD data for the 1990-2001 period:

1. MPS was apportioned to each EU-15 country. To do so, we used the value of the production of the products above (after grouping cereals) registered in FADN database at the country level. Because the FADN database is a microeconomic one, its variables are expressed in monetary or physical terms per agricultural holding, averaged for each

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<sup>60</sup> It should be noted that MPS measures may be negative, i.e. when agricultural policy measures tax producers relative to what would happen in the absence of such measures. Typical examples of negative support to the producers are (i) export taxes that have the effect of discouraging production and imposing a domestic price below the world price, and (ii) input taxes. For the EU-15, negative support took place in 1992 for pig meat and in 1994 for eggs and ??poultrymeat.

FADN country. In order to derive totals per FADN country, each FADN variable was multiplied by the number of farms represented, to get "FADN country totals."

The FADN variables used to apportion were:

- SE140 Cereals
- SE160 Oilseed crops
- SE155 Sugar beet
- SE216 Cows milk
- SE220 Beef and veal
- SE230 sheep and goats
- SE225 Pigmeat
- SE235 Poultrymeat
- SE240 Eggs
- SE150 Potatoes

The value of these variables was summed across countries to get the EU-15 total value. Then, this total value was used to compute the ratio of each country participation in the total EU-15 production. Obviously, the sum of ratios across countries gives 1. These ratios were the ones used to distribute the MPS values per each product among countries.

2. Country-level values were distributed among the FADN regions. This implied using the same FADN variables mentioned above, but at the regional level. Again, we multiplied each variable by the "number of farms represented" to get totals by region. Then we summed these total values across regions within each country to get the totals by country. The next step was to compute the participation ratios for each region in a country. After that, the country-level subsidies were distributed among the regions.

3. Finally, the values were apportioned to NUTS3 using the 8 apportionment variables. One of the 8 apportionment variables was assigned to each MPS subsidy according to the list below. For each FADN region and each apportionment variable, the sum of the values for those NUTS3 regions in the FADN region was calculated, and hence the apportionment shares (adding up to 1) within each FADN region.

Subsidy\_MPS      Apportionment (8 NUTS3 variables)

Cereals	Arable area
Oilseeds	Arable area
Sugar	Arable area
Milk	Dairy cows
Beef and veal	Total beef number
Sheep meat	Total Sheep and goats

Pig meat	Total number of holdings
Poultry meat	Total number of holdings
Eggs	Total number of holdings
Potatoes	Arable area

### *Notes Concerning Missing Values*

FADN has some missing values. For the year 2000 there is no data for DE (Germany), NL (Netherlands) and GR (Greece). What we did was to copy the values of 1999 into 2000 for these countries.

FADN does not offer data for 2001. Hence, we copied the 2000 values into 2001, to be able to apportion 2001 subsidies.

### **A 3.1.2 Market Price Support in the NMSs**

The procedure was similar to the one described above. Instead of FADN, however, the REGIO database<sup>61</sup> was used. Additionally, and due to a lack of information on NMS countries, instead of using production values as apportionment variables, we utilized hectares and animal populations. The process consisted of an apportionment first to NUTS2 and finally to NUTS3. The apportionment to the country-level here was not necessary, as OECD offers MPS data at the country level for NMS.

Data availability allowed the apportionment of values for the following countries:

1. Czech Republic (CZ)
2. Hungary (HU)
3. Poland (PL)
4. Slovakia (SK)

The data taken from REGIO was derived from the Crop production (areas harvested) and the Animal Populations (December survey) tables. REGIO gives totals per region and thus, contrary to the process described above, we did not need to compute the totals per each region before proceeding. Specifically, the variables used for the apportionment were the following:

Subsidy_MPS	Apportionment (REGIO hectares and animal populations)
Cereals	Cereals
Oilseeds	Oilseeds
Sugar	Sugar

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<sup>61</sup> The FADN data currently only covers EU-15 countries.

Milk	Dairycow
Beef and veal	Cattle
Sheep meat	Sheep
Pig meat	Pigs
Poultry meat	Poultry
Eggs	Poultry
Potatoes	Potato

The years that were downloaded from REGIO are 1995-2000. Though some variables were also collected by REGIO for the period before 1995, the collection was more virtual than real. Pre-1995 values are almost all missing. The ones that are not missing are at the country level. Country level data is not relevant for us, as the MPS for NMS countries is already registered at the country level.

#### *Notes on Missing Values*

For Slovakia, the years 1995 and 1996 could not be used, since there is an overwhelming number of missing values. Values for 1997 were used for these years.

For Hungary, there are no data on dairy cows before 2000. We have filled in the gap with number of bovines. The same was done for Poland for the years 1995, 1996 and 1997.

For Hungary, values for the variables HU011 and HU012 (NUTS3) are almost always missing. Gaps were filled by distributing the values of HU01 (NUTS2) equally between HU011 and HU012.

### **A 3.1.3 Norway and Switzerland**

In these cases, the apportionment was done directly from the country to the NUTS3 level. No intermediate apportionment was done, due to data constraints. So, summarizing, we computed the ratio of participation of each NUTS3 in the country, and used this ratio to apportion MPS.

The variables used to apportion MPS for Norway and Switzerland are detailed below:

Subsidy_MPS	Apportionment (8 apportionment variables)
Cereals	Arable area
Oilseeds	Arable area
Sugar	Arable area

Milk	Dairy cow
Beef and veal	Cattle
Sheep meat	Sheep
Pig meat	Agricultural Holdings
Poultry meat	Agricultural Holdings
Eggs	Agricultural Holdings
Potatoes	Arable area

### **A 3.2 EU-15 FADN Data**

Agricultural data is collected in the EU's annually conducted Farm Accountancy Data Network (FADN) and reported by "FADN regions". Such data covers a wide variety of physical and monetary agricultural data.

FADN regions are mostly made up of NUTS3 regions but sometimes have different boundaries, in some cases coinciding with NUTS2 regions. To carry out the apportionment, data at the NUTS3 level for 8 agricultural "apportionment variables", such as total agricultural area (UAA) and total dairy cow numbers, were collected from Eurostat and national sources.

The following steps were then applied to each of the 1989-2000 FADN databases:

1. One of the 8 apportionment variables was assigned to each FADN variable (other than "intensity ratios" such as crop yields per hectare for which apportionment is not appropriate). The assignment of the apportionment variables is recorded in the file "FADN\_Apportionment"
2. Appendix 3.B in the "Study on the Impact of Community Agricultural Policies on Economic and Social Cohesion (in preparation of the second cohesion report)", ([http://europa.eu.int/comm/regional\\_policy/sources/docgener/studies/pac\\_en.htm](http://europa.eu.int/comm/regional_policy/sources/docgener/studies/pac_en.htm)) was used as the equivalence between FADN regions and NUTS3 regions. For each FADN region and each apportionment variables, the sum of the values for those NUTS3 regions in the FADN region was calculated, and hence the 8 NUTS3 "apportionment shares" (adding up to 1) within each FADN region.
3. Because the FADN database is a microeconomic one, its variables, e.g. farm commodity output value or quantity, are expressed in monetary or physical terms per agricultural holding, averaged for each FADN region. Obviously, values per holding cannot be directly apportioned. In order to derive totals per FADN region, each FADN



variable was multiplied by the number of farms represented, to get "FADN region totals".

4. Finally, each "FADN region total" (Step 3) was multiplied by the appropriate (Step 1) "apportionment share" (Step 2) to get NUTS3 totals.

### **A 3.3 Rural Development Support Measures**

The purpose of this procedure was to apportion rural development support measures to EU-15 NUTS3 regions. We took country-level rural development figures from *Europe's Rural Futures: the Nature of Rural Development II*, comparative report by Janet Dwyer, David Baldock, Guy Beaufoy, Harriet Bennett, Philip Lowe and Neil Ward for Land Use Policy Group (LUPG) and WWF Europe, December 2002. We took data for the years 2000 and 2001. Rural development measures are expressed in million euros.

The following two steps were applied to apportion the data:

1. Country-level values were first apportioned to the FADN regions. To do so, we used, as the apportionment variable, the value of the subsidies registered in FADN that are related to rural development measures. Specifically, the FADN variables used in the apportionment were:

SE620\_other\_subs\_cu\_  
SE621\_environmental\_subs\_cu\_  
SE622\_LFA\_subs\_cu\_

In order to derive a proxy for rural development from FADN database, we added the value of the three variables above:

rural development proxy=  
SE620\_other\_subs\_cu\_ + SE621\_environmental\_subs\_cu\_ +  
SE622\_LFA\_subs\_cu\_

Because FADN database is a microeconomic one, its variables are expressed in monetary of physical terms per agricultural holding, averaged for each FADN region. In order to derive totals per FADN region, each FADN variable was multiplied by the number of farms represented. The value of the rural development proxy was then summed across regions within each country to get the totals by country. The next step was to compute the participation ratios for each region in a country. After that, the country-level subsidies were apportioned to the FADN regions.

2. Finally, the values were apportioned to NUTS3 region using one of the 8 apportionment variables. The variable "number of agricultural holdings" was selected for the apportionment of rural development

measures from FADN regions to NUTS3 regions. We summed the variable “agricultural holdings’ for the NUTS3 regions in each FADN region, and hence we derived the apportionment shares (adding up to 1) within each FADN region.

### **A 3.4 Less Favoured Areas Support**

The purpose of this procedure was to apportion less favored areas (LFA) support measures to EU-15 NUTS3 regions. We took country-level LFA figures from the Special Report of the European Court of Auditors entitled *Special Report No 4/2003 concerning rural development: support for less-favored areas, together with the Commission replies* (available at [http://www.eca.eu.int/EN/reports\\_opinions.htm](http://www.eca.eu.int/EN/reports_opinions.htm)). We took data for the years 2000 and 2001. LFA figures are expressed in million euros.

