TWG No 2 – Linkages between agriculture and the wider rural economy

Summary of initial I/O and regional analyses findings

15 October 2009
Executive Summary

This report provides a summary of the findings from a study undertaken by the Contact Point of the European Network for Rural Development (CP ENRD) as part of the support to the ENRD Thematic Working Group No.2, ‘Agriculture and the Wider Rural Economy’. The objective of the study was to identify and describe the relationships, and potential synergies/conflicts, between agriculture and the wider rural economy in various types of EU rural areas. This was to be done through a combination of both quantitative and qualitative analysis, namely through the undertaking of:

- The selection of 18 representative rural NUTS3 regions exhibiting different ‘rurality’ characteristics (such as remote regions, mountainous regions, areas under environmental pressure etc.);
- An input-output analysis of structural economic relationships (quantitative) within the above representative NUTS3 regions in fifteen Member States;
- An investigation - through eighteen more qualitative case studies, undertaken in the same regions – of regional dynamics, the relationship between agriculture and other sectors and the interaction between the various physical, economic, human, institutional, cultural and environmental factors in each region.

The analysis was also designed to guide a potential classification of each region, according to several criteria, including the relative importance of agriculture, with a view to facilitate a comparative analysis of the situation between regions.

(i) Initial results: The initial results from the I/O and case study analyses indicate the following:

- **Agriculture is an influential contributor to all rural regional economies:** The analysis reveals the influential role of agricultural production in terms of forward linkages (supply) within regional economies. And importantly, the analysis indicates that even when agriculture represents a relatively small share of the Gross Value Added within a regional economy, the level of positive indirect benefits in areas such as tourism, trade, recreation and leisure can be highly beneficial to that region, in terms of employment and income.

- **Complexity and variance:** There is a high degree of complexity and variance both within and between regions, providing a range of conflicting indicators, in terms of current and future development potential for agriculture and rural diversification. This complexity can only be fully understood by more in-depth and localized analysis of a region and the inter-connections within and between sectors (and sub-sectors).

- **Lack of homogeneity/common typologies:** The discernible patterns that emerge from analysis at NUTS3 level appear to have exceptions, suggesting that – based on the analysis applied to date - when applied on a wider basis, there is unlikely to be any reliable regional typologies possible to be developed, at this geographic level.

- **Common factors and their inter-relations:** It is the balance and mix of natural resources, economic linkages and human resource capacities and their relative strengths and/or weaknesses that appear to determine the overall performance of a region. The weakness of one factor tends to be compensated by others. This local response capacity to
regional constraints appears to underline the importance of investing in more bottom-up, localized planning and programming.

- **The richness of good examples that exist in all regions:** The case studies reveal a wide range of innovative and successful examples of agriculture and its impact on the wider rural economy. In many cases these examples demonstrate the ability of people to respond and adapt to changes in their region and opportunities that emerge in the local economy. However, such examples appear to be somewhat scattered and inconsistent. Nevertheless, this experience is potentially a highly valuable resource for current and future policy implementation and to inform future planning and programming at all levels, provided effective mechanisms can be put in place to capture and disseminate such experience to relevant rural stakeholders both within and between regions.

- **The driving forces of diversification:** Diversification tends to occur in areas where there are real alternatives. In areas where there is no strong diversification trend, this tends to be linked to the lack of viable alternatives. Where diversification policies have been aggressively promoted they have tended to result in more short term and less sustainable outcomes.

- **Competition for resources:** Results have identified only limited conflicts over resources. However, this may be a more significant problem in other areas than those covered by this analysis. Conflict is likely to be focused around particular-climate areas (other than those selected for this study) e.g. conflicts over the use of coastal waters; conflict over land use, particularly in peri-urban space. In addition, evidence suggests that conflicts over energy may well grow, as more demand for alternative energy sources increase, with wind farms and bio-energy production plants placing increasing demands on certain environments.

- **The case for greater specialization:** Where agriculture is a significant economic sector in a region, this tends to offer the best opportunities for greater specialisation and investment, building on the relative strengths and opportunities of that region, rather than seeking to increase the level of diversification out of agriculture.

