



**TWG2: Linkages between Agriculture and the wider rural
economy**

Final Report

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Connecting Rural Europe

THEMATIC WORKING GROUP No 2

LINKAGES BETWEEN AGRICULTURE AND THE WIDER RURAL ECONOMY

Thematic Working Group (TWG) started its activity in March 2009.

The activities of the working group have aimed at identifying and describing the relationships and potential synergies and/or conflicts between agriculture and the rural economy in various types of EU rural areas. This work has involved:

- developing a better understanding of the economic relationships between agriculture and rural economy at the local level, including the multifunctional contribution of agriculture;
- identifying the key factors that determine the potential of regions and localities – economic, human resource, natural endowment, competition over resources – and classifying those where policy support can be most effective;
- screening policy programmes at national, regional and local level in order to assess their coherence and consistency regarding agriculture and rural development;
- assessing the contribution of current policies and institutional arrangements to successful outcomes – positive aspects, difficulties and obstacles;
- presenting the main findings that could be relevant for the development of current and future policy on agriculture and rural development.

The focus is on the current programming period (2007-2013), while taking account of relevant previous programming experience. Primary attention is given to EU Rural Development support (EAFRD) nevertheless the significance of other EU funded programmes, national, regional and local programmes and other private funding sources is also taken into account.

The activity of the group was undertaken in 4 steps.

Step 1 involved the *selection of a set of 18 NUTS3 level rural areas* from across the EU, designed to ensure as representative and comprehensive as possible coverage of various types of rural areas, including those with various levels of agricultural activity and development, as well as differences in location, geography and economic development.

Step 2 involved a study of *how agriculture contributes to the way rural economies work* through three separate, but coordinated, activities: comparisons of the available economic and social data on structures and trends for the selected NUTS3 regions; input-output analyses of the relationship between agriculture and other sectors within the local regions; the collection of more qualitative data about such factors as the nature and capacity of the regions under analysis through questionnaire-based surveys undertaken by national experts.

Steps 3 and 4 involved an in-depth investigation of six of the 18 selected regions, particularly focused on the importance of the impact of various institutional and financial factors in enhancing or inhibiting the potential for local agriculture to assist and support economic development in the region.

An important part of this phase of the analysis has been the identification of relevant projects (when possible from the current programming period) that can demonstrate the synergies achieved between agriculture and the wider rural economy and how current RDP measures (and possibly other funding sources) have been able to promote and enhance such linkages. The case studies have been used to

support the recommendations made in the final report and also to form part of the "EN RD project Database".

Abbreviations and Acronyms

CAP	Common Agricultural Policy
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EERP	European Economic Recovery Package
ENRD	European Network for Rural Development
ERDF	European Regional Development Fund
EU	European Union
GDP	Gross Domestic Product
GVA	Gross Value Added
HC	Health Check
IDS	Integrated Development Strategy
I/O	Input/Output
MS	Member State
NGO	Non Governmental Organisation
NUTS	Common classification of territorial units for statistics
NRN	National Rural Network
OECD	Organisation for Economic Cooperation and Development
RDP	Rural Development Programme

Executive summary

The core of the remit of Thematic Working Group 2 (TWG2) is to identify and describe the relationships, and potential synergies/conflicts, between agriculture and the wider rural economy in various types of European Union (EU) rural areas.

Analytical activities have been undertaken in order to:

- provide a better understanding of the *relationship* between agriculture and rural economy at the local level;
- identify the *key factors* that determine the potential of different types of regions;
- assess the *contribution* of current policies and institutional arrangements to successful outcomes;
- present the *main findings* that could be relevant for the development of policy;
- consider what *further issues* warrant investigation or development.

This has principally involved a series of *in-depth analyses* in a selected group of NUTS3 (Common classification of territorial units for statistics) regions using a mixture of techniques: input-output analyses, general economic assessments, and case studies.

While there is increased discussion of diversification and the multifunctional contribution of agriculture, relatively little quantitative or qualitative empirical analysis has been undertaken concerning the *relationship between agriculture and rural development* at the local (NUTS3) level, which can be used in order to assess the likely impact and appropriateness of alternative actions¹.

In order to address its concerns, the TWG2 undertook *in-depth local level research* in 18² selected NUTS3 regions - the smallest geographical areas for which comparable EU-wide data is available for most of the key economic and social characteristics.

The input-output (I/O) analysis considered the economic relationship between agricultural activities and other sectors in the local economy, and the direct and indirect impact of changes in agricultural activity in terms of:

- backward linkages – the extent to which changes in output in the agriculture sector result in increased purchases from the rest of the local economy;
- forward linkages – the extent to which changes in output in the agricultural sector result in increased sales to the rest of the local economy.

The estimated effects of changes in agricultural output on suppliers (backward linkages) were found to be generally low or average, in line with estimates from other studies. In numerical terms, the typical coefficient is around 1.5 indicating that an increase in agricultural output of (indicatively) 1 million EUR will produce an additional output of 0.5 million EUR in other sectors in the local economy, due to the fact that local sectors provide inputs to agriculture.

¹ Although this deficiency is now being partially addressed through some research projects funded by the EC's Framework Research programmes.

² 18 regions were selected and initial analysis undertaken on all 18. Subsequently, due to non-availability of detailed and comparative statistical data, it was not possible to conduct certain further analyses in 1 region.

The effects on the local economy of sales of increased farm output to other sectors in the region (forward linkages) were found to be high in most areas, with a typical coefficient of around 2.5; this indicates that an increase in agricultural output of 1 million EUR will produce an additional output of 1.5 million EUR in the local economy.

In terms of forward linkages, agriculture was identified as a 'key sector' in 14 out of 18 regions studied, in the sense that increases in output in the sector result in above-average increases in output elsewhere in the region, compared with the average results for all sectors in the region. Agriculture has especially high forward linkages with food processing, hotels and catering and trade, all sectors that, in turn, have further high linkages with the rest of the rural economy.

The wider economic analysis also assessed how the performance of the selected regions was affected by:

- economic and agricultural development factors;
- human resources and entrepreneurial capacity;
- natural endowment – land, countryside;
- competition for resources between sectors.

A key determinant of the strength of the local rural economy was found to be the *capacity and timeframe required to respond to structural changes*. The challenges for the agricultural sector in many of the newer Member States (MS) and some older MS appear to be critical against a background of generally weak economic performance. Moreover, in terms of diversification within agriculture, many success stories tend to involve relatively small-scale niche markets, often linked to local tourism, which have a positive impact in the areas concerned, but which cannot replace large scale job losses in mainstream food production.

The *quality of human resources* - in other words, the levels of dynamism and business and entrepreneurial capacity - are seen to be among the most important factors determining the future of regions and local communities. Contrary to some beliefs, levels of education or age are not necessarily an obstacle. In fact, the populations of rural regions are not always older, on average, than those in other areas, although the loss of young people from rural areas is often a significant factor in decline.

The richness of the *natural resource base and infrastructure* is fundamental factor influencing the ability of a region to react to economic and structural change, retain human capital and/or diversify economic activities. The peripherality of a region prevents accessibility and connection. More remote areas tend to have fewer opportunities for diversification outside of agriculture, with the exception of areas of high natural beauty, and closeness to larger urban centres influences the opportunities for a region to strengthen forward linkages for agricultural products and related services.

In terms of *competition for resources*, agriculture is the most significant user of rural land (averaging 40%) in all the regions studied. However, little evidence of conflict between alternative uses or demands upon the land was identified in the specific regions studied, even though conflicts over water, land, environment, energy, and other resources clearly exist in some regions. There is evidence though, that conflict over land use may be taking new forms, particularly in respect to forestry development and the development of renewable energy supplies.

In terms of synergy between agriculture and the wider rural economy, some 24 case studies of EU co-financed projects were identified and elaborated in order to document the experience of project developers. These indicate that:

- a wide range of projects is being developed and these create or promote linkages, in a variety of different policy and institutional situations;
- when policy incoherence is combined with unhelpful institutional arrangements, the costs can be high in terms of the additional efforts that have to be made by project promoters;
- local people are generally the main drivers in building linkages in these rural economies, given that the social and economic relationships are generally both stronger and closer, and the economic options more limited or constrained, than they are in urban areas;
- linkages between agriculture and food processing, tourism and trade (both on and off farm, large and small scale) tend to be the most important;
- whether acting on their own, or through formal or informal social and business networks, local farmers and other actors seem well aware of the potential impact of their actions, but can be encouraged or discouraged in taking initiatives by the policy criteria or local institutional arrangements in place, as well as the extent to which advice and support is available.

The findings from the regional analyses and related case studies form an important body of information, which can provide an evidence based contribution to both programme implementation and future development.

In more general terms, a common key determinant of the performance of a local rural economy has been found to be its capacity to *respond to the pace of structural changes*. The case studies undertaken in the areas indicate that the challenges for the agricultural sector and the rural economy generally are particularly great in many of the new Member States (MS) as well as some areas within EU-15.

The analyses of the various NUTS3 regions highlight, not only the obvious differences between regions in terms of living standards, importance of agriculture, etc., but also the *diversity within regions*. Even relatively small NUTS3 regions (with populations of 150,000 to 300,000) generally contain several sub-regions which specialise in different economic activities – alternative forms of agricultural or forestry production (crops, fruits, livestock, timber etc.), various types of tourism (nature reserves, pleasure parks, coastal activities etc.), various small town activities (shopping, restaurants and other services), etc.

In terms of *policy coherence and consistency* between national, regional and local level policy goals and measures, the analysis found that the goal of strengthening linkages between agriculture and the wider rural economy do not appear to be adequately embedded in the majority of Rural Development Programmes (RDP) analysed, with similar objectives often pursued under different axes, and little complementarity between the European Agricultural Fund for Rural Development (EAFRD) interventions and other support. Moreover, the structure and nature of *institutional arrangements* vary greatly between MS. Some systems ensure consistent planning and delivery, but others (notably highly centralised systems and complex systems with limited co-ordination) do not.

The need to adapt actions to new challenges is being taken into account by the EU's current policy on agriculture and rural development, but this local level research suggests that more attention needs to be paid to the development of real synergies between agriculture and the wider rural economies and, in particular, that rural development policy objectives and programmes that merely indicate *eligible regions of intervention, and the types of support* measures available, are not sufficient to achieve this.

In practice, the findings of the TWG2 analysis indicate that a more cross-cutting integrated, pro-active and strategic approach to programming would be beneficial, focused on actions that will *deliver desired economic and social outcomes* defined in terms such as:

- the creation, preservation, or diversification of jobs and activities;
- the generation of rising or additional incomes;
- the strengthening of local capacity to cope with change.

This approach, subject to regional specificities where known, should explicitly be predicated on the high level of forward linkages existing between agriculture and other sectors (especially, tourism, food processing and trade).

The evidence provided in this report suggests that, in terms of future challenges, it may be appropriate to distinguish three broad types of rural areas:

- *distressed rural areas* – notably in some of the new Member States – where agriculture is in decline, where new activities are slow to develop, and which warrant wide-ranging economic and social support similar to that given to distressed areas of inner cities;
- *specialised agricultural rural areas* – such as Gers, France - which continue to focus successfully on agriculture as a core activity, but which could nevertheless benefit from modest diversification in order to maintain continued growth and prosperity;
- *diversified rural areas* – the most common type in most countries - where agriculture is no longer a dominant part of the region's economic and social structure, but which nevertheless plays an important part in maintaining vitality and local character.³

This does not necessarily mean that the types of assistance that can be offered from public funds should vary but it does suggest the need for all regional levels – NUTS2, NUTS3, and the smaller sub-regions⁴ that are identified in this report – to have *clear and transparent strategic plans* that:

- reflect their specific challenges, and include realistic responses and attainable objectives, bearing in mind the potential and capacity of the areas and their populations, and;
- indicate ways in which the EAFRD, in *association with the other EU structural funds and national funding instruments*, can best contribute and co-operate to achieving those ends, with *operational programmes* that make funding for projects specifically dependent on their promoters demonstrating their contribution to the achievement of the wider goals of the local economy, and not simply meeting specific project-based criteria.