In order to apportion LFA support measures we used the hectares of LFA in each NUTS3 area as an apportionment variable. Data were apportioned directly from country to NUTS3 regions. We summed the hectares of LFA in each NUTS3 region for the regions in each country, thus deriving the apportionment shares (adding up to 1) within each country. Finally, country-level LFA totals were multiplied by the appropriate apportionment share to get NUTS3 data.

### **A 3.5 CAPRI Impact Measures**

The purpose of this procedure was to apportion CAPRI impact measures from NUTS2 to NUTS3 level. Attention was centred on the following three “impact variables”: CAP premiums, gross value added (GVA) plus CAP premiums, and global warming potential (CO<sub>2</sub> emissions). Values of these variables were available from the CAPRI project for two situations, i.e. the benchmark scenario (absence of MTR), and the implementation of the MTR of the CAP, both forecast for the year 2009. The first two of these variables were available for 8 groups of commodities (cereals, oilseeds, other arable crops, perennial crops, fodder, set aside, cattle and other animals); global warming potential was not disaggregated by commodity.

For the CAP premiums and GVA plus CAP premiums results, one of the 8 standard apportionment variables (see SIR, Section 6.4 and Appendix 5) was assigned to each commodity group, as below:

<u>CAPRI commodity group</u>	<u>Apportionment variable</u>
Cereals	Arable area
Oilseeds	Arable area

Other arable crops	Arable area
Perennials	Permanent crops
Fodder	Number of beef cattle
Set aside	Utilised agricultural area
Cattle	Number of beef cattle
Other animals	Agricultural holdings

The apportionment variable values were summed across NUTS3 regions in each NUTS2 region, and the NUTS3 shares thus derived were used to apportion the two CAPRI impact measures.

Once both the two impact variables were apportioned for each of the eight commodities, these were summed across commodities to get a single estimate, for each NUTS3 area, of the CAP premiums and the GVA plus CAP premiums. The 2009 CAPRI-forecasted differences in these two variables were then computed, and the result expressed as a percentage of the base scenario value.

For the CAPRI global warming potential variable, the selected apportionment variable was utilized agricultural area. After apportioning this variable from NUTS2 to NUTS3 level, the 2009 CAPRI-forecasted differences in CO<sub>2</sub> emissions for the MTR scenario relative to the reference scenario were determined as percentages.

### A 3.6 Early Retirement Scheme and NUTS3 Analysis

**Table 0.11: Agrarian Structures in the EU-15**

Country	% Employment in agriculture, forestry and fishing (1995)	% Age of farmers over 65 years old (1997)	Average farm size in ESUs (1999)	% Unemployment rate (2001)
BE	4.50	18.39	51.34	6.40
DK	6.43	21.01	64.10	4.50
DE	4.21	8.96	56.84	8.32
ELL		34.40	5.74	10.40
ES	12.26	31.23	10.14	13.31
FR	6.96	15.80	43.02	8.95
IE	14.57	21.89	19.69	3.94
IT	9.55	35.58	10.19	9.08
LU	2.39	19.52	0.88	2.40
NL	5.27	18.91	103.44	2.39
AT	8.03	10.06	9.07	3.54
PT	22.87	38.19	5.84	2.87
FI	9.84	5.50	23.28	10.25
SE	5.10	19.86	35.33	5.63
UK	3.35	21.88	41.55	5.30
Total	6.25	17.90	42.10	7.69

Source: Eurostat Regio Data at NUTS3 level

**Table 0.12: NUTS3 Regional Data**

COUNTRY	<i>Spain</i>	<i>Spain</i>	<i>France</i>	<i>France</i>	<i>Greece</i>	<i>Greece</i>	<i>Ireland</i>	<i>Ireland</i>
REGION AT NUTS2 LEVEL	Castille y León	Castille y León	Pays de la Loire	Champagne -Ardenne	North Aegean Islands	Ionian Islands	Border, Midlands Western	Southern and Eastern
NUTS3 LEVEL <sup>62</sup>	Burgos	Soria	Vendée	Marne	Lesvos	Lefkada	West	S West
NUTS3 LEVEL	ES412	ES417	FR515	FR213	GR411	GR224	IE013	IE025
OECD Type <sup>63</sup> , P= Predominantly	Interm + Lagging	P Rural + Lagging	P Rural + Leading	Interm + Lagging	P Rural + Lagging	Interm + Lagging	P Rural + Lagging	Interm + Leading
LFA %	96.85	100.00	12.48	.00	77.47	90.41	92.60	100.00
Cluster Type	Agricult . Peripher .	Agricult . Peripher .	Mesoac cessible	Core Farming	Agricult . Tourism	Southern Lagging	Northern Mixed	Diversif. Farming
Population density (1999)	24.00	8.90	80.50	69.30	44.80	59.50	25.60	45.20
Meso <sup>64</sup> Accessible	345.57	387.17	300.87	287.33	360.58	390.83	357.74	321.54
Macro Accessible	1754.20	1802.88	1405.18	1026.43	3551.32	2707.53	2269.59	2117.56
Population (1999)	343500	91.30	541.00	566.00	96.60	21.20	366.30	556.00
Population change, 1989-99	-5.68	-6.93	6.62	1.58	-4.64	.95	6.30	4.41
Unemployment rate (2001)	7.90	4.60	6.50	8.30	-	-	4.00	3.80
Unemployment change, 1998-01	-51.23	-45.88	-24.42	-24.55	-	-	-39.39	-51.90
GDP 2000h <sup>65</sup>	20996.6	18085.8	18670.9	23916.5	15952.0	13056.4	18943.9	28970.5
GDP, 1995-00	30.57	24.65	25.85	25.43	37.07	61.81	53.88	68.49

<sup>62</sup> The NUTS3 region 'West' in Ireland includes the NUTS4 Counties of Galway City, Galway County, Mayo and Roscommon and the NUTS3 region 'South West' includes Cork City, Cork County and Kerry.

<sup>63</sup> OECD TYPE: *Variable RUPERFTYPE* (Data for U-I-R type and Lead/lag type allocated from OECD to full list of NUTS III regions. Final column gives code for combined typology): 1=Predominantly Rural + Leading, 2=Predominantly Rural +Lagging, 3= I+Leading, 4=I+Lagging, 5=PU+Leading, 6=PU+Lagging [Source: OECD Typology Data (Excel), *Espon 2.1.3. Website: www.sac.ac.uk/espon*]

<sup>64</sup> Meso accessibility time to market by rail and road, half-life, weighted by GDP (1997): TMGDP25TT (*P\_2\_1\_1\_Timetomarket\_Accessibility\_by\_rail\_road\_N3*) (*Espon Database Version 2\_3*). In the case of accessibility indicator on *meso* scale, the intensity of spatial interaction is halved every 25 minutes of travel time to market (ESPON project 2.1.1). In the case of accessibility indicator on *macro* scale, the intensity of spatial interaction is halved every 1000 minutes of travel time to market (ESPON project 2.1.1).

<sup>65</sup> GDP/head (2000): Eurostat – REGIO, GDP00PH, Calculation algorithm: GDP in MIO PPS / inhabitants \*1000000 (*P\_3\_1\_GDP\_95\_00\_N3*) (*Espon Database Version 2\_3*), Gross Domestic Product 2000 Purchasing Power Standards per inhabitant

COUNTRY	<i>Spain</i>	<i>Spain</i>	<i>France</i>	<i>France</i>	<i>Greece</i>	<i>Greece</i>	<i>Ireland</i>	<i>Ireland</i>
% Employed in agriculture (1995)	11.4625	16.2577	9.2228	9.6197	-	-	20.9044	14.3464
% Employed in agriculture change , 1988-1995	-30.25	-41.15	-34.51	-14.56	-	-	-31.22	-31.74
Farm Size, 1999 <sup>66</sup>	13.48	13.48	41.94	76.58	4.33	6.08	19.69	19.69
% non irrigated	65.8700	74.7591	26.4312	83.9554	-	.8547	.3723	9.4481
% irrigated arable	5.43	3.69	0.00	0.00	-	0.00	0.00	0.00
% rice	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00
% vineyards	0.16	0.11	0.19	3.70	-	3.37	0.00	0.00
% fruit trees	0.22	0.00	0.05	0.00	-	0.69	0.00	0.00
% olive groves	0.00	0.00	0.00	0.00	-	31.84	0.00	0.00
% pastures	0.86	1.02	19.62	3.07	-	0.00	81.47	84.82
% annual crops	0.00	0.01	0.00	0.00	-	0.00	0.00	0.00
% complex cultivation pattern	7.78	3.73	46.51	4.08	-	10.63	2.34	1.80
% nat. vegetation	19.68	16.68	7.19	5.19	-	52.62	15.82	3.93
% farmers over 65 years old (1997)	21.42	21.42	15.13	11.08	46.96	47.39	21.89	21.89
% farmers over 65 (1995-97)	-0.05	-0.05	12.07	-6.34	14.17	9.04	3.01	3.01
No. Hotels (2000)	234	114	208	124	126	66	973	1311
Hotels change (1995-2000)	84.25	96.55	-3.70	-7.46	0.00	50		
No. of farms	20065	8150	10373	14800	16042	3606	32633	22749
ERS farmers	186	26	1867	156	142	94	408	1107
ERS Rate	0.93	0.32	18.00	1.05	0.89	2.61	1.25	4.87
Pillar1, ha 1999 <sup>67</sup>	42.20	41.53	97.00	59.39	39.28	61.83	50.14	67.96
Pillar2, ha 1999 <sup>68</sup>	0.00	0.00	0.34	0.15	0.00	0.10	4.43	4.43

*Data Source: Eurostat – REGIO, Corine Land Cover Database, FADN Database, ESPON Database*

<sup>66</sup> Average farm size 1999: Derived by the ESPON project 2.1.3 from FADN Database

<sup>67</sup> Defined as the sum of MPS and direct income payments and estimated by ESPON Project 2.1.3

<sup>68</sup> Derived by ESPON project 2.1.3 from the FADN Database and comprised LFA payments, agri-environmental schemes and other RD measures.