- **The importance of entrepreneurship:** There appears to be a clear divergence between regions in the level of entrepreneurship both for on-farm and off-farm business activities. Further analysis is needed to understand the main reasons for this. There does not seem to be any strongly correlation by regional type or situation, although it seems weakest in case study areas in the new MS. Identifying the practical measures that can and have been taken to bring about improvements for agri-businesses such as: education and training; joint action by local groups; co-operation and exchanges with regions with similar challenges; technical support to entrepreneurs etc. should be further explored.

- **Overcoming administrative barriers:** The extent of constraints to development of new initiatives that can promote improved links between agriculture and the wider economy appears to be a key factor, affecting regional performance. Those areas reporting high levels of administration, cumbersome tax systems etc. and slow or weak institutional capacity/support to overcome such barriers, appear to be closely linked to the level of dynamism and strength of links between agriculture and the wider economy within a particular region.

- **Absorption capacity of a region:** 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. The lack of human dynamism in a region tends to be reflected in the level of economic dynamism.

(ii) Possible implications: These initial results suggest the following:

- **Agriculture support:** The case for continued high levels of support to agriculture (and rural development) needs to factor in the important indirect role, linkages and value-added it provides to other parts of the economy. Where agricultural production is considered in isolation within a local economy its economic importance may be severely under-represented and possibly undermined in the future.

- **Promoting ‘bottom-up’ analysis:** For regional specificities to be properly taken account of in the policy process there is a need to strengthen the level, depth and frequency of analysis of rural areas at local and regional level, to understand better the various inter-related relationships and their dynamics. Greater account needs to be taken of the different regional dimensions such as the potential for tourism, the scope for alternative energy development; the scope for agricultural and non-agricultural diversification, the access to educational or institutional support etc. in the planning and programming process. Tools to measure these potentials need to be further elaborated and tested.

- **Improving the RD programming process:** Using insights gained through such analysis to better guide development of regional rural development programmes, selection of specific measures, definition of criteria for eligibility and payment of support is likely to provide the best chances of improved targeting of support, increasing the positive impact of funding and improving the general situation in rural areas.

- **Avoiding the use and application of simplified typologies for policy purposes:** Greater investment in developing and combining qualitative and quantitative analytical approaches and methods, rather than reliance on more simplified indices, categories or groupings, is likely to prove more valuable in guiding future support.

- **Utilising good practice examples:** The value of good practice comparisons, using targeted case studies, can provide real insight into the dynamics of a region and its relative strengths, weaknesses, opportunities and threats. Such analysis can, when developed effectively, be used to guide improvements in the overall efficiency and effectiveness of current and future RD support.

(iii) TWG2 implications: The possible implications of these findings for TWG2 future actions:

- **To refine the approach and methods proposed for step 3 of the work programme for the group:** To build upon the findings from step 1 & 2, it is proposed not to elaborate further on any possible ‘typology’ of rural areas but rather to focus upon identifying, in greater detail, key factors for success in enhancing the linkages between agriculture and the wider rural economy, linked to the implementation of policies and projects in specific areas.

- **Test the use and application of targeted case studies:** The level of detail provided by the I/O and Case studies has been informative but not sufficient. Attempting to cover eighteen regions, in fifteen countries, with varying degrees of data and information constraints, has resulted to date in limited success in terms of meeting the objectives of this stage of the TWG work. Concentration on a smaller number of regions and allowing more in-
Depth analysis to be undertaken is likely to offer a more effective way forward to guide group conclusions and recommendations.

- **Extend the I/O analysis in targeted regions:** By focusing on a more limited number of regions, more detailed analysis and inclusion of new variables can be considered that may allow, for example, more detailed disaggregation of agriculture and food processing; inclusion of forestry as a sector; greater disaggregation of the leisure and tourism industries. This would be done by use of targeted interviews using structured questionnaires in each region for representative units or/and local stakeholders. These results would then be collected, collated and analysed, building on the original I/O analysis outcomes.