Many of the practical weaknesses in delivery systems that have been identified in the regions studied and in the individual case studies, need to be addressed with urgency. It is equally important that:

- local stakeholders are meaningfully involved in the development and subsequent implementation of strategic plans;
- project proposers, especially small farmers and SMEs generally, are provided with *advice and support in making submissions* against such criteria, and are not left to compete unevenly against larger companies, or to resort to commercial companies to develop submissions on their behalf.

³ As the TERSA 6th Framework study has noted, 'intensive high-nature value/tourist regions do not necessarily have an intensive agriculture' <http://www.teresa-eu.info/>

⁴ Where appropriate, for example local IDS or other sub-regional strategies. These may not necessarily be a formal part of the RDP strategic planning process.

The analysis of the 18 NUTS3 regions clearly shows a high degree of diversity within NUTS3 regions in terms of the composition and distribution of activities with, typically, different parts of the regions being separate 'local economies' with their own specialisations, being focused on different activities to differing extents: agriculture of many kinds, forestry, fishing, energy production, tourism and recreation of a variety of many types (hill-walking, visiting historic sites, pleasure parks, sports, arts, craft production etc) .

These findings suggest that, for there to be a better territorial targeting of policy interventions, future programming should be more based on sub-regional specificities that meet both EU and MS policy objectives and needs, and (amongst other things) take into account the links between Pillars 1 and 2 (which are often area-specific).

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1 Introduction

1.1 Background and rationale

1.1.1 Approach

The activities of the working group aimed at identifying and describing the relationships and potential synergies and/or conflicts between agriculture and the rural economy in various types of EU rural areas. This work has involved:

- developing a better understanding of the economic relationships between agriculture and rural economy at the local level, including the multifunctional contribution of agriculture;
- identifying the key factors that determine the potential of regions and localities – economic, human resource, natural endowment, competition over resources – and classifying those where policy support can be most effective;
- screening policy programmes at national, regional and local level in order to assess their coherence and consistency regarding agriculture and rural development;
- assessing the contribution of current policies and institutional arrangements to successful outcomes – positive aspects, difficulties and obstacles;
- presenting the main findings that could be relevant for the development of current and future policy on agriculture and rural development.

1.1.2 Methods

This work was conducted on the basis of:

- review of existing literature and knowledge regarding relationships between agriculture and the rural economy at the local level;
- selection and analysis of a set of 18 local (NUTS3) study regions that were used to identify:
 - the economic relationship between agriculture and other sectors within the selected areas, using input-output analyses and other economic, social and demographic data;
 - examples of successful agricultural and rural interdependence, using case studies from the selected study regions;
 - issues concerning the relationship between programme objectives and priorities, organisational arrangements, and performance on the grounds, based on analyses of a limited number of the study regions.

1.2 Aims, objectives and structure of the report

The overall aim of the report is to contribute to the improvement of the information concerning the implementation of current policy and to suggest ways in which the pursuit of policy goals can be strengthened in both the current and prospective programming periods.

The report presents:

- The results of a series of new analyses conducted in a set of representative case study regions at NUTS3 level covering:
 - input-output analyses designed to investigate the relationship between agricultural activity and the rest of the local rural economy;
 - general assessments of the study regions, using both quantitative and qualitative data, in order to identify key drivers and determinants of economic, employment and social performance;
 - specific assessments of the institutional and policy delivery frameworks and capacity in a sub-set of the selected NUTS3 regions with examples of effective policy-supporting linkages and examples of positive factors and obstacles to progress, based on local case studies.
- A summary presentation of the possible implications for policy.

2 Main findings of the analysis

2.1 Results of the study region selection

A limited programme of in-depth local level research in 18 representative NUTS3 regions was undertaken. It was first decided that the selection of the test regions will be based on the OECD refined typology, which uses population density, land cover and peripherality criteria to classify 1,303 NUTS 3 regions to six types. Hence this particular typology was utilized to decide that the selection process will deal with Rural Peripheral Regions (RPR – 10% of regions), Rural Accessible Regions (RAR – 20%) and Intermediate Open Space Regions (IOR – 15%), which altogether form the “core” of rural EU.

The first step of the interdependence analysis which aimed at identifying links between agriculture and the wider rural economy was to construct regional input-output (I/O) tables for the 18 study areas. To this end, the GRIT hybrid regionalization technique was chosen (Jensen et al., 1979). This technique was chosen due to its wide application in recent years (indicatively see Johns and Leat, 1987; Psaltopoulos and Thomson, 1993; Ciobanu *et al.*, 2004) but also due to the prohibitive cost of constructing survey-based tables and its suitability in a small-region context.

Thus, national I/O tables (mostly for years 2004 and 2005) and national/regional sectoral employment data were utilized to estimate location quotients and build study-region-specific IO tables. In turn, to assess linkages between local agricultural activity and water – land consumption, the restricted version of the ecological commodities model was utilized (Miller and Blair, 2009), which can capture the direct and indirect impacts of inter-industry activity on natural resources.

As a next step, cluster analysis was used to group these regions according to criteria associated with economic structures and market size. These criteria included the degree of importance of agriculture in terms of GVA, the importance of the local food industry (as a percentage of total manufacturing employment), the importance of tourism (in terms of availability of natural resources and accommodation facilities), demographic changes (population change between 1995 and 2005), competition for water resources (irrigable land location quotients) and competition for land (index on the importance of urban residential and infrastructure sprawl to total agricultural area).

The cluster analysis was performed in two stages, through iteration of data on the first four criteria, followed by procedures to incorporate information on competition for water and land (in the case of which data was not available for all regions).

2.2 Structural characteristics of study regions

On the basis of these criteria, three clusters of regions, with six cases in each, were identified:

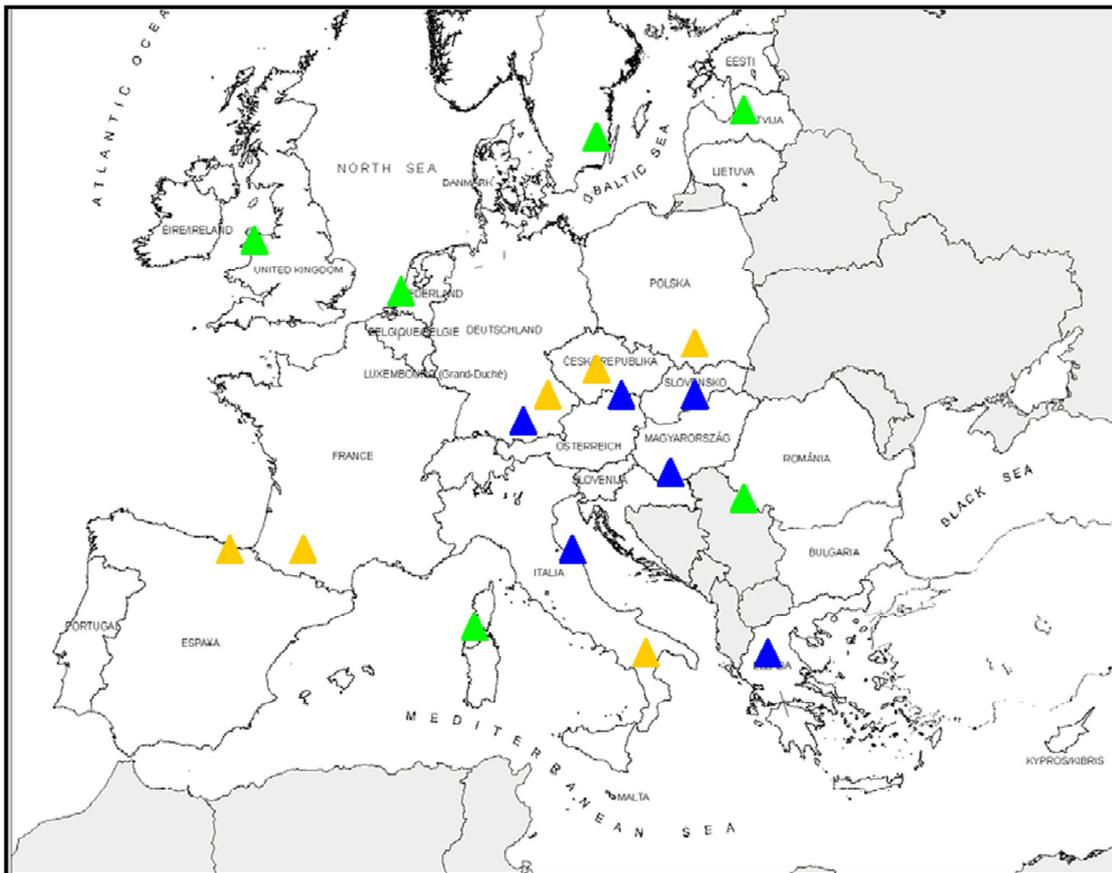
- *Non-dynamic (ND) regions* characterised by low to average importance of agriculture; low contribution of the food industry; medium availability/proximity of resources for tourism development; stagnant population. The selected regions were Waldviertel, Austria (RPR); Somogy, Hungary (RPR); Trikala, Greece (RAR); Banskobystricky kraj, Slovak Republic (RAR); Ebersberg, Germany (IOR); Pesaro e Urbino, Italy (IOR).
- *Agriculturally-dependent, dynamic regions (ADD)* characterised by important contribution of agriculture to total regional value-added; medium importance of the food sector; medium importance of resources for tourism development; high population growth. The selected regions

were Matera, Italy (RPR); Gers, France (RPR); Rottal-Inn, Germany (RAR); Vysocina, Czech Republic (RAR); Alava, Spain (IOR); Krakowski, Poland (IOR).

- *Diversified dynamic regions (DDA)* characterised by medium importance of agriculture; very high importance of the food industry; high importance of tourism; medium to high population growth. The selected regions were Kalmar Ian, Sweden (RPR); Caras-Severin, Romania (RPR); Gwynedd, United Kingdom (RAR); Pieriga, Latvia (RAR); Overig Zeeland, Netherlands (IOR); Corse-du-Sud, France (IOR).

These cluster groups were identified on the base of criteria specific to the attempted interdependence. However, in order to present and integrate results with study region characteristics associated with more general issues - such as economic and agricultural development, human resources, institutional capacity and natural endowment and infrastructure – the results were eventually presented under a three-way grouping of Northern Member States, Southern Member States and new Member States. See Figure 1, The 18 Study Regions Selected and Table 1, both below.