**Table 0.13: Regional Typologies**

<i>Population Density Types</i>	<i>Mean Rate</i>	<i>ERS</i>	<i>No. of Regions</i>	<i>Std. Deviation</i>
Less than 25 inh/km2	1.92		20	1.89
25-50 inh/km2	2.77		17	2.30
50-100 inh/km2	5.14		18	4.63
100-150 inh/km2	5.36		7	4.11
More than 150 inh/km2	5.87		3	6.59
Total Population Density	3.59		65	3.46
<i>LFA Types of Regions</i>	<i>Mean Rate</i>	<i>ERS</i>	<i>No. of Regions</i>	<i>Std. Deviation</i>
Less than 25%	8.51		14	4.38
25%-50%	4.73		6	2.12
50%-75%	2.26		4	1.78
75%-100%	1.76		23	2.18
Total LFA Percentage	4.19		47	4.17
<i>OECD Types of Regions</i>	<i>Mean Rate</i>	<i>ERS</i>	<i>No. of Regions</i>	<i>Std. Deviation</i>
P Rural + Leading	5.38		9	5.64
P Rural + Lagging	3.26		33	3.03
Intermediate + Leading	6.24		5	5.12
Intermediate + Lagging	2.44		17	2.78
P Urban + Leading	4.58		1	-
P Urban + Lagging	-		-	-
Total OECD Type	3.59		65	3.69
<i>Cluster Types of Regions</i>	<i>Mean Rate</i>	<i>ERS</i>	<i>No. of Regions</i>	<i>Std. Deviation</i>
Agricultural Peripheral	0.49		9	0.25
Northern Mixed Economy	3.70		9	1.51
Vinecultural	2.61		4	0.99
Agricultural Tourism	1.77		5	2.13
Core Farming	2.28		2	1.73
Southern Lagging	0.96		4	1.19
Diversified Farming	4.87		1	-
Meso Accessible	9.74		13	3.40
Total Cluster Types	4.19		47	4.17

Data Source: Eurostat – REGIO

## **Part III: Annexes**

### **1 List of Indicators Developed and Datasets Provided to the ESPON Database**

#### Core Indicators

Utilisable Agricultural Area (UUA) as a percentage of total land area, NUTS3, (2000)

Percentage of farm holders under the age of 35 years, NUTS2 (1997, 1995, 1993, 1990)

Percentage of farm holders over the age of 65 years, NUTS2 (1997, 1995, 1993, 1990)

Agricultural output per hectare, NUTS2 (Annual 1990-1997)

Agricultural output per AWU, NUTS2 (Annual 1990-1997)

Percentage value added by agriculture, forestry and fishing, NUTS3, (Annual, 1995-2000)

Value of fertiliser input per hectare of arable land, NUTS2 (Annual, 1990-2001)

#### Other Indicators

Arable as a percentage of Utilisable Agricultural Area, NUTS2, (Annual 1974-2001)

AWU per 1000 hectares, NUTS2, (Biennial 1990-1997)

AWU per holding, NUTS2, (Biennial 1990-1997)

Percentage change in the number of holders, NUTS2, (1990-1997)

Percentage change in the number of old farmers, NUTS2, (1990-1997)

Percentage change in the number of young farmers, NUTS2, (1990-1997)

Per cent employed in agriculture forestry and fishing, NUTS3, (Annual, 1988-1997)

Fallow as a percentage of Utilisable Agricultural Area, NUTS2, (Annual, 1995-2001)

FNVA per AWU, NUTS2, (Biennial 1990-1997)

FNVA per hectare of Utilisable Agricultural Area, NUTS2, (Annual, 1990-2001)

LFA land as a percentage of Utilisable Agricultural Area, NUTS2, (Biennial 1990-1997)

Livestock Units per holding, NUTS2, (Biennial 1990-1997)

Permanent crops as a percentage of Utilisable Agricultural Area, NUTS2, (Annual, 1974-2001)

Permanent grass as a percentage of Utilisable Agricultural Area, NUTS2, (Annual, 1974-2001)

Standard Gross Margin per Agricultural Work Unit, NUTS2, (Biennial, 1990-1997)

Total agricultural subsidies per hectare of Utilisable Agricultural Area, NUTS3, (1990, 1999)

Total agricultural subsidies per hectare of Agricultural Work Unit, NUTS3, (1990, 1999)

Utilisable Agricultural Area as a percentage of total area, NUTS2, (Annual, 1974-2001)

Hectares of Utilisable Agricultural Area per holding, NUTS2, (Annual, 1990-1997)



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### **3 List of Missing Data**

Environmental Quality (DAEUINPT/DAEUINPTV2)

LEADER LAG areas (LDEC1MV1)

Structural Fund designations (SFEC3MV1/ SFEC1MV2-5)

Local accessibility (derived from commuting patterns)

## 4 List of Abbreviations and Glossary

ACP	African Caribbean Pacific
ACs	Accession Countries
AEP	Agri-environmental programme
Agenda 21	A comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment
AgraCEAS Consulting	Specialist agri-food consultancy that has carried out numerous studies since its establishment in Brussels in 1973, helping both public and commercial sector clients to analyse, assess, evaluate and implement policies and business strategies specifically in the fields of agriculture, food and drink, rural development and environment
ANOVA	Analysis of variance
ARMA	Agency for Reconstruction and Modernisation of Agriculture
AsPIRE	Aspatial Peripherality, Innovation and the Rural Economy: a comparative research project involving partners in Greece, Scotland, Spain, Ireland, Germany and Finland
AWU	Agricultural Work Unit
BMLFUW	Bundesanstalt für Bergbauernfragen (Federal Institute for Less-Favoured and Mountainous Areas), Austria
CAD	contrat d'agriculture durable
CAP	Common Agricultural Policy
CAPMAT	CAP Modelling and Accounting Tool
CAPRI	Common Agricultural Policy Regional Impact model
CAPSIM model	Partial equilibrium-modelling tool with behavioural functions for activity levels, input demand, consumer demand and processing
CAP-STRAT	Common Agricultural Policy Strategy for Regions, Agriculture and Trade (QLTR-200-00394)
CEBs	County Enterprise Boards

CEEC	Central and Eastern European Country
CI	Community Initiatives
CORINE land use data	Provides a pan-European inventory of biophysical land cover, using a 44 class nomenclature
CPB	Centre for Economic Policy Analysis in The Hague
CTE	Contrats territorial d'exploitation
CWFS	Centre of World Food Studies in Amsterdam
DHI	Disposable Household Income
DORA	Dynamics of Rural Areas
DPs	Direct Payments
EAGGF	European Agricultural Guidance and Guarantee Fund
EEA	European Environment Agency
EFTA	European Fair Trade Association
EQUAL	One of the Community Initiative Programmes, designed to promote equal opportunities under five headings: employability, entrepreneurship, adaptability, equal opportunities for men and women and asylum seekers
ERDF	European Regional Development Fund
ERS	Farmers' Early Retirement Scheme
ESDP	European Spatial Development Perspective
ESIM	European Simulation Model
ESPON	European Spatial Planning Observation Network
ESUs	European Size Units
EU	European Union
EU-15	$\Sigma$ "old" member states
EU-25	$\Sigma$ EU-15 + N10
EU27	$\Sigma$ EU-15 + N12
EU27+2	$\Sigma$ EU27 + CH, NO
EUROFARM	A database containing data in the form of standard tables from the Farm Structure Survey
FADN	Farm Accountancy Data Network
FAIR	Fourth Framework specific RTD programme "Agriculture and Fisheries"
FAO	Food and Agriculture Organization of the United Nations
FAPRI	Food and Agricultural Policy Research Institute

FAPRI	Food and Agricultural Policy Research Institute
FDI	Foreign Direct Investment
FEOGA	Fonds Européen d'Orientation et de Garantie Agricole or Guidance Section of the Community's Agriculture Fund
FIFG	Financial Fund for Fisheries Guidance
FIR	First Interim Report
FNVA	Farm Net Value Added
FR	Final Report
FUA	Functional Urban Area
GAO	General Accounting Office
GDP	Gross Domestic Product
GFP	Good farming practice
GHG	Greenhouse Gases
GISCO	Geographical Information System for the Commission: the database attempts to cover the common interest of the European Commission services in spatial data
GTAP AGE model	Applied General Equilibrium model
GVA index	Gross Value Added index
HBS	Household Budget Survey
HNV	High nature value
I.V.D.	Indemnité Viagère de Départ
IDARA	Integrated Development of Agriculture and Rural Areas in CEE countries
INEA	Istituto Nazionale di Economia Agraria
INTERREG III	Community initiative which aims to stimulate interregional cooperation in the EU between 2000-06. It is financed under the European Regional Development Fund (ERDF)
ISDEMA project	Innovative Structures for the Sustainable Development of Mountainous Areas
ISPA	Instrument for Structural Policies for Pre-Accession
LAGs	Local Action Groups
LEADER	Liaisons Entre Actions de Développement de l'Economie Rurale
LFA	Less Favoured Area
LIFE	The Financial Instrument for the Environment, introduced in 1992; one of the spearheads of the European Union's environmental policy
LTP	Long-Term Perspective
MGP	Matera Guidance Paper