If the above proposals are supported by the TWG, practical follow-up actions could include:

- Selection of up to six targeted regions (selecting two per cluster) in which the case studies analysis will take place.

- Setting clear parameters for the case studies analysis including definition of:
  - The targeted sub-sectors to be analysed.
  - The relationships to be assessed.
  - The overall definitions of success for the outcomes from the analysis which may include: (i) Identification of the factors for successful replication of such examples; (ii) Identification of mechanisms for dissemination.

**Please note:** The above summary conclusions and proposed next steps are provided for Thematic Working Group 2 discussion purposes only and should not be considered as final outcomes from the initial analysis.
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### Acronyms and Abbreviations

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<tr>
<td>ADD</td>
<td>Agriculturally-Dependent Dynamic (cluster)</td>
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<tr>
<td>AE</td>
<td>Agri-environment</td>
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<td>CP</td>
<td>Contact Point (of the EN RD)</td>
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<td>DDA</td>
<td>Diversified Dynamic Area</td>
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<td>DG AGRI</td>
<td>Directorate General for Agriculture and Rural Development</td>
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<td>DG REGIO</td>
<td>Directorate General for Regional Policy</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EAFRD</td>
<td>European Agricultural Fund for Rural Development</td>
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<td>EN RD</td>
<td>European Network for Rural development</td>
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<td>EU</td>
<td>European Union</td>
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<td>FTE</td>
<td>Full Time Equivalent</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GVA</td>
<td>Gross Value Added</td>
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<td>GRIT</td>
<td>Generation of Input Output Tables</td>
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<td>Ha</td>
<td>Hectare</td>
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<td>I/O</td>
<td>Input-Output (analysis)</td>
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<tr>
<td>IOR</td>
<td>Intermediate Open-space Regions</td>
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<td>LFA</td>
<td>Less Favoured Area</td>
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<td>MA</td>
<td>Managing Authority</td>
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<td>MS</td>
<td>Member State</td>
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<td>ND</td>
<td>Non-Dynamic Area</td>
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<td>NUTS</td>
<td>Nomenclature of Territorial Units</td>
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<td>NRN</td>
<td>National Rural Network</td>
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<td>NSP</td>
<td>National Strategic Plan</td>
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<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
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<td>RAR</td>
<td>Rural Accessible Areas</td>
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<td>RD</td>
<td>Rural Development</td>
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<td>RDP</td>
<td>Rural Development Programme</td>
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<td>RPR</td>
<td>Rural Peripheral Region</td>
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<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats (analysis)</td>
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<td>UAA</td>
<td>Utilised Agricultural Area</td>
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1 Introduction and overview of the analysis approach and methodology

This report provides a summary of the findings from a study undertaken by the Contact Point of the European Network for Rural Development (CP ENRD) in support of ENRD Thematic Working Group No.2, ‘Agriculture and the Wider Rural Economy’. The objective of the study was to identify and describe the relationships, and potential synergies/conflicts, between agriculture and the wider rural economy in various types of rural areas. This was to be done through a combination of both quantitative and qualitative analysis, namely through the undertaking of:

- the selection of 18 rural NUTS3 regions exhibiting different ‘rurality’ characteristics (such as remote regions, mountainous regions, areas under environmental pressure etc.);
- an input-output analysis of economic relationships within these targeted representative regions;
- case studies from each of these regions which would explore the dynamics of each region and the interaction between the various physical, economic, human, institutional, cultural and environmental factors.

The analysis was designed to study these relationships and classify them according to several criteria, including the relative importance of agriculture using input-output (I/O) analyses of relevant data, based on the GRIT (Generation of Input Output Tables) technique, combining national I/O tables and sectoral employment data at national and regional level. The aim of the I/O model was to document flows of money (transactions) relating to different economic activities in each region. Having identified these relationships it was then possible to compare the situation across types of regions. To address the various issues, data was assembled/analysed in respect of the following economic indicators:

- backward and forward linkages – to measure demand between different sectors;
- industry ‘inter-connectedness’ – to indicate the degree of outsourcing and diversification by measuring transactions (direct and indirect) between industries;
- input-output elasticities - to take account of the relative size of sectors and to identify key sectors in the regional economy;
- value added and multipliers - to estimate the impact of changes in final demand on value-added (i.e. capital);
- employee compensation/incomes - to estimate the importance of each sector in terms of employment;
- supply-driven multipliers - to estimate the capacity of supply to respond to changes in final demand.