Figure 1: The 18 Study Regions Selected



- *Non-dynamic (ND) regions (▲)*: Waldviertel, Austria RPR; Somogy, Hungary RPR; Trikala, Greece RAR; Banskobystricky kraj, Slovak republic RAR; Ebersberg, Germany IOR; Pesaro-Urbino, Italy IOR
- *Agriculturally-dependent dynamic regions (▲)*: Matera, Italy RPR; Gers, France RPR; Rottal-Inn, Germany RAR; Vysocina, Czech Republic RAR; Alava, Spain IOR; Krakowski, Poland IOR

- *Diversified dynamic regions (▲)*: Kaslmar Ian, Sweden RPR; Caras-Severin, Romania RPR; Gwynedd, United Kingdom RAR; Pieriga, Latvia RAR; Overig Zeeland, Netherlands IOR; Corse-du-Sud, France IOR

Table 1: Classification of the 18 regions

	Country	NUTS code	Region (NUT 3 level)	Cluster categorisation	OECD regional Category
Northern	Austria	AT124	Waldviertel	NDR	RPR
	Sweden	SE213	Kalmar län	DDR	RPR
	Germany	DE22A	Rottal-Inn	ADD	RAR
	Netherlands	NL342	Overig Zeeland	DDR	IOS
	Germany	DE218	Ebersberg	NDR	IOS
	United Kingdom	UKL12	Gwynedd	DDR	RAR
Southern	Italy	ITF52	Matera	ADD	RPR
	France	FR624	Gers	ADD	RPR
	Italy	ITE31	Pesaro-Urbino	NDR	IOS
	France	FR831	Corse-du-Sud	DDR	IOS
	Spain	ES211	Álava	ADD	IOS
	Greece	GR144	Trikala	NDR	RAR
Newer MS	Hungary	HU232	Somogy	NDR	RPR
	Romania	RO422	Caras-Severin	DDR	RPR
	Slovakia	SK032	Banskobystricky kraj	NDR	RAR
	Latvia	LV007	Pieriga	DDR	RAR
	Czech Republic	CZ063	Vysocina	ADD	RAR
	Poland	PL214	Krakowski	ADD	IOS

While any grouping inevitably has its disadvantages, this latter presentation proved useful in taking more direct account of basic economic data – such as average living standards/productivity in the regions concerned compared with the EU average, rates of GDP growth (which are typically higher in the newer MS than in EU-15), the extent of subsistence farming, or a predominance or otherwise of older age groups in the regions.

Further, such a simple structuring of the cases serves to highlight characteristics which illustrate the rich and complex diversity of situations that characterise rural areas and agricultural activity across the Union.

For each of these regions, a first detailed analysis was first undertaken of the relationship between agricultural activities and other sectors, and the impact of changes in agricultural activity in terms of both backward and forward economic linkages, see section 2.3. Following that, more general economic analyses of the regions were undertaken in order to be able to better explain differences in results between regions, see section 2.4.

2.3 Interdependence analysis results

Several interdependence indicators⁵ were estimated for each of the study regions. Based on these indicators, the following issues were investigated in each region:

- provision of non-agricultural inputs and services to the farm sector (backward linkages);
- use of farm output by other rural sectors (forward linkages);
- supply and demand for production factors;
- potential for diversification of farm activities.

Results showed that links between agriculture and the rest of the local regional economy are generally stronger and more positive than might be inferred from statistics concerning agriculture's often relatively low share of local GDP or employment.

Coefficients for these backward and forward linkages indicate, respectively, the extent to which changes in output in the agriculture sector result in, or are related to, changes in the rest of the local economy: on the one hand the sectors that supply the agricultural sector and, on the other hand, the sectors that purchase the output from the agricultural sector, whether directly or indirectly.

The estimated effects of changes in agricultural output on suppliers (backward linkages) were found to be generally low, or average, in line with estimates from other studies. In numerical terms, the typical coefficient is around 1.5 indicating that any increase in agricultural output will produce an additional 50% increase in output among local suppliers to the sector.

The effects on the local economy of sales of increased farm output to other sectors in the region (forward linkages) were found to be high in most areas, with a typical coefficient of around 2.5 indicating that an increase in agricultural output will produce an additional 150% increase in output among local purchasers and consumers of that output.

Effects of changes in agricultural output on suppliers (backward linkages) were found to be generally low, or average, in line with estimates from other studies (see Table 2 below). However, they are quite high in areas with a more diversified economic base: thus the backward linkage coefficient of 1.687 for agriculture in Gwynedd, UK (where agriculture accounts for only around 4% of employment) implies that each 1 EUR increase in the demand for agricultural output generates an extra output of 0.687 EUR in the local economy.

⁵ These include: backward and forward linkage indicators; industry interconnectedness indicator; I/O elasticities; value added index and multiplier; cumulated primary input coefficient for employment; Ghosh supply multipliers.

Table 2: Backward and Forward Linkage Indicators

	Input-output results	NUTS code	Region (NUTS 3 level)	Backward Linkage	Forward Linkage
Northern	Austria	AT124	Waldviertel	1.2	1.8
	Sweden	SE213	Kalmar län	1.2	2.2
	Germany	DE22A	Rottal-Inn	1.7	1.6
	Netherlands	NL342	Overig Zeeland	1.4	1.4
	Germany	DE218	Ebersberg	1.6	2.6
	United Kingdom	UKL12	Gwynedd	1.7	2.7
Southern	Italy	ITF52	Matera	1.3	2.7
	France	FR624	Gers	1.4	2.2
	Italy	ITE31	Pesaro-Urbino	1.3	2.9
	France	FR831	Corse-du-Sud	1.6	2.7
	Spain	ES211	Álava	1.7	1.7
	Greece	GR144	Trikala	1.3	2.6
Newer MS	Hungary	HU232	Somogy	1.5	1.4
	Romania	RO422	Caras-Severin	1.6	2.7
	Slovakia	SK032	Banskobystricky kraj	1.8	2.3
	Latvia	LV007	Pieriga	1.4	1.1
	Czech Republic	CZ063	Vysocina	1.5	1.7
	Poland	PL214	Krakowski	NA	NA

Effects on the local economy of sales of increased farm output to other sectors in the region (forward linkages) were found to be high in most areas (see Table 2). For example, a coefficient of 2.9 for agriculture in Pesaro and Urbino, Italy, implies that a 1 euro increase in demand for agricultural output generates extra output of 1.9 euro in the local economy.

In terms of production factors, it was found that the economy-wide effects of agricultural labour supply were high in 14 out of 18 areas (see Annex, Table A1).

Farm activity diversification (see also Annex, Table A1) may be described as on average satisfactory as agriculture sells its output to a considerable number of local sectors in 10 out of 18 areas.

Finally, effects of farm activity on water and land consumption were found to be driven by study-area-specific conditions (see Annex Table A2). Indicatively, a 1 million EUR increase in farm output leads to the economy-wide consumption of over 900,000 m³ of water in Trikala, 1,100,000 m³ in Alava and 6,600,000 m³ in Matera. In turn, a 1 million EUR increase in farm output leads to the economy-wide use of over 280 ha in Ebersberg, nearly 1970 ha in Alava and 545 ha in Corse-du-Sud.

More generally, agriculture is identified as a 'key sector' in 14 out of 18 regions studied in terms of forward linkages, in the sense that increases in output in the sector result in above-average increases in output elsewhere in the region, compared with the average results for all sectors in the region. Agriculture was found to have especially high forward linkages with food processing, hotels and catering and trade, all sectors that, in turn, have further high links with the rest of the rural economy.

2.4 Factors affecting the development potential of the study regions

In order to provide a wider assessment of the contribution of agriculture to the economies of the selected study regions and a better understanding of their development characteristics and trends, socio-economic and structural data was obtained and analysed together with study-region qualitative evidence. This analysis led to the identification of a number of factors which influence the development potential of the study regions; these include economic and agricultural development factors, human resources, natural endowment and infrastructure and resource competition and conflicts.

In general the study regions were found to be highly heterogeneous in terms of several structural characteristics which influence their development trends and potential. Market size differs as shown by population, which range from 120,000 to 660,000 (see Annex, Table A3) and GDP (see Annex, Figure A1). There are also considerable differences in terms of average income (see Figure 2 below) with extremes such as Alava and Pieriga; 130% and 30% respectively of EU average and of peripherality (see Figure 3 below).

Figure 2: Regional GDP per capita as % of Average EU Income, 2006

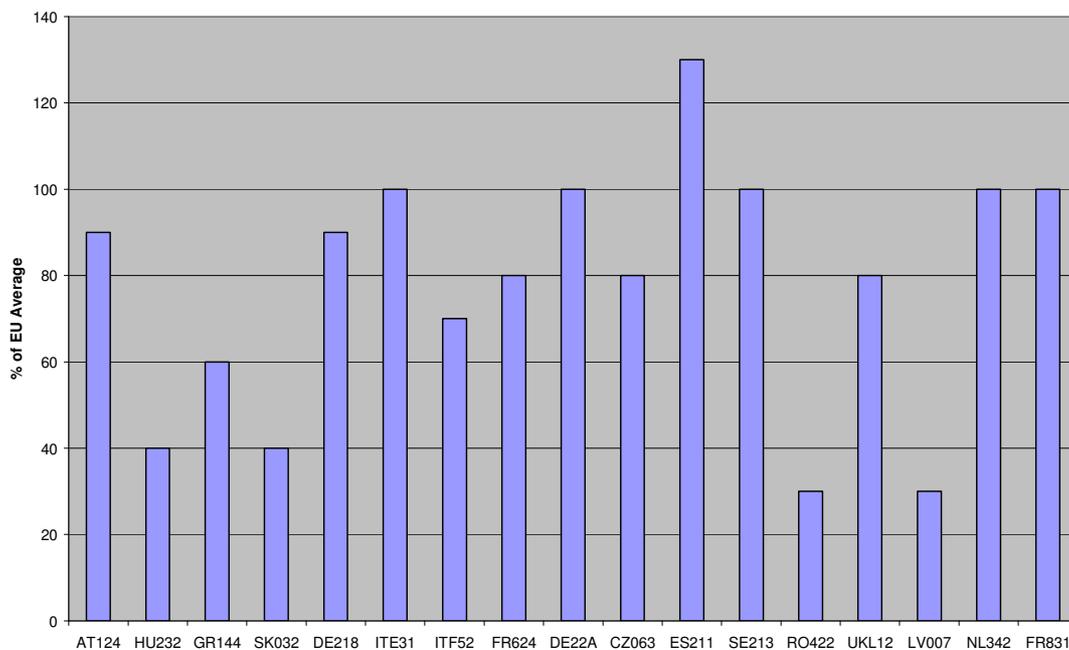
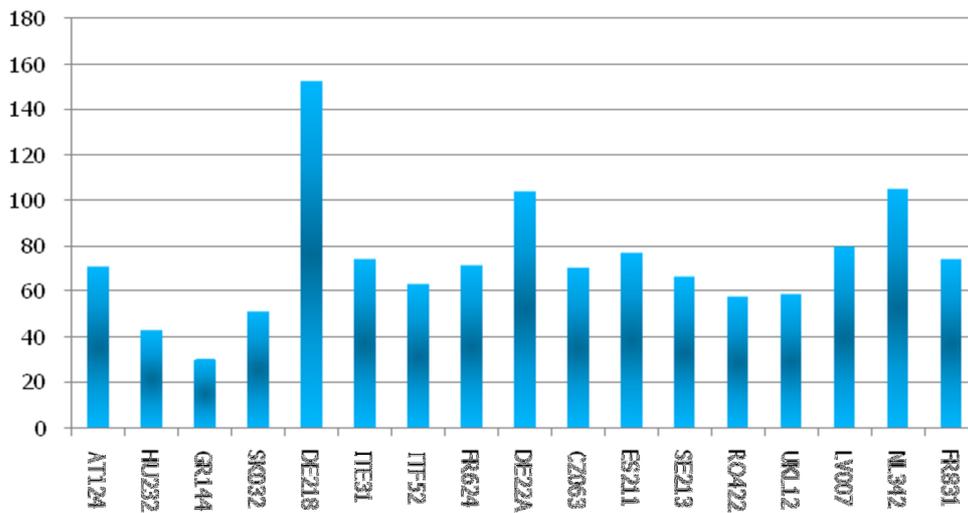
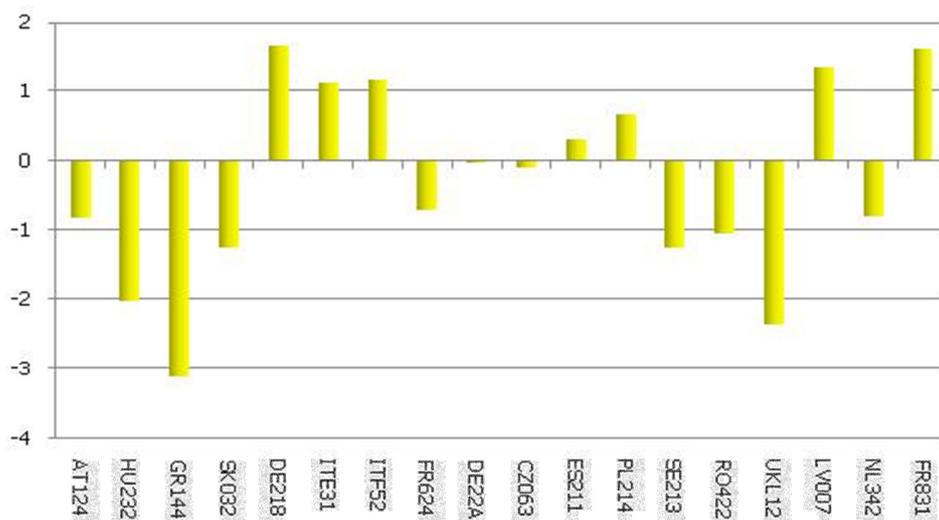