MPS	Market price support
MS	Member States: Austria (A), Belgium (B), Denmark (DK), Finland (FIN), France (F), Germany (DE), Greece (GR), Ireland (IRL), Italy (I), Luxembourg (L), Portugal (P), Spain (E), Sweden (S), The Netherlands (NL), United Kingdom (UK)
MTR	Mid Term Review
N10	Σ 10 new member States (CY, CZ, EE, HU, LT, LV, MT, PL, SI, SK)
N12	Σ N10 + BG, RO
NACARD	National Agricultural Advisory Centres
NATURA 2000	Network for the in situ management and conservation of Europe's most remarkable fauna and flora species and habitats, supported by LIFE
NFS	National Farm Survey
NMS	New Member State. The new members states are: Cyprus (CY), Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Malta (MT), Poland (PL), Slovakia (SK), Slovenia (SI). Candidate countries: Bulgaria (BG), Romania (RO). Others: Norway (NO), Switzerland (CH)
NUTS	Nomenclature des Unités Territoriales Statistiques, or Nomenclature of Territorial Units for Statistics
NVA	Net Value Added
Objective 1	Objective 1 of the Structural Funds is the main priority of the European Union's cohesion policy. In accordance with the treaty, the Union works to "promote harmonious development" and aims particularly to "narrow the gap between the development levels of the various regions".
Objective 2	Objective 2 of the Structural Funds aims to revitalise all areas facing structural difficulties, whether industrial, rural, urban or dependent on fisheries
OECD	Organisation for Economic Co-operation and Development
PHARE	The Phare programme is one of the three pre-accession instruments financed by the European Union to assist the applicant countries of Central and Eastern Europe



	in their preparations for joining the European Union
POMO and POMO+,	The rural programme for local initiative <b>POMO</b> is an instrument for the development of rural areas and the archipelago through planning and implementing, in line with the LEADER programme, local strategies and measures coming from the grass roots level. The objective is to create new lines of operation in the rural areas and promote local initiatives
Post-MTR/SFP	Post Mid term review/Single Fram Payment
PRIDE	People and Resources Identification for Distributed Environments: The PRIDE project intended to develop a broker service to support the identification and delivery of information services over the Global Information Infrastructure
PRODER	Programa Operativo de Desarrollo y Diversificación Económica de Zonas Rurales. <b>PRODER</b> is a set of programs for the rural development that apply measures of endogenous development and which they have been implemented exclusively in Spain
Project QLK5-2000-00783	AsPIRE
PSE	Producer Support Estimate
PSE/CSE data base (OECD)	Producer Support estimate/ consumer support estimate data base (produced by the OECD)
RDP	Rural Development Policy
RDR	Rural Development Regulation
REGIO	Eurostat's Regional Statistics database
REPS	Rural Environmental Protection Scheme
RESTRIM	Restructuring in Marginal Areas
RUREMPLO	Acronym of the FAIR (CT96 1766) project 'Agriculture and employment in the rural regions of the EU'. In the <b>RUREMPLO</b> project an analysis is made of the development of employment in the rural regions of the EU against the background of a downward trend in the agricultural labour force.
SAPARD	Special Action for Pre-Accession measures for Agriculture and Rural Development

SFP	Single Farm Payment
SIR	Second Interim Report
SME	Small or medium size enterprise
SMEs	Small and medium-scale enterprises
SPESP	Study Programme on European Spatial Planning
SPP	Special Preparatory Programme
STREP	Specific Targeted Research Project
SWOT analysis	SWOT Analysis identifies Strengths and Weaknesses, and allows examination of the Opportunities and Threats you face
Teagasc	The Agricultural Research and Advisory Authority
TENs	Trans European Networks
TIA	Territorial Impact Assessment
TIR	Third Interim Report
TPG	Transnational Project Group
UAA	Utilisable Agricultural Area
VAT	Value Added Tax
WATSIM	World Agricultural Trade Simulation Model: a recursive-dynamic, spatial world trade model for agricultural commodities
WTO	World Trade Organization

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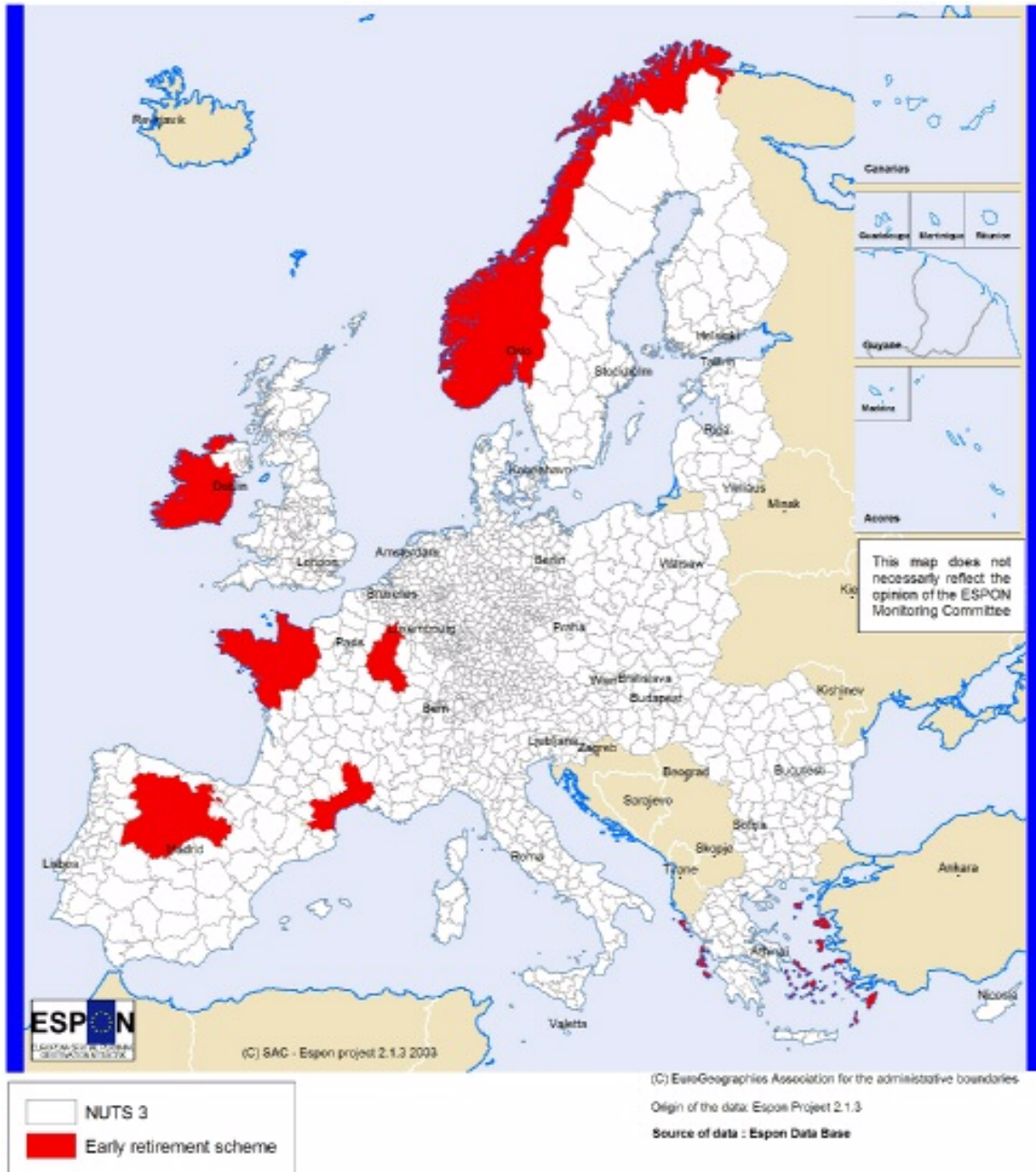