Where possible, 2005 data was used (avoiding the effects of NUTS3 changes in 2007/8) and making appropriate estimates, or using appropriate proxies, where data was not available, including for GDP or agriculture at NUTS3 level.

In order to investigate the extent of synergy and inter-dependence between agriculture and the rest of the rural economy, all 1,303 EU NUTS3 level regions of the 27 Member States were classified on six criteria:

- Degree of importance of agriculture
- Importance of the food industry
- Importance of tourism (measured in terms of natural resources and accommodation)
- Demographic changes
- Competition for water
- Competition for land
The analysis then focused on 3 types of rural areas (out of the 6 available under the refined OECD typology), covering 45% of all NUTS3 regions, sub-divided as follows: (i) Rural peripheral areas – 10% of regions; (ii) Rural accessible areas – 20% of regions; (iii) Intermediate open space areas – 15% of regions. A pragmatic, two-stage, approach was adopted in clustering the 583 regions (45% of the original 1303) covered by the 3 OECD categories, through a processes of iteration with respect to data on the first 4 elements, followed by procedures to incorporate information on the remaining 2 issues, namely conflicting demands for water and land resources (where data was not available for all regions). As a result three clusters of area were identified:

- **Non-dynamic (ND) areas**: Characterised by low to average importance of agriculture; Low contribution of the food industry; Medium availability/proximity of resources for tourism development; Stagnant population
- **Agriculturally-dependent dynamic areas with low internal links (ADD)**: Characterised by important contribution of agriculture to total regional value-added; Medium importance of the food sector; Medium importance in terms of availability and proximity of resources for tourism development; High population changes
- **Diversified dynamic areas with high linkages (DDA)**: Characterised by medium importance of agriculture; Very high importance of the food industry; High importance of tourism; Medium to high population growth

18 areas from 15 different Member States were then selected, included regions from large and small and ‘new’ and ‘old’ Member States, 2 regions with pressure on water resources, 2 with pressure on agricultural land, 1 with pressure on water and land, and 2 selected as mountainous. The clustered areas included:

- **Non-dynamic (ND) areas (▲)**: 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 areas (▲)**: Matera, Italy RPR; Gers, France RPR; Rottal-Inn, Germany RAR; Vysocina, Czech Republic RAR; Alava, Spain IOR; Krakowski, Poland IOR
- **Diversified dynamic areas (▲)**: Kasmar Ian, Sweden RPR; Caras-Severin, Romania RPR; Gwynedd, United Kingdom RAR; Pieriga, Latvia RAR; Overig Zeeland, Netherlands IOR; Corse-du-Sud, France IOR

The map below indicates the selected regions by cluster:
Qualitative regional case studies were also developed in parallel in each region by an expert team, initially based on a broad terms of reference that would allow experts to explore regional dynamics and differences from which more detailed analysis could be developed. Subsequently a template was prepared by the Contact Point that would allow a common structure to be gradually developed, to include the case study results plus certain basic comparative information and data on each region including: Physical geography; History and culture; Demographic patterns; Human, institutional and infrastructure capacities; and other relevant data. Using this quantitative and qualitative information, summary reports were subsequently prepared for each region, also incorporating the main findings from the input-output analyses in each of the 18 regions selected. The individual summaries are provided as annexes to this report. The main findings from the analysis are summarized below:
2 Summary of main findings from the input-output analysis

2.1 Summary of the inter-dependence analysis

The main findings of the inter-dependence analysis are as follows:

- In terms of the provision of non-agricultural goods to the farm sector, all types of estimated linkages are found to be generally low. Agriculture is not a key sector in terms of backward linkages, while the level of out-sourcing by agriculture is mixed.