Figure 3: Accessibility index of study areas in 2006 (EU=100)



Regarding *economic development*, there is a significant variation in the evolution of the population between 2000 and 2006 (see Annex, Figure A2) and in the deviation of GDP growth rate from the respective national average for period 1995-2006 (see Figure 4 below). Notable population declines are observed in areas located in the new member states, while population has increased most in the German, French, Dutch and Italian study regions.

Figure 4: Deviation of study regions average GDP growth rate from respective national average (1995-2006)



In terms of GDP growth, most of the regions underperformed in comparison to their respective national averages, especially Somogy, Trikala, Kalmar län and Gwynedd. On the other hand, study areas such as Ebersberg, Pesaro-Urbino, Matera, Pieriga and Corse du Sud have grown much more rapidly compared to the national average during this period. Also, the same data shows that regions located in the newer MS exhibited the highest average GDP growth.

Regarding *agricultural development*, there are considerable differences in several structural characteristics. These include the shares of agricultural to total land (ranging from 70% in Gwynedd to 13% in Corse-du-Sud), agricultural to regional value-added (quite low in the EU-15 study areas; higher in the EU-12 ones) and of agriculture to total regional employment (quite high in the EU-12 study REGIONS and some southern study regions, see Table 3 below).

Table 3: Agricultural land, value-added and employment shares (%)

	Country	Region (NUTS3 level)	Agricultural Land (% of total)	Agricultural share of regional value added (%)	Share (%) of agricultural employment
Northern	Austria	Waldviertel	48	5	19
	Sweden	Kalmar län	17	3	5
	Germany	Rottal-Inn	n.a.	4	8
	Netherlands	Overig Zeeland	34	4	5
	Germany	Ebersberg	n.a.	2	4
	United Kingdom	Gwynedd	70	n.a.	n.a
Southern	Italy	Matera	48	8	15
	France	Gers	73	13	16
	Italy	Pesaro- Urbino	47	2	3
	France	Corse-du-Sud	13	1	3
	Spain	Álava	40	2	3
	Greece	Trikala	19	9	26
New MSs	Hungary	Somogy	39	10	10
	Romania	Caras-Severin	49	16	21
	Slovakia	Banskobystricky kraj	33	5	6
	Latvia	Pieriga	23	5	16
	Czech Republic	Vysocina	55	9	9
	Poland	Krakowski	n.a.	n.a.	34

Also, considerable variations in farm labour productivity are observed, with high rates in Overig Zeeland, Kalmar län, Gers and Alava and quite low rates in the new MS (Annex, Figure A3) and in land productivity (Annex, Figure A4). Moreover, several study regions are very heterogeneous and characterised by a considerable spatial variation of economic activity, influenced by land characteristics (e.g. fertile or mountainous land), other natural resources and infrastructure.

Most regions are losing agricultural employment (see Annex, Table A4) with these job losses being (in general) very rapid in the new MS and the southern. Thus, the capacity of such areas and the timeframe required to respond to structural change is a key determinant local economic development prospects. Further, the fact that in many new and some old member states a very significant proportion of agricultural activity is associated with subsistence farming or/and is of a part-time nature, restricts the capacity of local agriculture to build linkages with other rural sectors (see Annex, Table A5).

Also, qualitative evidence suggests that Common Agricultural Policy (CAP) Pillar 2 support has tended to favor large-scale producers over small-holders; this fact may have also contributed to the observed structural change. However, on a more positive note, several successful farm diversification initiatives have been identified. Most of these success stories are associated with small niche markets, often linked to rural tourism and local food products. However, these positive initiatives seem rather limited in their capacity to compensate for job losses in mainstream farm activity.

It is well-known that the quality of *human resources* (i.e. levels of education, labour market structure and business capabilities) are very important factors determining the level of dynamism, entrepreneurial capacity and responsiveness of a region to structural change. Evidence from the study regions confirms that the proportion of residents aged over 65 is marginally higher compared to the national average, while the age-structure of the study area farm labour force is not more unfavourable than the national average (see Annex, Figure A5).

On the other hand, qualitative evidence on the loss of young people from rural areas generates reservations on the ability of these economies to respond to structural change. In terms of educational capacity (see Annex, Table A6) evidence shows that the potential of the workforce in new MS is satisfactory (compared to the EU-15), but the opposite holds in the case of farm managers who have received agricultural training. Finally, entrepreneurial attitudes seem to be mixed, positive in some cases (Waldviertel, Gers, Matera) and restricted by a natural resistance of the farming population to change (Trikala, Gwynedd).

In a rural context, *natural endowments and infrastructure* are critical factors influencing the ability of an area to respond to structural adjustment, retain human capital and develop new, competitive types of economic activity. Qualitative evidence has shown that remoteness and lack of accessibility within and between (e.g. mountainous areas) is constraining economic activity (due to very high transaction costs) and generates depopulation phenomena (e.g. parts of Trikala).

Consequently, and in accordance to other findings (e.g. Weingarten *et al.*, 2009⁶), there are few opportunities for economic diversification in remote areas, except if they include areas of high aesthetic value which in turn can potentially constitute tourist destinations (e.g. Trikala, Matera). An improvement in infrastructure associated with accessibility can improve development prospects, especially if it considerably reduces distance to large urban markets, but infrastructure associated with basic services in rural areas is also an important determinant of retaining human capital.

With regards to *resource competition and conflicts*, little evidence of conflict has been identified in the study regions between alternative uses or demands upon the land, even though conflicts over water, land, environment, energy and other resources clearly exist in some regions. Forestry is important in terms of land use (see Annex, Table A7) and in some cases agricultural contraction has led to the expansion of forest. Finally, the growth of tourism might in the future generate conflicts for land especially where there are shortages of rural properties, while renewable energies might increase conflicts between land owners, local inhabitants, energy producers and rural stakeholders involved in tourism.

⁶ Weingarten, P., Neumeier, S., Copus, A., Psaltopoulos, D., Skuras, D. and Balamou, E. (2009). *Building a Typology of European Rural Areas for the Spatial Impact Assessment of Policies : Final Report*, Seville: JRS-IPTS.

2.5 Institutional and policy delivery framework

Since rural development policy is designed and implemented through a wide range of national, regional and local institutions, its efficacy can significantly depend on institutional capacity to design clear and coherent policy strategic paths, and on their competence to coordinate and efficiently implement development strategies that promote competitive, sustainable and synergistic forms of rural economic activity. In this context, the rural and structural policy and institutional arrangements were reviewed in six of the 18 study regions in order to investigate strategic and policy coherence, as well as the competence of the institutional and policy delivery framework in terms of creating interaction and synergy between agriculture and the rest of the rural economy.

Evidence from several of the study regions confirmed that, in those regions where administrative capacity is weak, poorly organised, overly bureaucratic, non-transparent and/or lacking service orientation, there is a strong negative correlation with the level of dynamism, diversity of economic activity and overall strength of links between agriculture and the wider economy within that region. This was further confirmed through further case study evidence that the level of local capacity to respond to changes, to take initiative and/or provide leadership and coordinate actions appears to be a critical success factor in many regions.

Findings from six in-depth regional enquiries suggest that the re-enforcement of linkages between agriculture and the wider rural economy is not significantly embedded in the majority of Rural Development Programmes (RDP). Similar objectives regarding linkages between agriculture and other sectors are pursued mainly through axis 1 (which has the largest number of measures and in most cases, the highest amount of RDP funds) and secondarily, through axis 3. Complementarity between EAFRD interventions and other EU or nationally-funded development programmes was found to be marginal. Also, the structure and nature of institutional arrangements vary greatly between MS; some ensure consistent planning and delivery, but others (highly centralised systems and complex systems with limited co-ordination) do not.

To sum up, this analysis demonstrated that RDP objectives and programmes that merely indicate eligible areas of action or intervention and the types of support measures for which actors can compete, may be inadequate in promoting linkages between agriculture and the wider rural economy in a coherent, strategic manner. This does not mean that these linkages are never utilised at the local level, but this seems to be a result of private initiatives rather than policy design and delivery. Thus, a more cross-cutting and integrated policy framework and programme structure may be required, mostly defining procedures which could induce the enhancement of these links, rather than desired outcomes at the sectoral level (see section 4, Policy relevant findings).

2.6 Relevant examples of linkages

To complement the findings on the role of the institutional and policy delivery framework in promoting the creation of higher linkages between agriculture and the wider rural economy, some 24 case study projects that have benefited from EU support were identified and analysed. These projects were considered as successful by national experts and as creating or promoting links between agriculture and the wider rural economy.

The analysis of these case studies focused on the identification of factors such as key local development drivers, the relative importance of different economic, social and other factors on the success of an investment initiative and obstacles which investors have faced.

This analysis has shown that a wide range of projects that can create, or promote, linkages between farm and non-farm businesses have been successfully developed in a variety of different policy and institutional situations. When a lack of policy coherence is combined with unhelpful institutional arrangements, however, the costs can be high in terms of the additional efforts that have to be made by project promoters.

Local people are the main drivers in building linkages between agriculture and the wider rural economy, whether through either individual or collective initiatives (formal or informal social and business networks). Linkages between primary agriculture, food processing, tourism and trade (both on and off farm, large and small scale) tend to be the most important, confirming the interdependence analysis results. Depending on the efficacy of the relevant institutional framework, in several cases, and depending on the competence of the local institutional framework, investors are encouraged or discouraged in taking initiatives by the local institutions.

Positive factors that strengthen the linkages between agriculture and the wider rural economy in these case studies include the competitive advantages of the local economy and the strength of the wider national and regional economy; the entrepreneurial capacity of the local rural population, and the propensity to form various types of partnerships and to share risks/benefits; the ease with which financial support can be accessed; the range and capacity of institutional support and advisory services, and; the correspondence between available policy measures and area-specific characteristics and comparative advantages.

In turn, obstacles to initiatives supporting linkages between agriculture and the rural economy include onerous procedures for applying for funding including frequent administrative/licensing obstacles; infrequent commitments rather than continuous funding possibilities; long delays in getting agreements or receiving payments, and; lack of transparency and openness of institutions and administrative support services.