## **6 Additional maps not included in the core text of the Report**

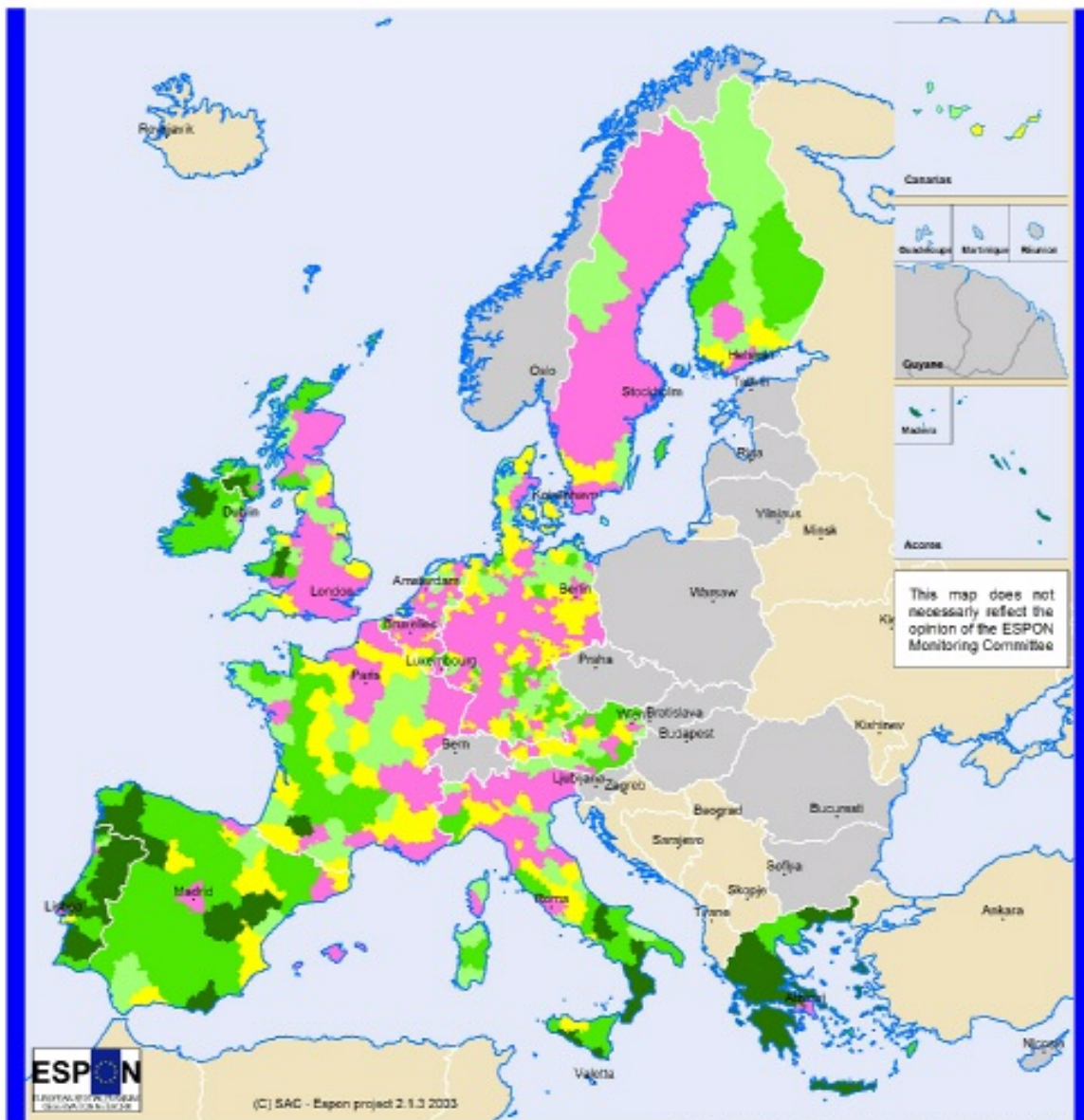
### **6.1 List of additional maps**

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**Additional Map 6.1: Early Retirement Scheme**



**Additional Map 6.2: Percentage employed in agriculture, forestry and fishing, 1995/96**



**% of workforce**

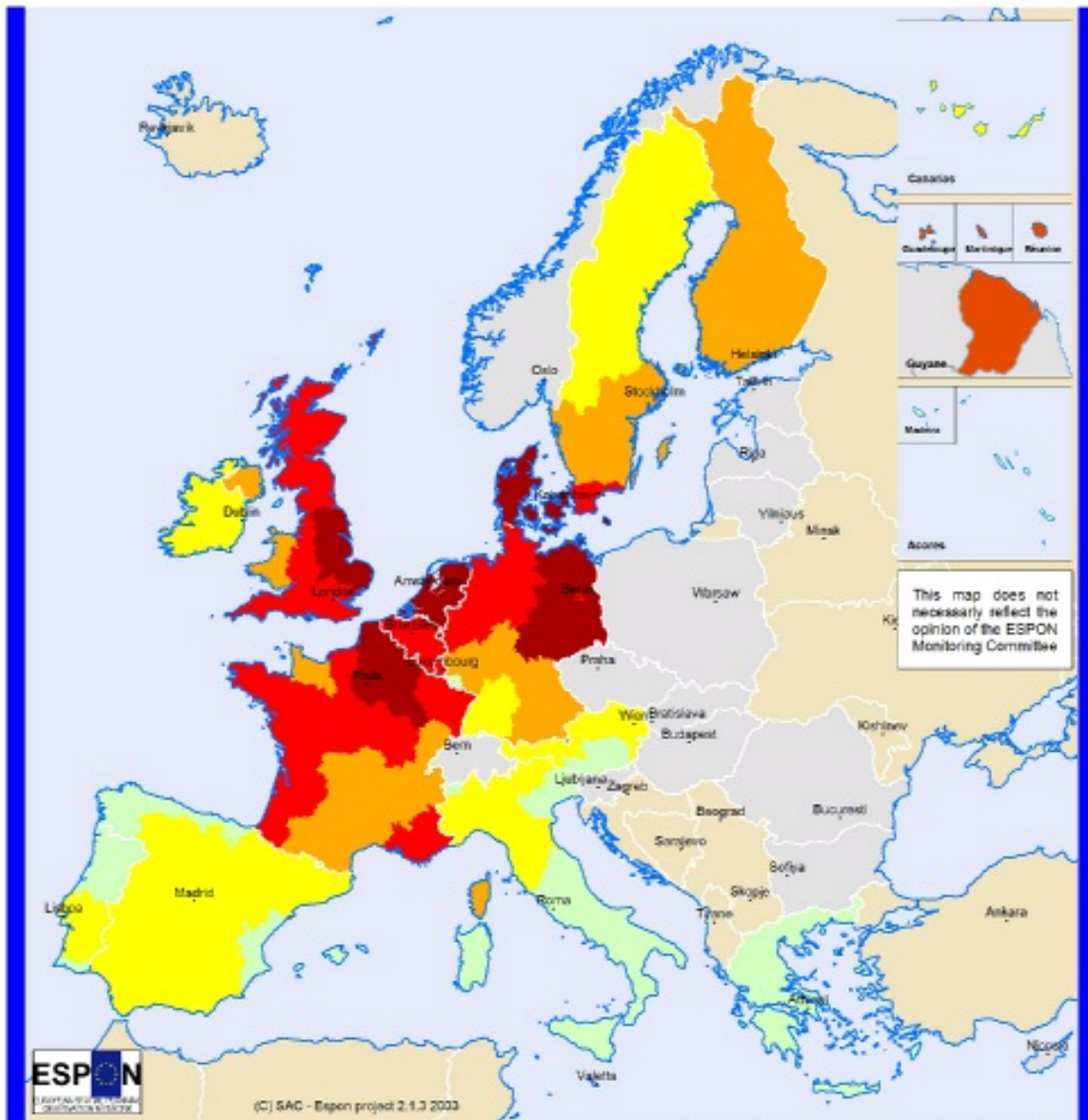
- More than 20
- 10 to 20
- 7.5 to 10
- 5 to 7.5
- 0 to 5
- No data

(C) EuroGeographics Association for the administrative boundaries

Origin of the data: Eurostat Regio Database

Source of data : Espo Data Base

**Additional Map 6.3: Average size of holding in ESU, 1997**



**ESU per holding**

- More than 50
- 30 to 50
- 20 to 30
- 10 to 20
- Less than 10
- No data

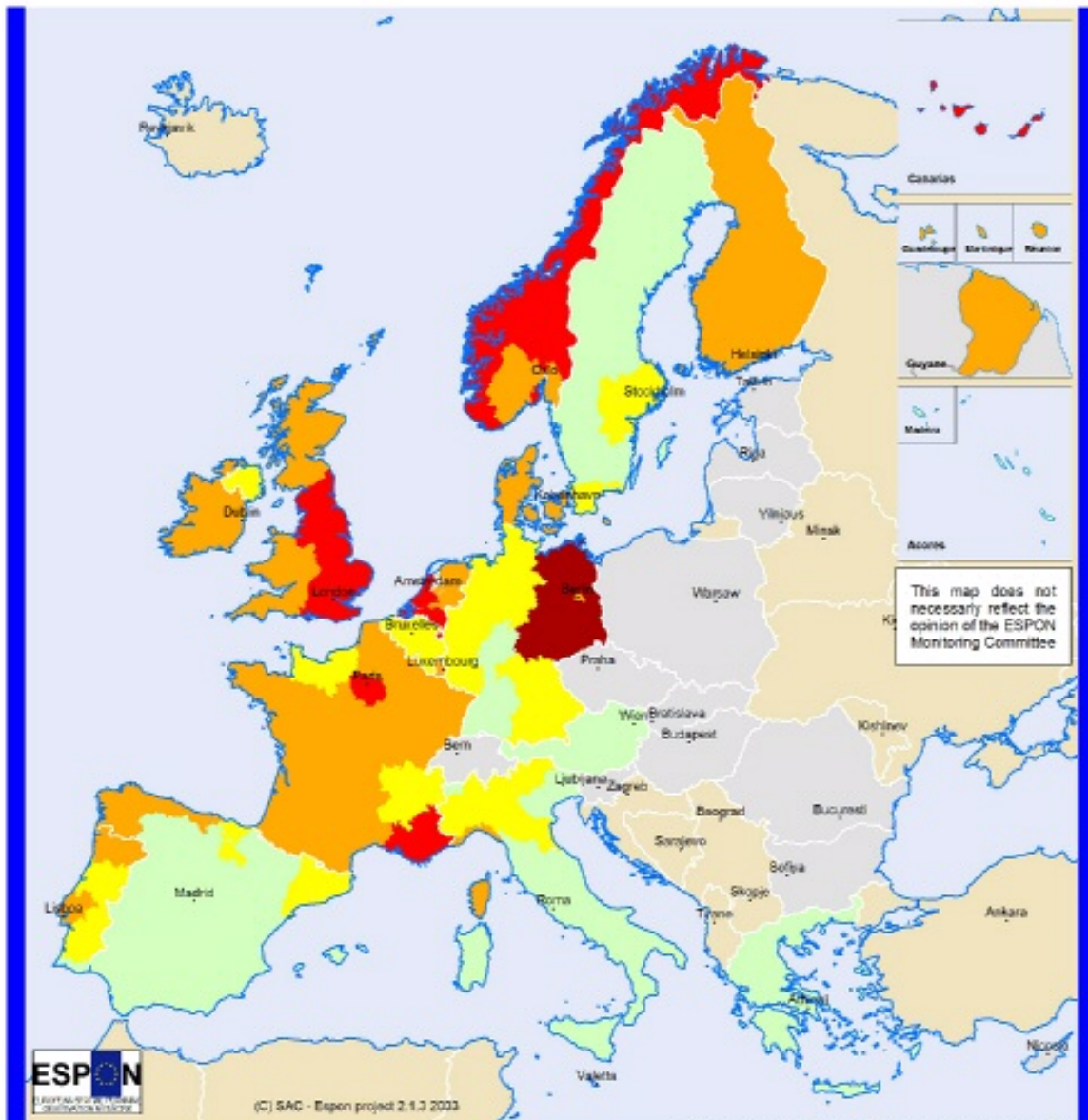
(C) EuroGeographics Association for the administrative boundaries.