- In terms of the use of farm output in the rest of the economy, estimated linkages are generally quite significant. Agriculture is a key sector in many areas in terms of forward linkages and has strong forward links with Food Processing and/or Trade and/or Hotels and Catering. More important, there is a clear correlation between high forward links of Agriculture with Food Processing/Trade/Hotels and Catering and high backward and forward links of these three sectors with the rest of the economy. This is a clear indication of win-win situations.

- In terms of supply and demand for production factors, links between Agriculture and demand for capital and labour are rather low. On the other hand, taking the relative size of agriculture into account, employment elasticities are satisfactory in several areas. The economy-wide effects of agricultural labour supply seem to be very high. Direct and indirect water consumption fluctuates considerably amongst areas and is very high in one study area. The same can be argued about land consumption. Finally, farm activity diversification is generally quite satisfactory.

When findings are compared between the three clusters, the following are revealed:

- In terms of provision of non-agricultural goods to the farm sector, linkages are low in the case of ADD, but improve in DDA and ND. Backward linkages are quite low, with the exception of being average in a few areas, while the same happens in the case of output and income elasticities.

- In terms of the use of farm output in the rest of the economy, the highest linkages are observed in ADD and secondarily, in DDA. Forward linkages rank very highly in several study areas in all three clusters, with agriculture often being a key sector. High linkages exist between Agriculture and Food Processing in DDA and ADD. Also, Food Processing is characterized by high backward and forward links with the rest of the economy. High forward linkages between Agriculture and Trade are observed in all types of areas, with Trade linking well with the rest of the economy. Finally, links between farming and hotels and catering are satisfactory in several areas also.

- In terms of supply and demand for production factors, employment impacts are comparatively higher in DDA, but economy-wide effects of agricultural labour supply seem high in all three types of area. Also, demand for both water and land has been found to be higher in ADD.

- Also, the extent of farm activity diversification is satisfactory, especially in DDA.
2.2 Summary of the cluster analysis

The comparative analysis of results within clusters reveals the following:

**In Cluster 1 (Non-Dynamic Areas),** backward effects are very low in Rural Peripheral Areas (RPR), improve in Rural Accessible Areas (RAR) and especially in Intermediate Open Space Regions (IOR). This is due to the narrow economic base of stagnant RPR due to locational disadvantages. In turn, RAR and IOR, despite being non-dynamic seem to have developed the economic base which can "serve" the input-needs of the farming sector. In terms of forward effects, linkages are comparatively lower in RPR, improve in IOR, and especially in RAR. This is due to the high supply-side linkages which seem to occur in the rather closed but not remote RAR. On the other hand, farm output in more open IOR and remote IOR leaks towards other regions and home consumption, respectively. It seems that supply-side linkages are simultaneously affected by location and the adequacy of production to sustain downstream activities. With regards to the links between agriculture and production factors, these are found to be weaker in RPR, improve in IOR and are quite satisfactory in RAR. Here, farming in RPR and (in a less extent) IOR is less important (compared to RAR) in terms of employment, while lower sectoral inter-dependence leads to comparatively low capital and labour effects.

**In Cluster 2 (Agriculturally-Dependent Dynamic Areas),** backward effects are very low in RPR and IOR, but become satisfactory in RAR. This seems due to the fact that the economic base in agriculturally-dependent RAR is structured in a way that it can serve part of the input-needs of local farming. On the other hand, leakages are higher in both RPR and IOR, due to their lower and higher level, respectively, of integration with the rest of the world. Forward effects are high in IOR and secondarily, in RPR and lower in RAR. An interpretation of these findings could centre on the higher supply-side linkages which seem to occur due to the development of a competitive agri-food complex in this agriculturally-dependent IOR. Remoteness and the development of tourism in the two agriculturally-dependent RPR seem to have promoted a rather “internalized” economic system, something that does not hold for the two more accessible RAR. In this sense, peripherality supports localized economies and offsets locational disadvantages. With regards to the links between agriculture and production factors, the picture is quite similar in the three categories of regions.