3 Factors affecting synergy between agriculture and the wider rural economy

In terms of positive outcomes (“what works well”) and difficulties encountered, the evidence from the case studies provide general as well as specific insights. The three most fundamental factors are seen to be: (i) the natural advantages of the local economy – which is largely given; (ii) the capacity of the local people – which the EU has the potential to address over the medium term, and; (iii) the appropriateness of the policy support available – where more immediate action can be envisaged.

3.1 Structural characteristics

Natural advantages of the economy

The *natural advantages of the local economy* in terms of land quality, climate, attractions, the existence of *relevant infrastructure*, together with the overall *strength of the national economy* in terms of productivity, flexibility and financial strength, are all factors that affect the capacity of a rural economy to evolve and must necessarily be taken into account in making assessments of potential.

These ‘endowments’ determine the form and types of interactions between agriculture, the rural economy and the environment which, in turn, create different patterns and opportunities of rural development. In particular, there is generally little point in seeking to diversify into tourism in an area which lacks basic attractions.

In rural areas with highly-valued natural environment, the so-called ‘commodification’ of the countryside and environmental public goods, the development of ‘multifunctionality’ in place of more traditional and narrowly-focused farming and forestry, and the growth of newer tourism and recreational activities, can lead to a greater exploitation of this endogenous potential, creating synergies between different sectors, leading to a much smoother process of rural diversification and structural adjustment.

In contrast, a depletion, destruction or abuse of an area’s natural resources – for example by overly intensive farming, insensitive forestry planting or power station installations⁷ - narrows the options for agriculture, undermines the area’s rural image and negatively affects tourism and leisure activities. As a result, synergies between different local sectors are reduced and structural adjustment put at risk. A similar outcome can equally be induced, however, through the negative effects on natural assets induced by land abandonments / the collapse of farming.

At the same time, the absence of points of attraction – whether they be historic buildings or structures, areas of ‘natural beauty’, or features such as lakes or reservoirs offering ‘development potential’ – will inevitably limit the options for areas seeking to diversify into tourism or recreational activities, just as poor quality land or adverse climate conditions limit the scale, type and productivity of agriculture, and lack of wind and sun limit the potential of some forms of alternative energy generation.

High living standards can also be associated with the transmission of urban spillover effects to rural areas, mostly through demand for recreation and food products with a distinct identity. Furthermore, a developed regional context coupled with accessibility is mostly associated with a diversified rural

⁷ As experienced in Gwynedd and subsequently reversed.

economy, which has experienced (to a significant extent) structural adjustment and “maintains” a rather competitive and integrated local economic structure.

While accessibility is an important factor for rural development – not least in terms of transport of agricultural output - its impact may be somewhat ambiguous and has to be assessed with care. On the one hand there are many cases where rural areas are being re-invigorated through their integration with adjacent urban areas or small town, including through commuting, which fits with some development concepts that see continued integration of urban and rural areas as an inevitable process. On the other hand, for others, the retention of rural areas as districts that are markedly distinct from urban ones, and necessarily retaining different characteristics⁸, is part of their attraction, and it is this that will sustain their future development.

This latter view would be supported by the experiences of prosperous rural regions such as Ebersberg, Germany or Kalmar län, Sweden, which offer activities like hill-walking, horse-riding etc. that are, by definition, rarely available in urban environments. The Welsh (UK) and Italian cases represent a more extreme polarisation, however, in that transport distances are such as to favour holidaying rather than ‘week-ending’, with areas retaining more of their traditional flavour. In these cases, however, agriculture and forestry plays somewhat different roles – more independent and free-standing in Italy, and more of a background supporting role in, for example, the Welsh case.

3.2 Human capital

Capacity of local people

Based primarily but not solely on qualitative investigations undertaken, the extent to which local people – individually or collectively – are able to successfully obtain support for their projects and achieve their goals will ultimately depend on:

- the *entrepreneurial capacity of the local population*, which is a reflection of various factors – notably the business acumen of local business leaders and the level of education and training of the local population. However, the extent to which public authorities, institutions and agencies provide relevant support is also important, not least when technical issues are involved, as is increasingly the case with many environmental and energy-related projects;
- the *social capacity of the region* to mobilise actors and agencies in common cause, not least to share the risks and benefits of initiatives whose impact is widespread. Such social forces can, on occasions, be onerous and conservative, working to slow or inhibit change, but they can also be very positive, enabling and encouraging groups to act in common. This can be particularly important in areas where agriculture is an important contributor to the local economy, not least in encouraging young farmers into the sector.

This can be true in almost any economic area, but it would appear to be particularly important in rural economies given that the social and economic relationships are generally stronger/closer, and the economic options more limited or constrained, than they are in urbanised areas.

⁸ This is a reflection of views going back as far as the 1950s, during the period of post-war reconstruction, when the growth of suburbs were seen as threatening the countryside. (Ian Nairn, “Outrage and counterattack” which sought to categorised areas as city, urban, arcadia, countryside, wild.

Local people can act to affect their environment in different ways. In some cases, project and policy initiatives and change depend primarily on individuals, whether these are farm or other business owners, as in the case study on *Eco-fishing tourism* in Somogy, Hungary where the initiative to diversify came from the owner of a local fish farm. Likewise, the case study concerning the *Establishment of a small Hotel* in Trikala, Greece illustrates how the basic aim of the land and property owner was simply to diversify from what was perceived as declining agriculture into expanding tourism.

In other cases, such initiatives come from formal or informal groups, generally representing collective interests, whether these are commercial or otherwise. In all cases, however, they are likely to be particularly aware of the potential impact of their actions on their local economy as well as on themselves. Just as important, if not more so in many cases, will be the possibility to draw on myriad social networks, formal and informal, that can inform and support their initiatives.

This complexity involved in mobilising support is illustrated in the case concerning the initiative *Promoting local food* in Kalmar län, Sweden which was sponsored by a consortium of a rural economy and agriculture society, co-operative development agencies, and the farmers union of five counties. The need to establish wide-ranging co-operation was likewise a key element in the establishment of a modern sausage meat *Processing and packaging plant to serve pork producers* in Trikala, Greece, just as it was in the development of a local *Lamb trademark* in Matera, Italy, bringing together local communes, farm and related as associations, trade unions and various NGOs.

In any such initiatives, local people can be supported or discouraged by local institutional arrangements, and those in Somogy, Hungary, are described in all the cases studies as posing difficulties, especially for small businesses.

Project initiators can also benefit, or not, from the presence of specialist agencies or institutions. Their importance is illustrated in the case study on the *Dairy processing plant* in Kalmar län, Sweden, which received technical assistance from the regional Kalmar University as well as commercial assistance from the Coop and ICA food chains, but this was also the case in relation to the energy and environmental initiatives described in Hungary, the Czech Republic and Sweden where a mastery of the technical and legal requirements concerning both production and connection to electricity supply networks is essential.

At the same time, it would be wrong to imagine that farmers, since they are already managers of small businesses, are natural entrepreneurs, willing and able to expand and develop activities. A review of the case studies suggest that, in many cases - and indeed in many other areas of business - it is often 'outsiders' rather than local people who seek to pioneer new developments, whether this be new markets for agricultural or horticultural products⁹ or new activities¹⁰. Moreover, local people may sometimes tend to look too much to traditional solutions, such as diversification into accommodation for tourists, when the circumstances and market potential may not be there¹¹.

While the issue of managerial and entrepreneurial capacity was not addressed in detail in the regional studies, there was anecdotal reason to believe that there are evidence of low levels of managerial training in most areas. This is consistent with published findings related to entrepreneurial capacity in agriculture which have identified the development of basic management skills in running farms and

⁹ For example, France (Corse du Sud), Sweden, Austria.

¹⁰ For example, the revival of steam-operated narrow gauge industrial railways as tourist attractions in Gwynedd.

¹¹ As appears to be the case in Somogy.

associated activities as being at least as important as the promotion of more out-going entrepreneurial activities in ensuring increased prosperity in rural communities and agriculture.

More generally, while education is never a bad thing to acquire, the evidence from the case studies does not suggest that any obvious correlation between average levels of education and progress in rural development across areas, although the extent to specialised training does seem significant.

3.3 Institutional framework

The impact of institutional arrangements

The ease with which financial support can be accessed through rural and regional development funds in terms of application, assessment, advice, scale of funding, speed of decision appears central and is the most important issue of concern, and the most common source of complaint made by those interviewed in the regional surveys and case studies. Applications will not always be successful, but it is unacceptable for applicants not to be informed of rejections. Conversely it is also unacceptable, for approved projects which then start to be activated, not to receive timely payments. In the regional studies, this appears to be a particular problem in some of the newer MS.

The appropriateness and efficiency of the national and regional policy framework and the range of measures available is undoubtedly a significant factor in determining the overall balance of rural development support in a region, and this is not readily visible through a selection of case studies. However, what the case studies do illustrate is the apparent capacity of project initiators to seek out funds from various corners of whatever sources of funding are available, in order to put together a viable initiative.

Overall, a review of the national and regional programmes and the case studies suggests that local actors and initiators appear to base their actions; firstly, on what look to be good market-oriented possibilities for raising incomes etc. and; secondly, on where and how they are most likely to be able to draw down finance in pursuit of those goals. In this respect, it is interesting to note the different ways in which ostensibly similar projects were able to obtain financial support from different sources.

It should also be noted that the reviews of programmes and institutional arrangements raise concerns that tend to be reinforced by the evidence from the case studies. In particular, the case studies tend to highlight several types of problems, particularly concerning funding.

The most frequently quoted criticisms concerned:

- *a lack of transparency and openness of institutions and administrative support services* which can seriously discourage local farmers and communities to seek policy support and finance;
- *onerous procedures for applying for funding* likewise tend to discriminate against smaller projects in favour of larger companies for whom administrative costs will be a much smaller fraction of total cost;
- *delays in getting agreements and arrangements* where funds are only available very infrequently rather than throughout the programming period;
- *disproportionate checks and controls*;
- *delays in receiving payments* which particularly penalise smaller, financially weaker, organisations and individuals;

- a general *problem in obtaining funding for investing in creating collective support for initiatives* that will bring benefits for all, but which require extensive consultation and marketing to get off the ground.

A more wide-ranging concern with regard to the overall effectiveness of publicly funded support that is not explicitly mentioned in the case studies, but which may be significant, is the extent to which regional or local government authorities effectively chose between alternative projects, not on the basis of the overall *economic or social benefits* that they are expected to generate, but on the extent to which they *conform to pre-determined policy objectives*. This is not a criticism of the concept of strategic programming, rather the lack of a meaningful hierarchy of objectives, which may lead to local level decisions being made on the basis of high level policy objectives which are not appropriate for local circumstances.

3.4 Other factors

In terms of other institutional or organisational factors, not directly under the authority or control of the mandated regional development authority, three in particular stand out as affecting the pace and direction of modernisation and diversification:

- *regulatory controls and associated licensing arrangements*, where delays in obtaining agreements can be particularly important in relation to environmental and waste management issues associated with the production of bio-energy from animal waste – factors noted in some of the new MS, as in Hungary and Czech Republic;
- *planning legislation* which can significantly affect a farmer's ability to convert or extend existing property in order to diversify into tourism-related activities, particularly in areas designated as an area of heritage or natural beauty – a factor noted in the Trikala area of Greece regarding the construction of hotel in an area of tourism – and one which is becoming of increased significance in relation to the erection of wind turbines for energy production in many MS, and;
- *taxation arrangements* which may offer particular tax status and advantages to farmers, but which may be lost if a farm's sources of income are derived from activities from outside the sector, and which has the effect of discouraging diversification – a factor especially noted in the Gwynedd in the UK.