Origin of the data: Eurostat Regio Database

Source of data : Espen Data Base



**Additional Map 6.4: AWU per holding, 1997**



**AWU per holding 1997**

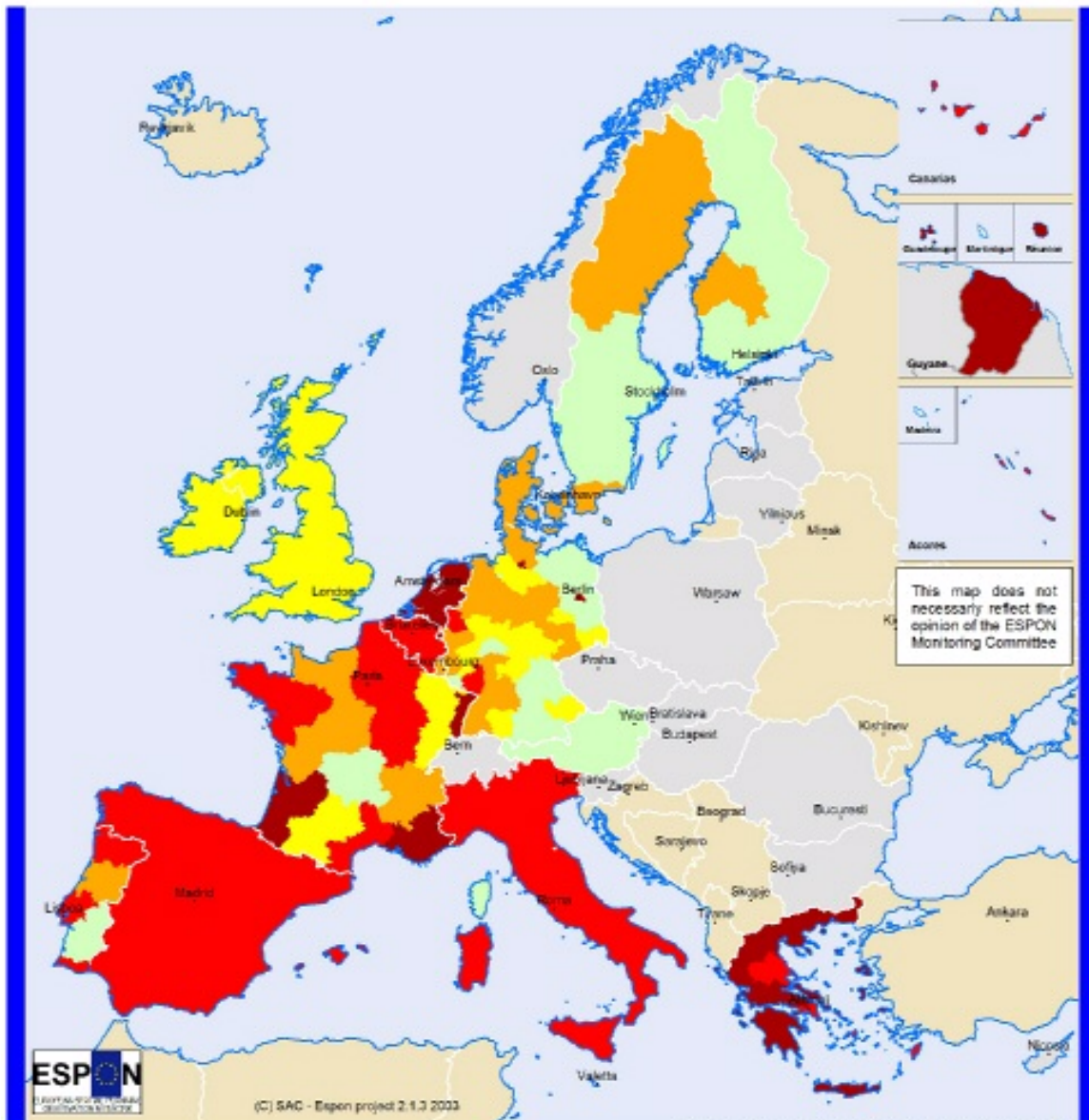
- More than 3
- 1.75 to 3
- 1.25 to 1.75
- 1 to 1.25
- Less than 1
- No data

(C) EuroGeographics Association for the administrative boundaries.

Origin of the data: Eurostat Regio Database

Source of data : Espen Data Base

**Additional Map 6.5: FNVA per hectare UAA, 1997**

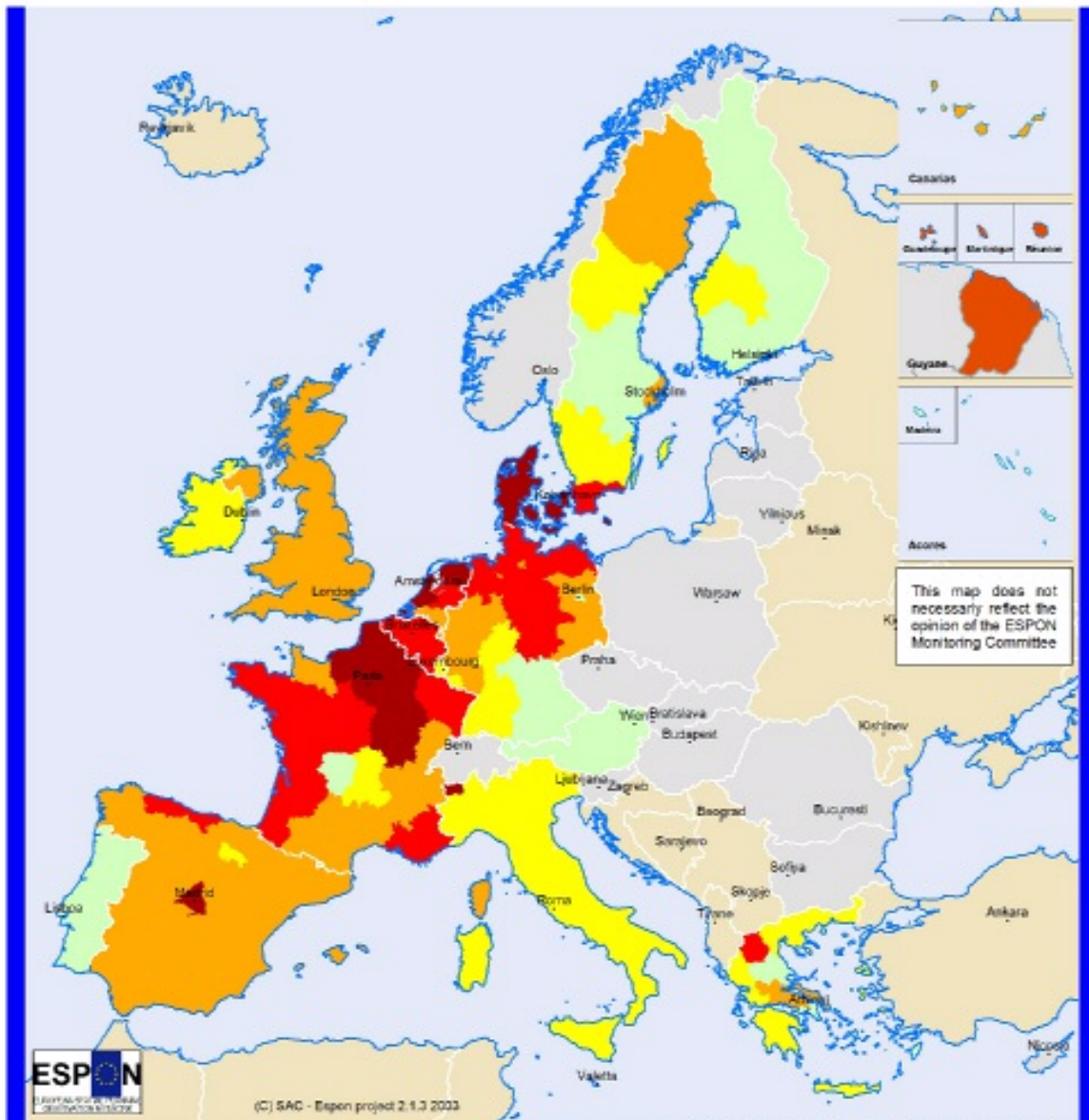


**Euros per ha, 1997**

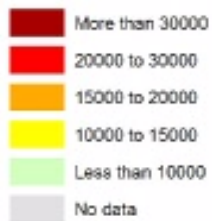


(C) EuroGeographics Association for the administrative boundaries.  
 Origin of the data: Eurostat Regio Database  
 Source of data : Espen Data Base