Finally, in **Cluster 3 (Diversified Dynamic Areas),** the highest backward effects are found in RAR, followed by those in RPR. Backward effects in IOR are considerably low. Here again the economic base in diversified RAR is structured in a way that it can serve the input-needs of local farming. On the other hand, leakages are higher in both RPR and IOR, due to their lower and higher level, respectively, of integration with the other areas. The highest forward effects are observed in IOR. These are marginally higher than forward effects in RPR. Forward effects in RAR are comparatively low. Again, the development of a competitive agri-food complex in these two IOR is associated with high supply-side linkages between farming and the rest of the economy. Remoteness and the development of tourism in the two RPR seem to have promoted a rather “internalized” economic system, indicating the operation of a localized cluster (farm-tourism) economy; on the other hand, leakages are higher in the two more accessible RAR. With regards to the links between agriculture and production factors, these are found to be higher in RAR, followed (quite closely) by RPR. These links seem to be quite low in IOR. Here, the importance of farming in the Latvian and Romanian areas plays a major role, something that does not hold for the two IOR.
2.3 Summary of the case study analysis

The findings from the case studies reveal the following:

a) There is widespread concern among institutions, organisations and the general public in virtually all the case study areas, regarding the likely negative consequences of a decline in agricultural activity in terms of loss of cultural rural heritage, de-population etc., which explains, in part, why there is widespread support for policy initiatives.

b) There may be less explicit recognition of the longer-term consequences for the rest of the local economy of changes in agricultural activity (as illustrated by the I-O analysis) possibly because it is less obvious than the visual changes in the countryside, and the more short-term impact on the lives of the people directly affected.

c) It is not always easy or appropriate to disassociate agricultural diversification from non-agricultural diversification (on or off farm). Most farmers have had to cope with major changes in market conditions for their products, and are no strangers to change. Whether, and how, they diversify depends on many factors. There may be continuing strong links between agriculture and diversity (Trikala + others areas) while a concentration of farming activity may be seen as a condition for long-term survival (Matera).

d) Diversification out of farming poses new challenges, but these depend on the particular circumstances (whether the farms are large or small, their financial resources, their capacity to manage anything new) the potential market in doing other things (whether the area has tourist potential, the proximity of urban areas) as well as the quality and extent of support available from public bodies, local development agencies, local associations etc. An unwillingness to diversify should not always be judged negatively: it may be a rational response to the fact that their activities/livelihoods are in decline, and there is really very little that they can do about it.

e) In areas with clear tourist potential, the emphasis is often particularly on provision of accommodation and the development of family-friendly attractions, some of which are associated with farming. However, the form this takes depends partly on whether these are long-term stays in self-catering (Gwynedd, UK), when hotels and restaurants are less in demand, or short-term, weekend, visits (Banska Bistrica, SK), where such facilities are more important.

f) The capacity to respond to challenges depends on various factors: individual attitudes (perceived as positive in Waldviertel (AT) against negative in Somogy, (HU); collective spirit and co-operation (Matera and Pesaro and Urbino (IT) and Gers (F) against most other areas); the extent of practical support available; and resistance to diversification.

g) There appears to be a clear divergence between regions in the level of entrepreneurship. Further analysis is needed to understand the main reasons for this. There does not seem to be any strongly correlation by regional type or situation, although it seems weakest in case study areas in the new MSs, and strong in (relatively disadvantaged) areas that have strong regional identities in prosperous countries such as Austria and Wales. On the other hand, it is also seen as weak in the Basque country of Spain, despite the strong regional identity and high living standards, possibly because agricultural activity has declined so rapidly, and the farm community has not had time to adjust its thinking. Identifying the practical measures that can and have been taken to bring about improvements such as: education and training courses organised in different ways by different types of bodies for different age groups; the potential from joint action by local groups, whether these be
established producer groups, co-operatives, associations or action groups; co-operation and exchanges with regions with similar challenges, and which have addressed and resolved them in different ways; successful and unsuccessful funding experiences and methods: removal of potential obstacles to new activities in administrative, fiscal or legal arrangements, particularly those that effectively discourage self-employment or the pursuit of incomes from more than one source.