3.5 Policy coherence

An analysis of EAFRD policy coherence specifically relating to issues of relevance to links between agriculture and other sectors was undertaken for six regions. The National Strategy Plans (NSP), RDPs and other funding related documents applicable in each region were reviewed with respect to:

- the coherence between national, regional and local level policy goals;
- the coherence between these various goals, the chosen policy axis, and eligible measures, and;
- the extent of complementarity between rural development policies and other funding programmes.

Coherence between rural development policy objectives at different levels – national, regional and local – was found to be often limited, and the varied uses made of specific axes or measures by project promoters in some areas suggest that choices are made in relation to administrative convenience rather than over-riding policy purposes.

In areas where rural development policy initiatives are generally taken in a decentralized framework – with authority vested in regional or sub-regional authorities rather than nation ones - there appears to be much greater coherence and consistency between policy objectives pursued at the NSP, RDP and measure levels, this being particular apparent in Matera, Italy and in Gers, France. In other cases, such consistency is often absent between the RDP and specific measures (as in Trikala, Greece), between the strategic policy aims and measures (Kalmar län, Sweden; Gwynedd, UK) and between the NSP and RDP (Somogy, Hungary).

Integration of other sources of funding with EAFRD funding appears rather limited. Broadly effective integration seems to exist in some areas (Matera, Gers) with a tradition in decentralized policy design and delivery systems and with a rather strong farm sector and originate from the strategic objectives of development policy. In contrast, in areas with a highly-centralized development policy system (Trikala), strong 'post-productivist' development orientations (Kalmar län) and transition conditions (Somogy) this type of coherence seems practically non-existent.

At the same time, it has to be recognized that the integration of funds from different EU sources is a long-standing issue. The regional investigations did not reveal any fundamental problems, or indeed problematic demarcation issues between Pillars 1 and 2 of the CAP. Nevertheless, little evidence was found that the new organizational arrangements¹² have addressed the issue more effectively than the structures that existed in the past.

In this respect, while the analyses in the study regions are not sufficiently detailed to provide detailed information, concerns have been expressed by commentators that the 'mainstreaming' of the locally-based Leader-style approach has not really developed while some of the opportunities available under earlier Leader arrangements appear to have been lost in some areas.

¹² I.e. those in place for the 2007-2013 programming period.

4 Policy relevant findings

4.1 Context

Tackling the challenges – timescale and opportunities

The factors that appear to be particularly important in determining whether linkages between agriculture and the wider rural economy are important and can be categorized as follows.

1. Those which are fundamental and not subject to easy influence except over the longer term:
 - the natural advantages of the local rural economy, the extent of relevant infrastructure, notably transport, in the area, and the overall strength of the wider national and regional economy, all of which will determine to some considerable extent the long-run potential and options for a locality, as well as the speed with which it is likely to be able to progress towards its goals.
2. Those where there are opportunities for EU rural policy to influence developments, albeit over the medium term:
 - the opportunities and propensity to form partnerships/collaboration, to cooperate and share risks/benefits which can include formal partnerships between different institutions, partnerships between individuals or companies with similar interests and concerns, local or community action group partnerships;
 - the entrepreneurial capacity of the local rural population, which depends on a number of factors, including the educational background and business experience in the area, but also including previous economic, social and political history, and the extent to which private or public initiatives, or joint ventures, are seen in a positive light, and;
 - the range and capacity of institutional support services (such as extension and advisory bodies; consultancy services etc.) as well as educational and scientific bodies (universities and institutes).

4.2 Experiences from the current programming period

The programming process has been completed and revised in all MS through the Health Check process and the development of the European Economic Recovery Plan (EERP). The RDPs are now in the main phase of their implementation. Thus, TWG2's policy findings relevant for the current programming period relate primarily to improve implementation.

Findings with wider programming implications are primarily of relevance to the future programming period and considered in the next sub-section.

Programming coherence

The overall finding was that, while rural development programming documents at different levels in the MS do refer to some extent to the importance of re-enforcing the links between agriculture and rural development in their presentations of policy, they are far from consistent in the ways they do so. More specifically, the detailed analysis reveals that:

- re-enforcing the linkages between agriculture and the wider rural economy is not significantly embedded in the majority of RDPs examined;

- in the majority of cases examined the economic linkages are not explicitly articulated at the level of objectives;
- where these linkages are recognized in one programming level (for example the NSP), they are not always followed-through into the relevant RDP;
- similarly, where these linkages are recognized within the RDP at the axis level they are not always followed into the measures;
- similar objectives are pursued under different axes regarding linkages between agriculture and other sectors. In some cases the same objective is pursued under different axes with different measures, and in others, different objectives are pursued with similar measures. While this in itself is not necessarily a problem, it does not facilitate coherence of priorities and measures;
- there is little complementarity between the EAFRD interventions and activities undertaken with the support of other funding sources (both EU and national). This is a general observation, but of particular importance in relation to multifaceted actions such as those designed to enhance synergies between agriculture and other sectors;
- the structure and nature of institutional arrangements vary greatly between MS. Some appear to ensure consistency and efficiency in planning and delivery but others (highly centralised systems and complex systems with limited co-ordination) do not.

This evidence is of concern from a policy perspective since it does not reveal any consistent pattern of recognition of the importance of the actual and potential links between agriculture and the rest of the rural economy, or any indication that such actual and potential linkages will be pursued effectively and consistently.

Improvements in the selection criteria for specific measures and sub-measures.

Some modification of selection criteria of specific measures could lead to more targeted forms of RDP support. Without neglecting the practical restrictions associated with the fact that MS are in the middle of the current programming period, modifications could be made which aim at enhancing links between agriculture and the rest of the rural economy and at facilitating economic transformation in areas currently facing agricultural adjustment. Possible options could include:

- the specification of higher scores (selection criteria) in the case of economic diversification projects which "commit" to link with local agricultural activity (e.g. food processing and tourism unit buying utilizing local agricultural products);
- the better targeting of environmental objectives (which trigger economy-wide benefits) through the inclusion of criteria such as location, farming type/system, environmental conditions, etc.

Further, a re-distribution of axis 3 budgets in favour of measure 311 (which is eligible to farmers) could be considered as an option, especially in the case of areas facing agricultural adjustment.

Improvements in the design of specific projects

In terms of improvements in the design of specific projects, possible options could include:

- a) more effective provision of technical support to potential investors, in order to both enhance the potential viability of projects and "reassure" links with local agriculture;
- b) the obligation (for each potential investor) to submit a marketing plan for the products of the proposed investment.

Improving EAFRD Delivery Mechanisms

In terms of operational systems, the practical weaknesses in delivery systems that have been identified clearly need to be addressed with urgency, but it is equally important that project proposers, especially small farmers and SMEs generally, are provided with advice and support in making submissions against such criteria, and are not left to compete unevenly against larger companies, or to resort to commercial companies to develop submissions on their behalf.

Specific obstacles to be overcome

In terms of specific obstacles to progress, especially for smaller firms, the following were highlighted during the local area investigations:

- onerous procedures for applying for funding and administrative/licensing obstacles;
- infrequent commitments rather than continuous funding possibilities;
- delays in getting agreements with respect to project proposals;
- delays in receiving payments for projects on which commitments have been made or which are already in progress, and;
- lack of transparency and openness of institutions/administrative support services in relation to applicants, especially those with limited previous experience.

The importance and exact nature of the obstacles differ between different MS and RDPs, nevertheless all of them can, at least in significant part, and should be addressed by the relevant Managing Authorities without delay. More broadly local administrations could also play an important role in reducing those problems/obstacles identified, which are not within the direct give of the RDP Managing Authority to influence. Specifically, bottlenecks in licensing and planning.

With regard to access to finance, the ease with which financial support can be accessed by promoters of projects, notably SMEs and micro-businesses, both through commercial banking services of various kinds, as well as the variety of national and European public funds that are available is extremely important.

Enhancing the institutional environment

Evidence from the case studies concerning practical experiences of project support indicates that, despite the apparent policy and institutional weaknesses, a wide range of successful projects are being developed that create or promote linkages between agricultural activities and other areas of the local rural economy, although the overall situation cannot be described as satisfactory.

In practice, it is local people who are the main drivers in building linkages in rural economies – helped by the fact that social and economic relationships are generally stronger and closer than in urban areas, but hindered by the fact that the economic options are generally more limited or constrained. Despite obvious difficulties, there are many positive examples of local people willing to work to improve their economic and social environment as individual farm owners or entrepreneurs, or through a wide range of formal and informal social and business networks, whether these are commercial or otherwise.

In some cases, project and policy initiatives and change depend primarily on individuals, whether these are farm or other business owners. In other cases, such initiatives come from formal or informal groups, generally representing collective interests, whether these are commercial or otherwise. In all cases, however, those concerned are likely to be particularly aware of the potential impact of their actions on their local economy as well as on themselves. Just as important, if not more so in many cases, is the

possibility to draw on various social networks, formal and informal, that can inform and support their initiatives.

In all cases, it appears, while such actors are aware of the potential benefits of their actions for the local economy and themselves, they can clearly be encouraged or discouraged in taking initiatives by the policy criteria or local institutional arrangements in place, as well as the extent to which specialist advice and support is available. Project initiators can also benefit, or not, from the presence of specialist agencies or institutions.

Their importance is illustrated in the case study on the Dairy processing plant in Kalmar, Sweden which received technical assistance from the regional Kalmar University as well as commercial assistance from the Coop and ICA food chains, but this was also the case in relation to the energy and environmental initiatives described in Hungary, the Czech Republic and Sweden where a mastery of the technical and legal requirements concerning both production and connection to electricity supply networks is essential.

This complexity involved in mobilising support and the need to establish wide-ranging cooperation has been found in many of the cases. In project level initiatives, local people can be supported or discouraged by local institutional arrangements, and evidence of both has been found. When a lack of policy coherence is combined with unhelpful institutional arrangements, the costs can be high in terms of the additional efforts that have to be made by project promoters, delays in obtaining agreements and payments, etc., and the results can, in consequence, be sub-optimal.

The implication for policy is that to be effective, the institutional environment at the regional and sub-regional levels must be flexible, enabling and include the active involvement of local stakeholders. No single model can or should be promoted, but the principles articulated above should be taken into account in all decisions which have the potential to improve the institutional environment.

4.3 Future programming period

The architecture of the post-2013 CAP is not yet defined. What is proposed for consideration in this section assumes, nevertheless, that:

- the CAP will continue to have two pillars, with broadly the same types of instruments within each as currently;
- the structural framework of the rural development programming process will remain essentially the same as at present, with a NSP (whether or not this remains a stand-alone document) and individual RDPs;
- the development process for the RDPs will continued to include the definition of specific needs and objectives (currently this is done through a SWOT analysis).

Recognition of the multiplier effects of agriculture

The quantitative analysis conducted relating to 18 representative NUTS3 regions drawn from across the EU, demonstrated that the linkages between primary agriculture, food processing, tourism and trade (both on and off farm, large and small scale) are above average and predominate above other types of linkages in rural areas, irrespective of the scale of agricultural activity in the region.

This finding is important, providing evidence to support, generally, the often made assumption that supporting agriculture has wider benefits for the rural economy and going one stage further, indicating

that its forward linkages are strongest. In regions where detailed quantitative analysis regarding linkages between different economic sectors is not available, and where there are no known specificities to the contrary, it would be reasonable to assume the existence of high – within region – forward agricultural linkages in:

- the conduct of the region's SWOT analysis;
- the development of the RDPs objectives and selection of measures.