**Additional Map 6.6: FNVA per AWU, 1997**



**Euros per AWU, 1997**



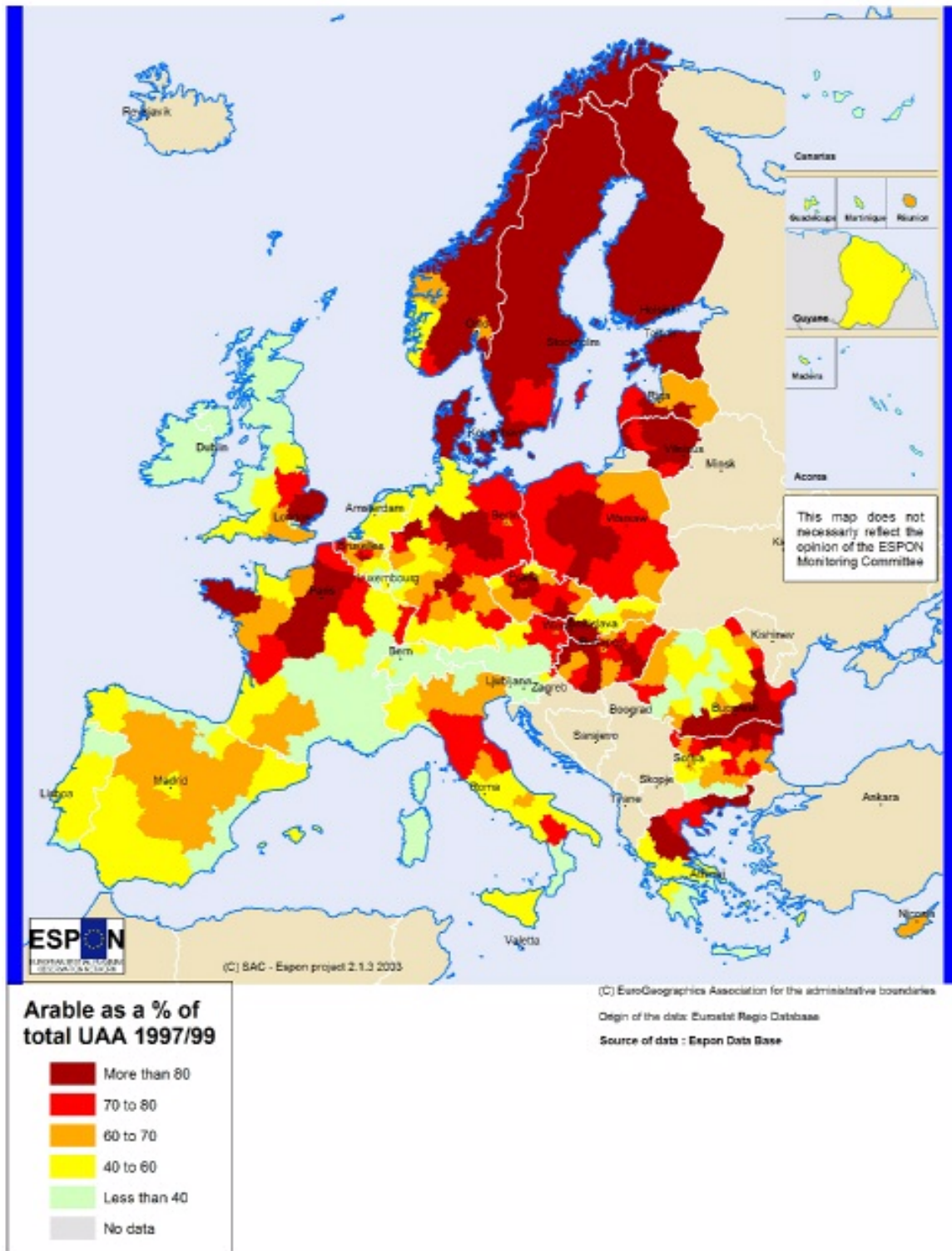
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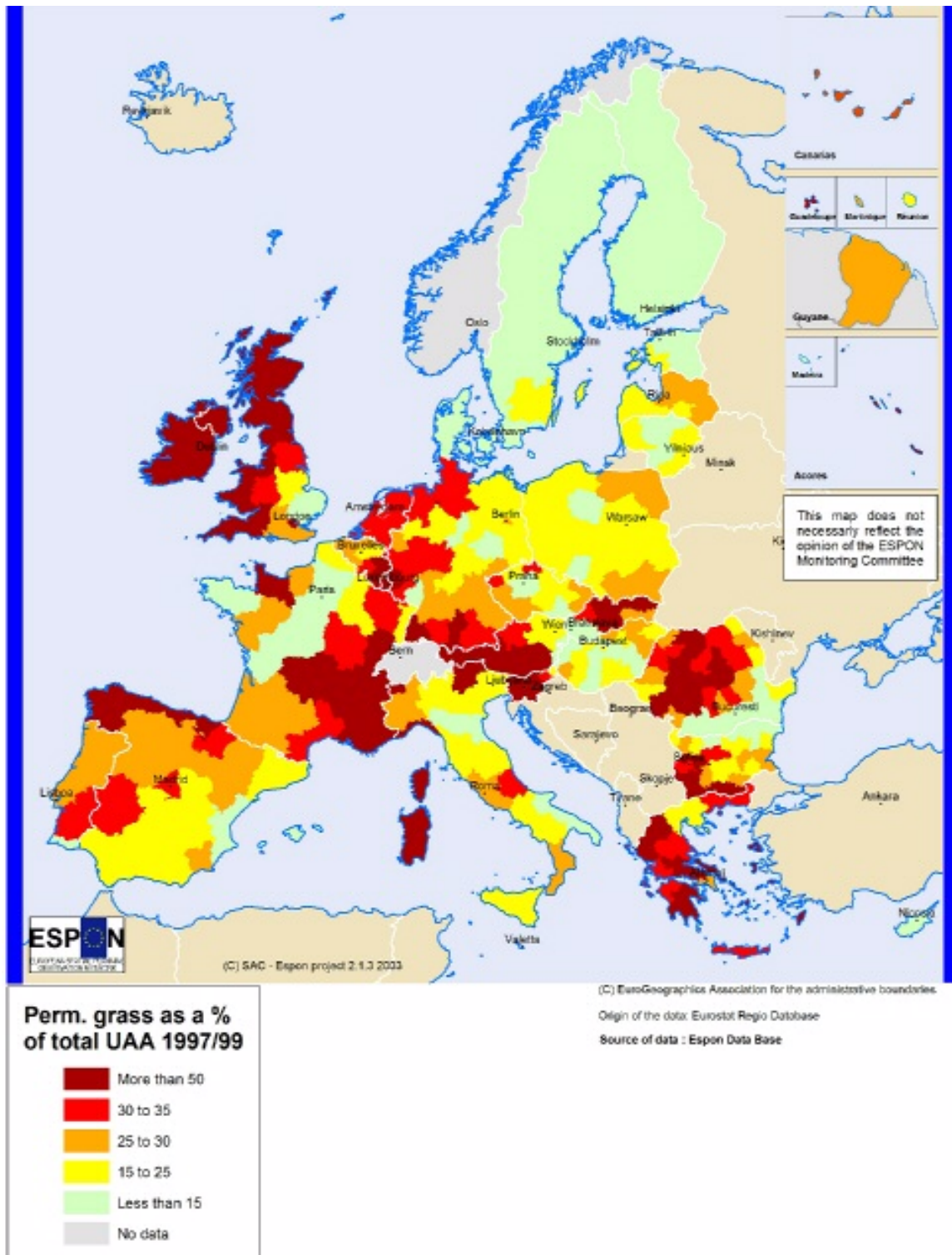