h) Up to half of the farms in many areas are run on a part-time basis, with a significant number being essentially subsistence farming, providing mainly for the immediate family (widespread in Caras-Severin (RO) but commonplace in the less advantaged areas of many relatively poor EU countries). Anecdotal evidence suggests that this appears to be acting as a social and economic ‘shock-absorber’ in the current recession.

i) Public subsidy support for diversification can be positive or a ‘mixed blessing’, developing the administrative skills needed in order to apply successfully for subsidies but potentially substituting one form of subsidy for another (see Banska Bystrica experience (SK), rather than enhancing the broader capacity to develop the economy of the area.

j) The case studies have not revealed very significant conflicts over resources. Such conflicts may in fact be greater, but, for example, limited to particular climatic zones or costal areas (conflicts over the use of coastal waters e.g. fishing versus marinas for leisure craft (Gwynedd, UK) as opposed to areas with inland water). Conflict over land use has also not been identified in the case study areas as significant, although it is relevant at the borders of urban and rural areas. Conflicts over energy may be expected to become more evident in the future, with wind farms and bio-energy production plants putting environmental and economic concerns in opposition.

k) Farm succession is seen as a major problem almost everywhere, against a backcloth of ageing populations (although Trikala (GR) reports some modest increase in the middle age groups) but it seems to be one that will require a wider response than simply calling for more young people to enter farming as a career. Whether the answers lie in areas like career development (leadership, qualifications, education) or whether much more needs to be done to promote quality of life in the areas, and more urban facilities is not clear from the current analysis.

l) Some rural areas (Ebersberg (DE) and Kalmar Inn (SE) are beginning to resemble dormitories with leisure facilities (not least, horse riding) for adjacent urban areas, and even as places of permanent or weekend residence, rather than centres of agriculture, even though much of their appearance depends on continuing agricultural activity. This does not seem to have given rise to any major conflicts, and may best be seen as a reasonable balance in certain kinds of area, although it may stifle new developments such as wind-farms.

m) The balance between top-down and bottom-up development initiatives has, in general been reasonably well resolved in most EU areas, although this remains a particular complaint in some new Member States (Somogy, HU and Caras-Severin, RO). This is not always the only problem, however. Sitting a nuclear power station in an area of outstanding natural beauty (Gwynedd, UK) or removing tax advantages for farmers whose incomes from non-farming sources exceed a certain limit, can also pose problems (Trikala, GR)

n) The case study results are generally consistent with, and complementary to, the findings from the I-O analysis, although it should be remembered that the case studies pick up on the diversity of situation within regions, as well as between them – with many of the areas containing mountainous
areas, plains, urban sites, nature reserves, coastal regions – whilst the I-O analysis focuses on the impact of agricultural activity on the local economy as a whole.
3 Summary of main findings & possible follow-up actions

3.1 Summary of main findings

Below is a short summary of the main findings from the case study and I/O analysis:

- The comparative analysis results suggest that Agriculturally-Dependent Dynamic (ADD) regions are more distinctly different from both other clusters and that Non-Dynamic (ND) and Diversified-Dynamic (DD) areas tend to be quite similar.

- In general, average incomes appear to be higher in ADD regions than in the other 2 regional groups (though the case study sample for ADD regions did not contain any low income areas, unlike ND and DD both of which contain countries with below 40% of EU average incomes - Somogy and BB - both 40% in ND, and Caras-Severin and Pieriga - both 30% in DD0).

- ADD areas also have more of their GVA contributed by agriculture, specifically, an unweighted average of over 7%, compared with approximately 5.5% in both the other area types (although both ND and DD have areas with relatively high agricultural value-added (10% Somogy in DD, 16% Caras-Severin in DD).

- Also in terms of agricultural diversification, ADD regions appear to rank fairly high, along with ND areas.

- ND areas seem to be most active in terms of local energy generation (essentially bio-energy), with solar and wind in more developed regions (e.g. Germany, Austria, France).

- In virtually all areas there is concern about the quality of the environment, future of agriculture and cultural heritage, with a high degree of local identity. This concern does seem to be the common element that unites the diverse interests in pursuing new developments in the regions, with all the implications in terms of devolved responsibilities.