Embedding linkages between agriculture and other sectors in the policy framework

In terms of *policy coherence and consistency* between national, regional and local level policy goals and measures, the analysis conducted found that the goal of strengthening linkages between agriculture and the wider rural economy does not appear to be adequately embedded in the majority of RDPs, with similar objectives often pursued under different axes, and little complementarity between the EAFRD interventions and support from other sources. Moreover, the structure and nature of *institutional arrangements* vary greatly between MS. Some systems ensure consistent planning and delivery, but others (notably highly centralised ones, and those with limited co-ordination) do not.

The need to adapt actions to new challenges is being taken into account into the EU's current policy on agriculture and rural development, but this local level research suggests that more attention needs to be paid to the development of synergies between agriculture and the wider rural economies. In particular, rural development policy objectives and programmes that merely indicate *eligible areas of intervention, and the types of support* measures available, are not sufficient to achieve this.

In practice, the findings of the TWG2 analysis indicate that a more cross-cutting integrated, and proactive and strategic approach is required, focused on actions that will *deliver desired economic and social outcomes* defined in terms such as:

- the creation, preservation, or diversification of *jobs and activities*;
- the generation of rising or additional *incomes*;
- the strengthening of local *capacity to cope with change*.

The NSPs and RDPs (or their future equivalent) should explicitly recognize the importance of sectoral linkages and set up an enabling legislative framework. They should provide flexible and effective institutional arrangements, particularly at the regional and sub-regional level.

Territorial targeting

The evidence provided in this report suggests that, in terms of territorial targeting relevant to meet identified challenges, it may be helpful to distinguish three broad types of rural areas:

- distressed rural areas – notably in some of the new MS, where agriculture is in decline and new activities are slow to develop - which warrant wide-ranging economic and social support similar to that given to distressed areas of inner cities;
- specialised agricultural rural areas, which continue to focus successfully on agriculture as a core activity, but which could nevertheless benefit from modest diversification in order to maintain continued growth and prosperity;

- diversified rural areas – the most common type in most countries - where agriculture is no longer a dominant part of the region's economic and social structure, but which nevertheless plays an important part in maintaining vitality and local character.¹³

This does not necessarily mean that the types of assistance for rural development should vary but it does suggest the need for all regions at different levels, NUTS2, NUTS3, and smaller sub-regions within the NUTS3 regions as identified in this report – to have *clear and transparent strategic plans* that:

- reflect their specific challenges, and include *realistic responses and attainable objectives*, bearing in mind the potential and capacity of the areas and their populations;
- indicate ways in which the EAFRD, in *association with the other structural funds*, can best contribute and co-operate to achieving those ends, with *operational plans* that make funding for projects specifically dependent on their promoters demonstrating their contribution to the achievement of the wider goals of the local economy, and not simply meeting specific project-based criteria.

The analysis of the 18 NUTS3 regions clearly shows a high degree of diversity *within* NUTS3 regions in terms of the composition and distribution of activities with, typically, different parts of the regions being separate 'local economies' with their own specialisations, being focused on different activities to differing extents: agriculture of many kinds, forestry, fishing, energy production, tourism and recreation of a variety of many types (hill-walking, visiting historic sites, pleasure parks, sports, arts, craft production etc)¹⁴.

These findings suggest that, for there to be a better territorial targeting of policy interventions, future programming should be more based on sub-regional specificities that meet both EU and MS policy objectives and needs, and (amongst other things) take into account the links between Pillars 1 and 2 (which are often area-specific).

An integrated approach towards the provision of public goods

The project level evidence generated by the analytical activities demonstrated wider benefits resulting from operations primarily aimed at generating economic gains. These include both environmental and social (i.e. rural vitality) public goods. Indicatively, new food processing (e.g. in Vysocina and Gers) specialist food (e.g. in Somogy) tourism (e.g. Kalmar län) and renewable energy (in Somogy, Vysocina

¹³ As the TERESA 6th Framework study has noted, 'intensive high-nature value/tourist regions do not necessarily have an intensive agriculture' <http://www.teresa-eu.info/>

¹⁴ Attempts to develop EU-wide rural typologies in recent years (which include: (i) Backlund, A.K., Alkan-Olsson, J. and Schenk, A. (2008). Case Studies Final Report. Deliverable 5.4. RUFUS FP7 Project. Hannover; (ii) Fleury, P., Jauneau, J.C. and Noury, J.M. (2009). Policy Options for Rural Development. Deliverable 5.4. TERESA FP6 Project. Chambéry; (iii) Weingarten *et al.*, 2009; (iv) Copus, A., Courtney, P., Dax, T., Meredith, D., Noguera, J., Talbot, H. and Shucksmith, M. (2010). EDORA Final Report. ESPON 2013. Inverness: UHI Millennium) serve to offer caution with a wide variation in the number of variables addressed (too many in some cases; too few in others), the specification of either too many (non-operational) or too few (too general) types of areas, and their difficulties to link structural characteristics, economic conditions with the RDP framework generates scepticism on their potential utilization for RDP programming purposes.

and Kalmar län) units are promoting farm production methods which are beneficial to the local environment as well various forms of environmentally-friendly energy production. Further, projects of a rather “collective” nature have been assessed to offer wider benefits of a social character, including the promotion of rural vitality (e.g. Lamb Dolomiti Lucane in Italy) and social cohesion (Tiree rural centre in the UK).

Within this context and taking into account that rural decline is not restricted to economic issues but is arguably “extended” to the degradation of natural resources and social fabric, the architecture of the new policy should explicitly recognize and form an enabling environment for designing in the maximization of such wider benefits. More specifically, the detailed articulation of ways to meet objectives and the definition of measures should explicitly recognize the wider – public goods – benefits that accrue from interventions designed primarily to have positive economic benefits and – in particular – that these wider benefits are more likely to be generated by multifaceted interventions.

Measure level selection criteria

The fact that agriculture has been identified in the analytical work underpinning this report as a key sector within most local rural economies (in the sense that changes in agricultural activity have a greater than average impact on overall activity in the area than do changes in activity in other sectors) suggests that this economic aspect should be specifically taken into account in the development of *selection criteria* for projects.

Likewise, the importance of agriculture in providing a ‘visual backcloth’ for much other economic activity in rural areas has to be given much greater prominence and more explicitly taken into account. Among the 18 rural areas covered in this research, agriculture accounted for 5% or less of GDP in a majority of cases, yet much of the tourism, transport and other service sector activity in those regions depend on the maintenance of the countryside in a form that attracts people to live and work there, or to visit. These benefits could also be explicitly recognized in the development of selection criteria for projects.

These ‘external benefits’ of agriculture – whether related to visual attractions, gastronomic pleasures etc. - are widely recognized by those people working to promote the attractions of rural areas, but they need to be taken much more explicitly into account within the overall equation of factors encouraging rural development and economic and social vitality in the areas concerned.

Annex: Additional tables and figures

Table A1: Ghosh Supply-Multipliers and Industry Interconnectedness Indicators

	Input-output results	NUTS code	REGION (NUTS 3 level)	Ghosh Multipliers (labour supply effects)	Interconnectedness Indicators (diversification potential)
Northern	Austria	AT124	Waldviertel	1.8	4.1
	Sweden	SE213	Kalmar län	2.2	4.8
	Germany	DE22A	Rottal-Inn	2.2	3.9
	Netherlands	NL342	Overig Zeeland	1.7	4.7
	Germany	DE218	Ebersberg	2.0	2.9
	United Kingdom	UKL12	Gwynedd	2.5	2.6
Southern	Italy	ITF52	Matera	2.6	1.6
	France	FR624	Gers	2.1	6.3
	Italy	ITE31	Pesaro-Urbino	2.9	0.7
	France	FR831	Corse-du-Sud	2.6	3.7
	Spain	ES211	Álava	2.1	1.4
	Greece	GR144	Trikala	2.5	6.1
Newer MS	Hungary	HU232	Somogy	1.7	4.8
	Romania	RO422	Caras-Severin	2.5	6.3
	Slovakia	SK032	Banskobystricky kraj	2.2	4.9
	Latvia	LV007	Pieriga	1.9	6.5
	Czech Republic	CZ063	Vysocina	1.6	5.4

Table A2: Direct and Indirect Water and Land Consumption

Economic Sectors/Water Consumption (m3 per ml EUR)	Trikala (GR144)	Matera (ITF52)	Alava (ES211)
Agriculture Total	911742	6641155	1122045
Agriculture Indirect (as % of total)	0.10%	0.05%	0.35%
Manufacturing	31884	340512	27395
Food Processing	236982	162625	65689
Public Administration	142853	36773	35833
Hotels & Catering	93591	198453	36391
Economic Sectors/Land Consumption (hectares per ml EUR)	Ebersberg (DE218)	Alava (ES211)	Corse-du-Sud (FR831)
Agriculture Total	282.08	1965.91	544.70
Agriculture Indirect (as % of total)	0.01%	0.01%	0.02%
Manufacturing	10.42	38.70	7.37
Food Processing	11.49	90.93	95.01
Public Administration	10.83	33.32	12.79
Hotels & Catering	9.08	32.02	15.88

Table A3: National and Regional populations 2007

Country	NUTS code	Region (NUTS 3 level)	National population (in 1000)	Regional Population (in 1000)	
Northern	Austria	AT124	Waldviertel	8,315.6	221,500
	Sweden	SE213	Kalmar län	9,148	233,800
	Germany	DE22A	Rottal-Inn	82,267	119,390
	Netherlands	NL342	Overig Zeeland	16,381.7	273,100
	Germany	DE218	Ebersberg	82,267	125,432
	United Kingdom	UKL12	Gwynedd	60,980.1	118,300
Southern	Italy	ITF52	Matera	59,375.5	203,700
	France	FR624	Gers	63,825.6	181,900
	Italy	ITE31	Pesaro-Urbino	59,375.5	373,300
	France	FR831	Corse-du-Sud	63,825.6	136,900
	Spain	ES211	Álava	44,879.1	304,600
	Greece	GR144	Trikala	11,192.6	130,700
Newer MS	Hungary	HU232	Somogy	10,055.7	326,800
	Romania	RO422	Caras-Severin	21,546.6	327,400
	Slovakia	SK032	Banskobystricky kraj	5,397.2	655,200
	Latvia	LV007	Pieriga	2,276.1	376,800
	Czech Republic	CZ063	Vysocina	10,334	512,700