**Additional Map 6.7: Arable as a percentage of total UAA, 1997-99**

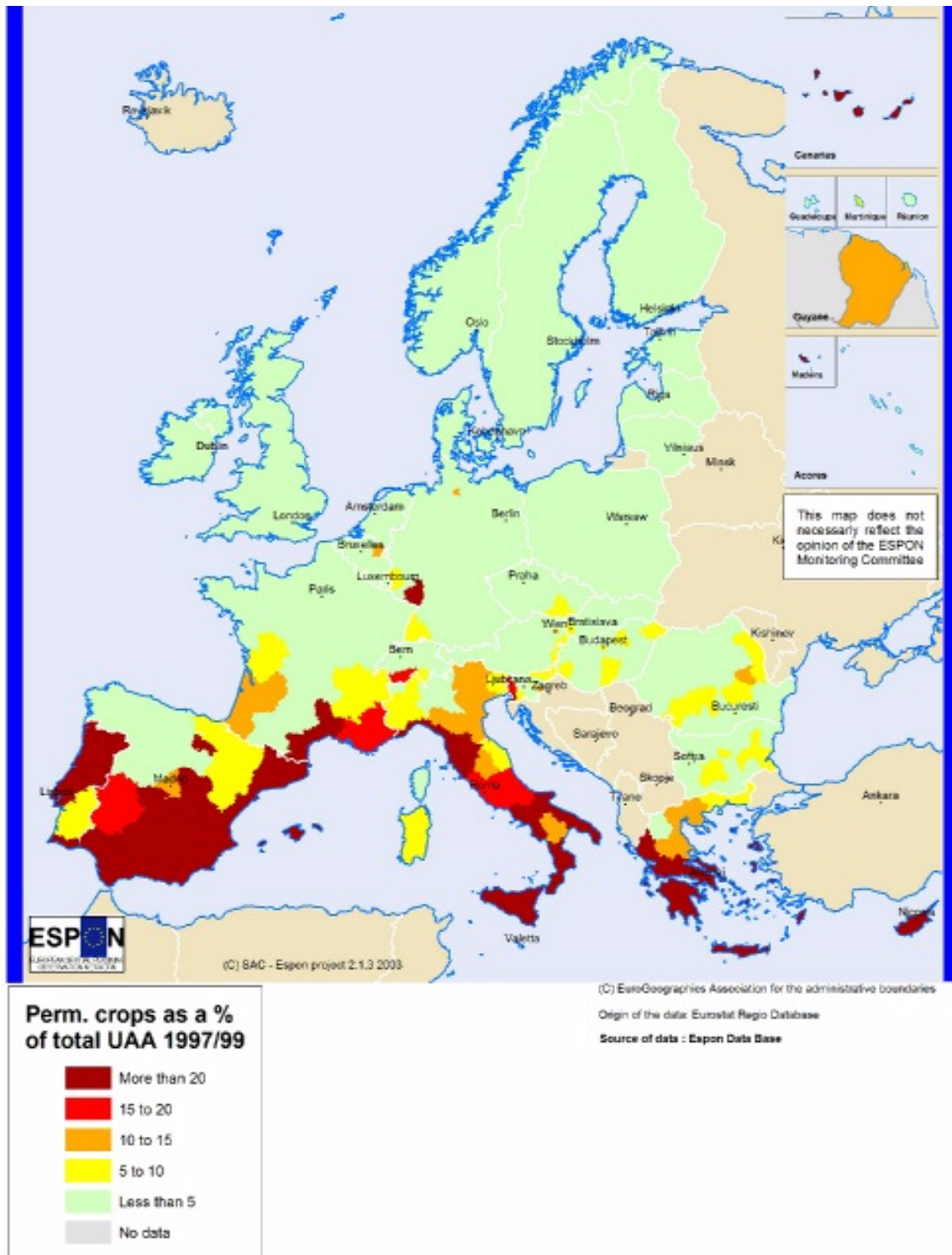




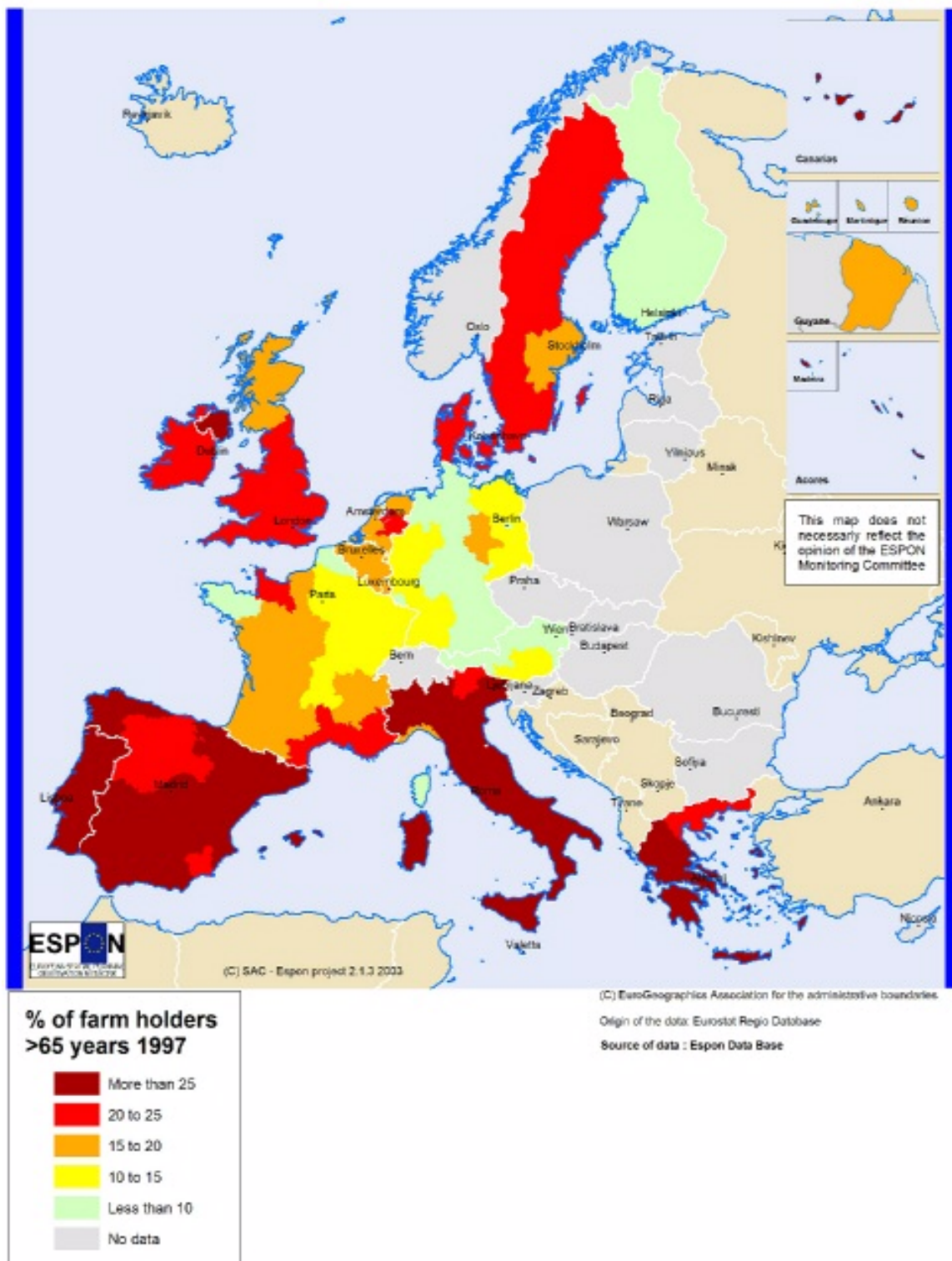
**Additional Map 6.8: Permanent grass as a percentage of total UAA, 1997-99**



**Additional Map 6.9: Permanent crops as a percentage of total UAA, 1997-99**

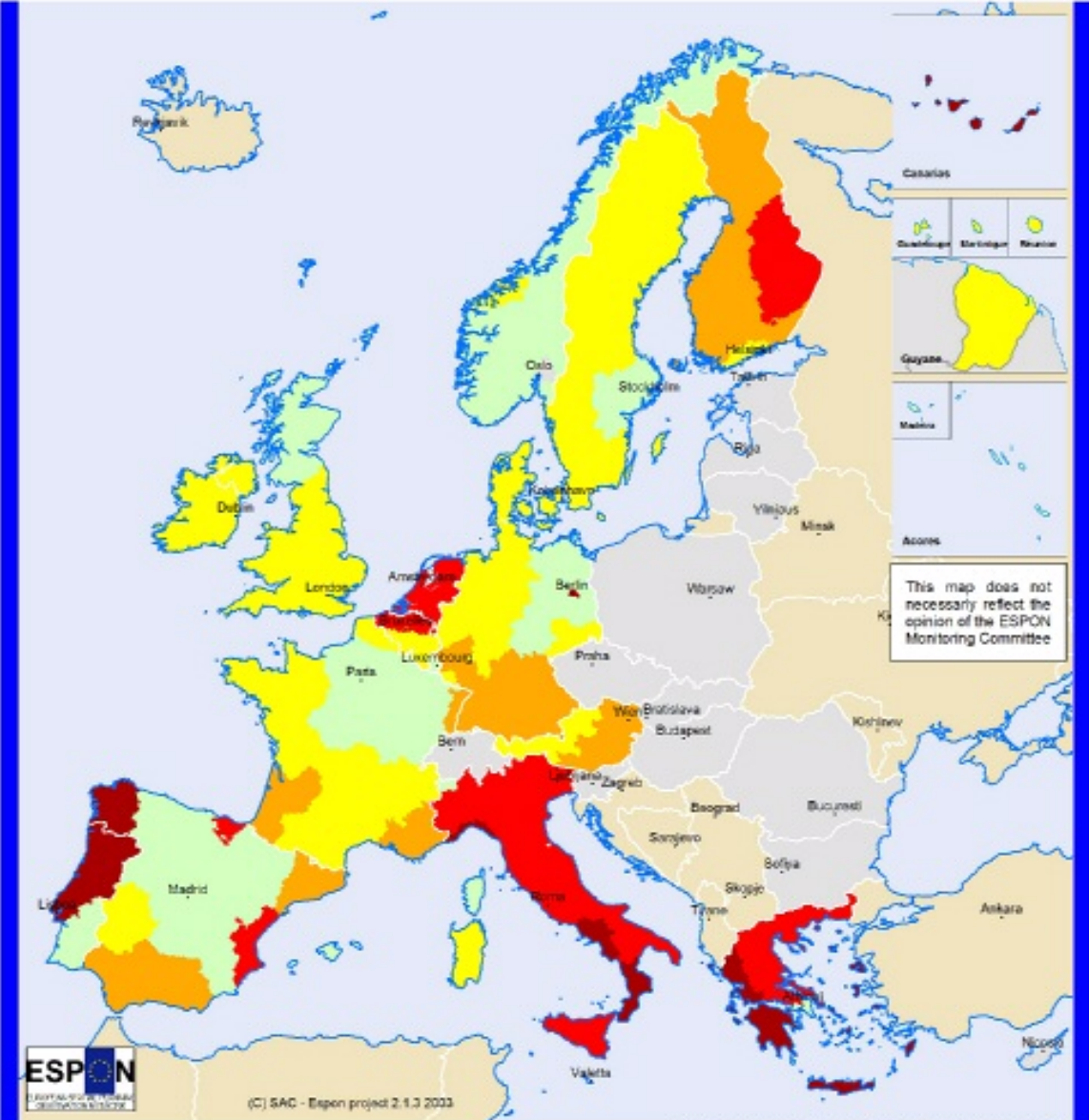


**Additional Map 6.10: Percentage of farm holders aged >65, 1997**





**Additional Map 6.11: AWU per 1000 hectares of UAA, 1997**



(C) SAC - Espen project 2.1.3 2003

(C) EuroGeographics Association for the administrative boundaries.

Origin of the data: Eurostat Regio Database

Source of data : Espen Data Base

**AWU per 1,000 ha, 1997**

- More than 150
- 75 to 150
- 50 to 75
- 25 to 50
- Less than 25
- No data

## 7 Number of performance indicators achieved

Each TPG has been obliged to complete the following table. Since we have been given no consistent definition of the terms used in the Table, we have used footnotes to clarify our interpretation of these terms.

Number of spatial indicators <sup>69</sup> employed in addition to priority 1:	
- in total	80
covering	
- the EU territory <sup>70</sup>	80
- more than the EU territory	0
Number of spatial indicators <sup>1</sup> applied:	
- in total	80
covering	
- the EU territory <sup>2</sup>	80
- more than the EU territory	0
Number of EU maps produced	27
Number of sector policies <sup>71</sup> fully addressed	All of the CAP
Number of charts on the institutional structure of sector policies	2
Number of ESDP policy aims mentioned in the ESDP reference made to by sector study	All

<sup>69</sup> This is taken to mean the number of variables employed in spatial analysis.

<sup>70</sup> Taken to include Norway and Switzerland where available

<sup>71</sup> TPG 2.1.3 has fully addressed all elements of the CAP, as required by the terms of reference.