- Non-agricultural diversification seems to predominantly reflect the tourism potential of an area more than anything else. However, this appears to correlate only with specific parts of a region, rather than with the overall categorisation of the region (although some ND regions also show similar potential such in Waldviertel, Austria and Eberberg, Germany).

- The multi-dimensional character of many regions (Note: the Gers type region, still being relatively agriculturally focused, is probably atypical in more developed MS), can perform differently on different dimensions. This implies that policy interventions etc. should be judged in relation to different elements - potential for tourism, scope for energy development, scope for agricultural diversification etc, need to better educational or institutional support, rather than single indices, categories or groupings.

The following chart and table attempts to provide a crude comparative summary of the regions:
The table below provides a simple summary of the case study results by region, including an assessment, using a ranking system, providing a qualitative assessment of whether the following factors are above / below / or at the national and/or EU average:

- Local concern/motivation regarding the area
- Entrepreneurial spirit/energy
- Scale of agricultural diversification
- Scale of non-agricultural diversification
- Level of activity regarding alternative energy development initiatives
- Degree of institutional support in the region

The other parts of the table include:

- Average income in the region, as a % of EU average
- Agriculture share of value-added
- The overall forward linkage index (taken from the results of the Input-Output analysis)
- The OECD type of area
<table>
<thead>
<tr>
<th>CLUSTER / COUNTRY</th>
<th>NUTS code</th>
<th>REGION (NUTs 3 level)</th>
<th>Local concern / motivation</th>
<th>Entrepreneurial spirit</th>
<th>Agricultural diversification</th>
<th>Non-agricultural diversification</th>
<th>Energy</th>
<th>Institutional support</th>
<th>Average Income (% of EU)</th>
<th>Average share of Value-added (%)</th>
<th>Forward linkage index</th>
<th>OECD Type</th>
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</table>
3.2 Possible follow-up actions

Based on the findings from this analysis a number of follow-up actions could be considered:

a) To refine the approach and methods proposed for step 3 of the work programme for the group: To build upon the findings from step 1 & 2, it is proposed not to elaborate further on any possible ‘typology’ of rural areas but rather to focus upon identifying, in greater detail, key factors for success in enhancing the linkages between agriculture and the wider rural economy, linked to the implementation of policies and projects in specific areas.

b) Test the use and application of targeted case studies: The level of detail provided by the I/O and Case studies has been informative but not sufficient. Attempting to cover eighteen regions, in fifteen countries, with varying degrees of data and information constraints, has resulted to date in limited success in terms of meeting the objectives of this stage of the TWG work. Concentration on a smaller number of regions and allowing more in-depth analysis to be undertaken is likely to offer a more effective way forward to guide group conclusions and recommendations.

c) Extend the I/O analysis in targeted regions: By focusing on a more limited number of regions, more detailed analysis and inclusion of new variables can be considered that may allow, for example, more detailed disaggregation of agriculture and food processing; inclusion of forestry as a sector; greater disaggregation of the leisure and tourism industries. This would be done by use of targeted interviews using structured questionnaires in each region for representative units or/and local stakeholders. These results would then be collected, collated and analysed, building on the original I/O analysis outcomes.

If the above proposals were to be supported by the group, practical follow-up actions could include:

- Selection of up to six targeted regions in which the case studies analysis will take place. It is proposed to select the following:
  - 2 x ND areas, namely: Trikala, Greece & Somogy, Hungary
  - 2 x ADD areas, namely: Gers, France & Matera Italy
  - 2 x DDA areas, namely: Caras-Severin, Romania & Gwynedd, UK

- Setting clear parameters for the case studies analysis including definition of:
  - The targeted sub-sectors;
  - The relationships to be assessed
  - The overall definitions of success for the outcomes from the analysis which may include: (i) Identification of the factors for successful replication of such examples; (ii) Identification of mechanisms for dissemination.

Please note: The above summary conclusions and proposed next steps are provided for Thematic Working Group discussion purposes only and should not be considered as final outcomes from the initial analysis.