Figure A1: Study Regions GDP, million EUR, 200

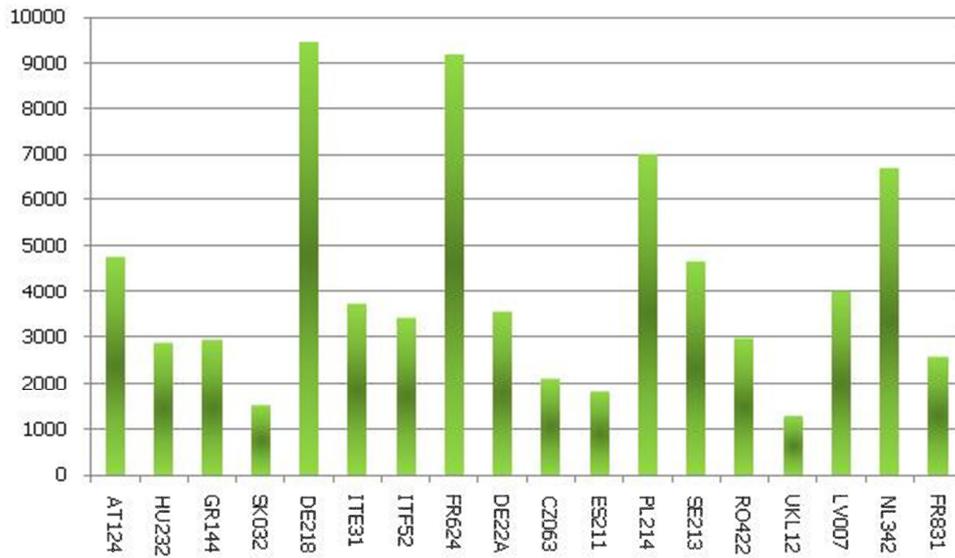


Figure A2: Percentage population change in study regions, 2000-2006

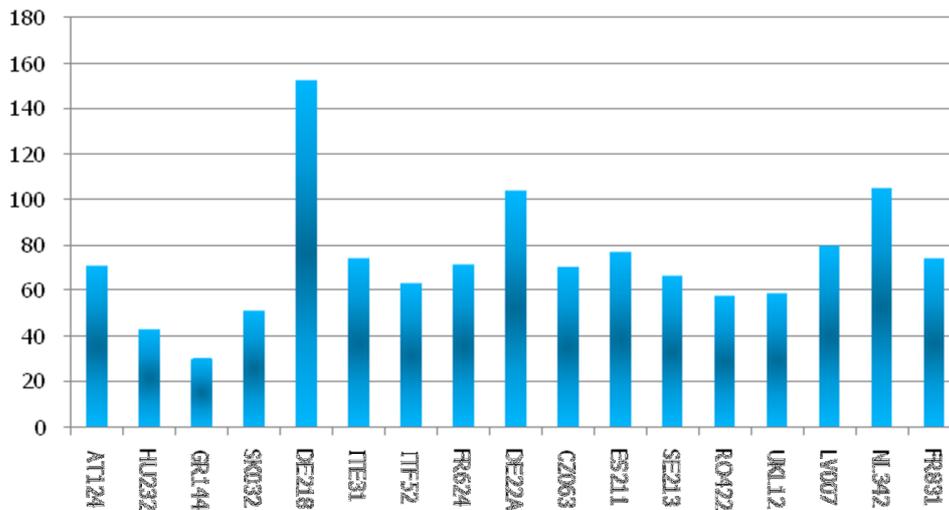


Figure A3: Average labour productivity EUR per AWU, 2005 (or nearest year available)

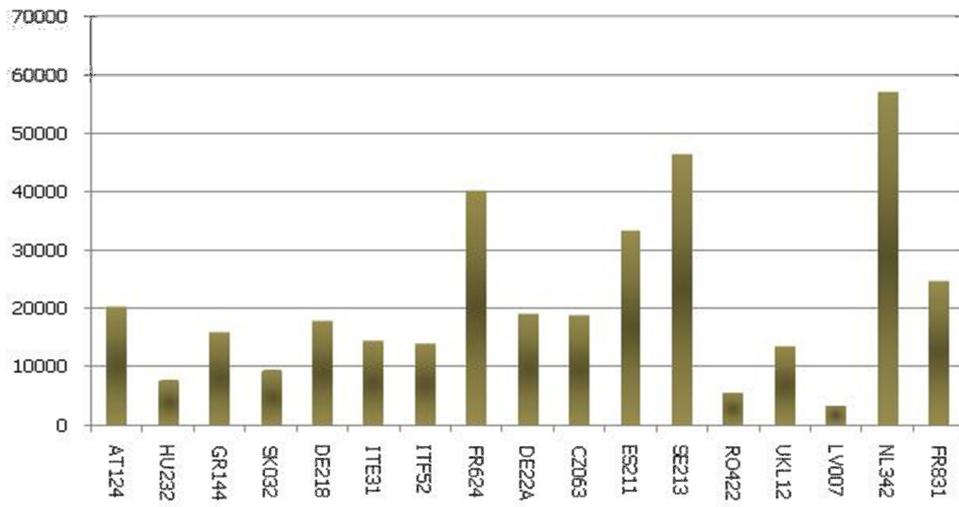


Figure A4: Average land productivity, EUR per Ha, 2005 (or nearest year available)

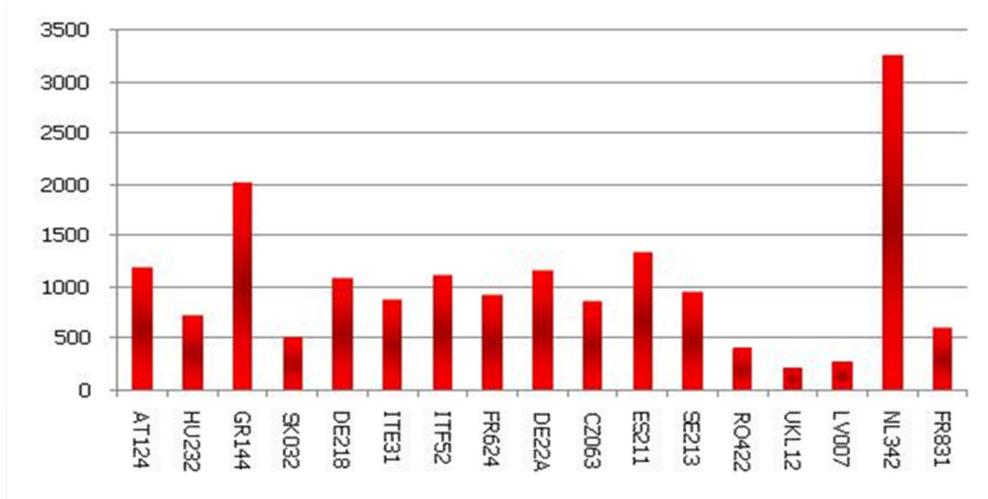


Table A4: Change in Agricultural Employment, % (1995-2005)

	Country	NUTS code	Region (NUTS 3 level)	Change in Agricultural Employment (%)
Northern	Austria	AT124	Waldviertel	-16.2
	Sweden	SE213	Kalmar län	-33.7
	Germany	DE22A	Rottal-Inn	-30.6
	Netherlands	NL342	Overig Zeeland (2001-2005)	-9.1
	Germany	DE218	Ebersberg	-13.5
	United Kingdom	UKL12	Gwynedd	n.a
Southern	Italy	ITF52	Matera	-28.0
	France	FR624	Gers	-6.6
	Italy	ITE31	Pesaro-Urbino	-7.6
	France	FR831	Corse-du-Sud	12.5
	Spain	ES211	Álava	2.0
	Greece	GR144	Trikala (2000-2005)	-24.9
Newer MS	Hungary	HU232	Somogy	-14.4
	Romania	RO422	Caras-Severin (2000-2005)	-74.7
	Slovakia	SK032	Banskobystricky kraj	-49.5
	Latvia	LV007	Pieriga	-22.2
	Czech Republic	CZ063	Vysocina	-28.4

Table A5: % of semi-subsistence farming and additional income

	Country	NUTS code	Region (NUTs 3 level)	Subsistence farming 2007	Other gainful employment
Northern	Austria	AT124	Waldviertel		
	Sweden	SE213	Kalmar län	16.4%	55%
	Germany	DE22A	Rottal-Inn		
	Netherlands	NL342	Overig Zeeland	0%	30%
	Germany	DE218	Ebersberg		
	United Kingdom	UKL12	Gwynedd	45.8%	
Southern	Italy	ITF52	Matera	23.1%	30%
	France	FR624	Gers		
	Italy	ITE31	Pesaro-Urbino		
	France	FR831	Corse-du-Sud	12.2%	
	Spain	ES211	Álava		
	Greece	GR144	Trikala	16.3%	30%
Newer MS	Hungary	HU232	Somogy	83.1%	40%
	Romania	RO422	Caras-Severin	67.7%	40%
	Slovakia	SK032	Banskobystricky kraj	75.9%	35%
	Latvia	LV007	Pieriga	64.8%	40%
	Czech Republic	CZ063	Vysocina	27.6%	

Figure A5: The Less under 35 to over 65 Age Ratio in the Study Areas to the respective Country Ratio, 2005 or closest available year

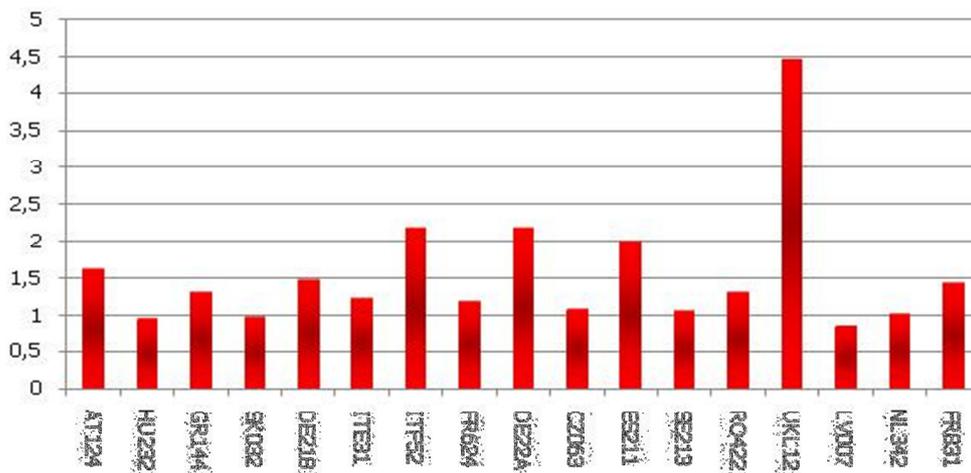


Table A6: Education and training – regional level (we will send you tomorrow morning updated information on this)

	Country	NUTS code	Region (NUTS 3 level)	Secondary education 2001 %	Managers with agricultural training 2005 %
Northern	Austria	AT124	Waldviertel	58	n.a.
	Sweden	SE213	Kalmar län	n.a.	40.5
	Germany	DE22A	Rottal-Inn	n.a.	n.a.
	Netherlands	NL342	Overig Zeeland	45	71.5
	Germany	DE218	Ebersberg	n.a.	n.a.
	United Kingdom	UKL12	Gwynedd	31	20
Southern	Italy	ITF52	Matera	41	10.6
	France	FR624	Gers	50	58.4
	Italy	ITE31	Pesaro-Urbino	40	9.0
	France	FR831	Corse-du-Sud	42	36.2
	Spain	ES211	Álava	25	13.3
	Greece	GR144	Trikala	25	9.9
Newer MS	Hungary	HU232	Somogy	62	11.7
	Romania	RO422	Caras-Severin	51	2.4
	Slovakia	SK032	Banskobystricky kraj	42	18.1
	Latvia	LV007	Pieriga	n.a.	33.6
	Czech Republic	CZ063	Vysocina	78	51.7

Table A7: Forest land at national and regional level

	Country	NUTs code	Region (NUTs 3 level)	National % forest and other wooded land	Regional % forest and other wooded land
Northern	Austria	AT124	Waldviertel	48	42
	Sweden	SE213	Kalmar län	75	68
	Germany	DE22A	Rottal-Inn	32	21
	Netherlands	NL342	Overig Zeeland	11	2
	Germany	DE218	Ebersberg	32	35
	United Kingdom	UKL12	Gwynedd	12	14
Southern	Italy	ITF52	Matera	37	17
	France	FR624	Gers	31	9
	Italy	ITE31	Pesaro-Urbino	37	24
	France	FR831	Corse-du-Sud	31	35
	Spain	ES211	Álava	56	39
	Greece	GR144	Trikala	51	27
Newer MS	Hungary	HU232	Somogy	21	28
	Romania	RO422	Caras-Severin	29	56
	Slovakia	SK032	Banskobystricky kraj	40	49
	Latvia	LV007	Pieriga	49	46
	Czech Republic	CZ063	Vysocina	34	29